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# WTO: Governing Globalization Forces in the International Trade System

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## Abstract

The international trade is characterized by uncertainty, variability of events, but also and, above all, by the differences among the entities that populates the same context and shaping its configuration. This situation gives back more consideration to the dynamics shaping the deployment of the international trade system. Investigating the international trade actual context, identifying its actors, connections and interactions among them, the influences and the critical positions/roles that act in it is useful to understand the origin and nature of this dynamics. In this way is facing more and more relationships among structure and functions of components: it's emerging a system. Then the adoption of the perspective of viable systems will allow to identify the connections and the critical forces conditioning the operating system and its continuity. These forces, tight interconnections and their control ask for a structure, but also to govern such a reality. The aim is to depict the supra-national order in which becomes critical the determination of a capable entity to develop an institutional role exerting a crossing coordinating/governing action.

## Introduction

World liberalization of goods and services represents a crossing deregulation originated by nations concerned in General Agreement on Tariffs and Trade (GATT). The Agreement aim, when it was subscribed, was the progressive reduction of barriers to trade mobility. WTO (World Trade Organization) is the international institution overseeing processes and conditions for progressive reduction of artificial barrier erected by nations to protect national economies. Its supervising and regulating function was founded at the end of 1940s conjoint to the foundation of IMF (International Monetary Fund) and WB (World Bank). In succeeding of years it evolved in WTO. The organization is constituted of 148 nation-member (at now). Its action is supervised by Director-General who coordinates the units concerned in specific critical sectors for trade liberalization.

Nations joining WTO shares the usefulness of the principle of the lowering barriers for economic development and, consequently, they are engaged with their policies. Linked to these one is reaching of competitive advantage of nations. In a similar liberalized and ruled system of international trade, governments trade policies (and not only trade policies) are interrelated with dynamic interactions. They are able to influence also performances of international firms. National policies and international competition are causes for actions and determinants of performances of firms. Governments policies are directly and indirectly linked to actions of firms and they are causes of effects (intentional or not) on firms decisions and performances.

The international institution (WTO) influences competitive advantage of nations, originates conditions determining influences on competitive advantage of firms operating in nations and through its action could influence directly firms in a situation, like now, in which globalizing dynamics get over nations and crossing states through the boundaries.

Undoubtedly now there is a reality of the international trade characterized by uncertainty, variability of events, but also and, above all, by the differences among the entities that populates the same context and shaping its configuration. This situation gives back more consideration to the dynamic shaping and deployment of the international trade system. This dynamism represents the more critic factor of the reality that, moreover, takes on more features of system.

And is for this reason that we think to proceed to the analysis of the international trade in a systemic perspective, particularly following viable systems analysis, fit deduction to answer the interpretative requirements of such elusive, and sometimes evanescent, expressions of the system. The adoption of this perspective, putting itself in the side of the control unit of the system – we can say “catalyst subject” and potential governor of the system - will

allow to identify the connections and the critical forces conditioning the operating system and its continuity. These forces, tight interconnections and their control ask for a structure, but also to govern such a reality.

To complete this we have to investigate the international trade actual context, identifying its actors, connections and interactions among them, the influences and the critical positions/roles that act in it. We aim to depict, in this way, the supra-national order in which becomes critical the determination of a capable entity to develop an institutional role exerting a crossing coordinating/governing action. In this situation the institution components could be change and it has to adapt the formal procedures to relate with them because of their different nature and of their different requirements and "behavioral" features.

To the light of recent dynamics, also, and above all, in the international trade, then becomes clear that its unwinding escapes to the influence of the national authorities, and this situation becomes a crossing/transnational reality on which can intervene organisms that have a different role respect to the same governments and it is placed above of them.

The system, given this assumption, it will not work anymore for the international trade regulation, but its task will be monitoring and addressing trajectories of action and balancing the influences to reach the equilibrium among interests of relevant subjects in the context of the international trade. It will pass, so, to a condition of regulating system to the governance and government of the system that will need structures, methods and tools for the action.

In this way we can work out a model of analysis, but reaching also the logical diagram and the conceptual structure by which the "organ of governance" (the WTO) should operate.

## **Phenomenology**

International trade proves to be, in its external expression, a whole deal of goods and services, transported from a place to another beyond the geographic and national boundaries. From that emerges the dimension of the phenomenon engaged with analysis: its composition made up kind of assets, layout of the quantities/volumes of merchandises shaping international exchanges. The study of the phenomenon brings to the inquiry about the origin, the destination, the quantity and means by which movements realize themselves. The result makes us to know the feature of the phenomenon: structure and function mechanisms.

Such factors are fundamental elements to understand the dynamics and the causes that produce and that determine the activation of the whole events of the trade. The subordinate results from the development of such events are further cognitive moment to establish the effective activations by whose the exchange is accomplished. The awareness of the result and the way by which it is reached, in other words, draw out the pattern through which it is formed, allows to know the interferences and the manipulations that influences it and the way by which the process is carried out, shaping a specific form, is productive of results directly connected to the fact that it is been realized. Furthermore defining the dynamics of the process supplies information about pushes that determined the choices of the actors. However, any formulation will have always tied up the observer different interest determining a different perceptive context. This premise allow us to understand differencies among international trade scholars: e.g mercantilists meant commercial exchange a phenomenon of the production of the wealth; classical and neoclassical economists meant, instead, the study of the phenomenon as a part of the general economic equilibrium. Since classical period a lot of theories supported the analysis of the international trade in the limits of real and financial balances. Financial equilibrium objective strenghtned the need to consider the exchanges beyond boundary also in the key of public intervention and, therefore, of economic politics and involvement of the public power. The analysis of the composition of the international trade and its origins outlined how, since a certain period was not ever nations to influence the direction and the quantity of international goods, but a new player: firms.

Unveiling this reality and uncovering the role the firm palyed in the field of international trade led to highlight the way firms create wealth, their strategies, their decisions making about decentralization in foreign countries, the management of the international operations. Infact, studies enlarged from international trading and international markets to the strategies in international market, opening the road to set up the international marketing studies. This perspective met the evolution of the dynamics of the international trade, whose features was changing.

These dynamics steered also the theories of the international trade. The intense activities of the scholars, from Ricardo to Ohlin, to the same Porter that allowed a bridgehead between theories with macro base to those with basic micro, to the managerial theories (Fayerweather, Thorelli and others had spoken from trading to marketing strategies) are a witness to this.

However, the international trade, over the emphasis about the different sights of study, is conditioned and shaped by various subjects that influenced its course, its direction and its composition. Working and performing of each of them determines the same existence of the international trade. For example there are subjects that activate relations, on that influence the governmental politics so like the preferences of the consumers. This whole of entities interact across connections established among them to the accomplishment of the exchange, but their actions are influenced by consumer preferences, lifestyles and rules of consumptions that determines implicit or explicit rules of the game: in this way is emerging a system. It's the same to say that all the interacting parties move themselves towards the precise end of the exchange beyond boundary even if the interest of the individual has precise nature and is autonomous in the respect of the interest of every other party simultaneously involved in the same process.

Since the ancient times, the search for necessary furniture to survival and/or instrumental to the self development or making easier human life was the activity that distinguished the social being. The systematic unavailability of goods and their consequent search, united to the exceeding availability of other kind of goods (which of the two causes was the first one to move human action?) originated flows of exchange among different populations even separated by wide geographic distance or whose achievement natural obstacles made difficult. The civilization helped the exchange activity more structured, on which some populations based the acquisition of their power on the possession and the control of resources - so, today we would say it was a way creating value - and that provided them the supremacy, the geographic expansion and the economic and political glory and the pride.

The Mediterranean sea was the kingdom of the trade: Phoenicians was the first, then the Greeks and again the Romans. For these one trade had a meaning even more detailed: it was not alone an exchange with other populations, but precious transfer of furniture, equipments and assets from the colonies towards the rich places of the Empire, above all Rome.

Moving away over time and space from the events of the precursor civility of the European culture, dealing in goods against something of other, constituted the engine of the human activity<sup>[1]</sup>. We can think about the Celts, the Scandinavians (with their ships), the Mongolians of the steppe and to the Arabians and to the Tuareg of the desert that dealt in goods to increase their availability of assets<sup>[2]</sup>.

In the medieval age the "mercatura" remained, in an isolating and decline landscape, a flourishing activity. Those merchants who developed such an activity, little by little, succeeded in a position to compare with those people who had the power of the land, the feudatory.

Some of them were able to accumulated richness and treasures by trade. This was also financial availability. Meanwhile, shapes of government were evolving. Well, the master of the territory to preserve the geographic extension of its national power had to support productive (trading) activities and subjects producing wealth: this was the way to maintain the safety of the state. The consequence was the increasing importance of the issue to find resources to maintain the state and the faithfulness of the subjects that provided wealth. In practice, it resulted of a thick institutional plot constituted by the state shape, the legal regulation that sustained it and the taxation structure, in which took on fundamental importance the production of wealth<sup>[3]</sup>. This institutional framework convey to form and to emerge international trade structure system whose central reference was the institutional entity: the sovereign<sup>[4]</sup>.

In this historical situation-institutional the first positions to favor of the trade took shape like prior factor to growth of the wealth of the States. Different needs of the states addressed to different study center. All of the cognitive efforts, however, lead to and converged towards a unique interpretation: the international trade like a factor of creation of the wealth managed managed by the sovereign for the well-being, the obedience and the legitimization in respect of the subjects. Contingencies in each state characterized the contributions of the scholars that studied of the phenomenon<sup>[5]</sup>. Monchrétien in France, Haley in England, Scaruffi and Davanzati in Italy<sup>[6]</sup> - was some of these scholars - did not discuss other that of the solutions to the problem of the coffers of the State and the growth of the wealth that international trade could create. The economical motion cultural that it is formed around such phenomenon was named, mercantilism and steered first studies that brought to the to rise of the economic

science<sup>[7]</sup>. In England the matter was transfers from colonies, in France the issue was precious finding of metals rebalancing the coffers of the State, in Italy the culture of the commercial exchange had been the situational factors that marked the interest around the international trade<sup>[8]</sup>.

The wealth of the nations was still the object of the analysis of Adam Smith, but its interest moved toward the allocation and the production of the richness and towards the study of the value<sup>[9]</sup>. The laissez-faire economics that derived treated with allocative matters for economic equilibrium. The international trade, in such conceptual landscape, was integral part of the formation of such an equilibrium. Its belief was into the balanced strenght of the forces of the market. The laissez-faire, in fact, has its ideal essence of system in which the natural forces steer the allocation of the resources of a society without political and social manipulations of the national authority<sup>[10]</sup>. The international forces are governed by the flow of the exchanges and balancing forces of the advantages. The nature of such advantages was explored, deepened and, so, fundamental object of Ricardo studies.

The phenomenon of the international commercial exchanges was explained, at the period of the Industrial Revolution, like exchange enabled between two countries in the productions in which each of two pit specialized, in which everyone possessed, in virtue of the specialization, an advantage of cost that make suitable the exchange of the good produced in a country with that of the another country<sup>[11]</sup>. In reality, in the ricardian theory, the advantage was derived from the labour factor; in fact, the theory has like a reference the specialization of the labour. Then Heckscher-Olin<sup>[12]</sup> studies emphasized, instead, that the production in which a nation has an advantage is that in which is employed the factor of the production endowed by the Country, and of which surely an endowment presents a cost, compared to other countries, is specially low, determining a total advantage of cost relatively to the same productions of the other Countries. In truth, actual such last condition gave back necessary a greater articulation of the theory – the initial hypothesis very restrictive with respect to the reality - as does not hold account of the dynamic reality of the economical phenomena, it not perfect equality in the productions, of the organization of the production (the increasing yields of staircase, for example) and l'imperfection of the competition in the markets<sup>[13]</sup>. The back concept remains that of the strong incidence of the original endowment of the factors of the production. Infact in subsequent economic studies the nation is considered as a complex system provided of infrastructures, systems of production and offer. Such advantages are fit to represent a compared advantage that is expression of everything been it nation, such to be depicted it as a competitive advantage of the nation, determined and built across actions of the comprehensive national system. And the nation system that in the competitive advantage of the nation gives specific endowment to the state-nation changing its role and function. Such theories emphasize the role that comes away taking on nations from the end of the Fifties, when the development of the international trade was driven by the activity and by the actions of the enterprises. They were the multinational enterprises to give strong impulse, how we said, to the motions of goods and of capitals, producing a true and actual economical phenomenon formalized by the theory of the international cycle of the product. Then also the theory of the international trade emphasizes the way by which a central role in the international development goes to the enterprises. The World Bank, even if in different perspective, had always considered as international trade have a critical role in the economical dynamics of development of the States, of the enterprises and individuals<sup>[14]</sup>.

The competitiveness of the nation is a result of the system of resources/factors, conditions of the demand, strategy and structure of the competition, correlated and support areas, than the national politics and governmental actions<sup>[15]</sup>. These last determine a virtuous circle that influences investments in the attraction capacity, but simultaneously creates positive conditions for businesses development that, persuading firms to invest<sup>[16]</sup>.

## **From the Trade to the Actors: The Enterprises**

The most significant changes in the composition and in the direction of the international flows of changes of goods recorded in the XX century, between the end of the Forties and the begin them some Fifties. At that time these changes emphasized important events in financial transfers and in the productive investments. The first, in fact, found their engine not more in exclusively financial investments with speculative nature, but in profit bearing investments. The international exchanges were sustantious in 1850 and their development was considerable: from 1% to 7% of middle growth annual at the end of XIX century to 14% of the XX century<sup>[17]</sup>.

The statistical charts on movements of goods between the end '800 and 1929 show a continuous development stopped by 1929 crisis<sup>[18]</sup>. In the successive two decades the world trade pointed out a slowing, started an up and down process caused by protectionism that followed to the great crisis and political nationalist motions that stretched out to close the nations to the exchange. Only after 1950<sup>[19]</sup>, after a first phase of a geo-politicians order reorganizations, there was a renewal of the exchanges of goods. The data point out, however, the features than a world order went taking on.

During Fifties the flow of goods from the traditional productive countries towards the countries did not increase because of the fact that the firms located production units in the countries previously consignees of the exports. That it provoked, comprehensively, a movement from flows of goods to flows of capital, but also in the the direction of the same ones. The flows of capital directed themselves in entry in the countries to realize direct investments, then in exit from the countries of production towards the countries of origin of the houses-mothers. The flows of capital arisen from direct investments of foreign countries (IDE) became more significant. Capitals has been about destined to the accomplishment of the investments and resulting from the IDE<sup>[20]</sup>.

In the Seventies the energy industry consolidated its power that met the transformation in monetary and producing flows, outlining a strong interdependence on the economical phenomena<sup>[21]</sup>. In these last years is pointed out a slowing in the growth of the volume of the exchanges that not alone drift from an economic situation of crisis, but from a productive change of specializations and from the change of the origin of the same exchanges. Also a light slowing in the growth of the flows from Countries that held the greater contributions of the international trade depressed the comprehensive rates of growth of the exchanges. The variations in the courses of the international exchanges were derived also by the internationalization of the production that if, from a part, make move the flows to the markets of the capitals, on the other hand determined corresponding changes in the productive national autonomies. That it was testified from the invisible growth of entries, namely specific flows of wealth not by goods, but by capitals and services. In the same period it changed also the composition of the exchanges of goods: the leading assets (agricultural, mining, the so-called commodities) lost the supremacy to favor of the manufacturing products. It provoked the development of the exchanges of the whose countries structure productive was based on the manufacturing areas.

In synthesis, all that steered to a new layout of the commercial connections, creating new orders of the international trade<sup>[22]</sup>. The years '80-'90 confirmed the comprehensive growth of the exchanges of goods, with changes in their origin. In 1980 the international exchanges of goods were alone 68% (in volume) and 59% (in value) with respect to 1999. The development tendency is continued also in the period 1990-1999, in fact the international exchanges of goods are increased of 74% (in volume), of 60% (in value)<sup>[23]</sup>.

## **Subjects and the Connections in the International Trade**

The exchange of goods and/or services beyond the national boundaries is established between two coincident interest centers, but with an opposite mark. It is a connection purely contractual, that it has as an object the trading practice. Technical practice describes the mechanisms of operation and the framework to enable mechanisms and the subjects that enter in the connections activated. In this way, we can draw network of relations among subjects that, to different right, enter in the construction of an operation diagram corresponding to the international trade. The exchange of goods and services took place, in fact, among entrepreneurial entities (different firms or also subsidiaries of the same enterprises geographically decentralized); but to carry out the relation other connections are needed make or facilitate the accomplishment of the commercial transfer possible.

The firm has to fulfil its duties imposed by local or national public agency, for example state regulations of commercial protection, or sanitary rules, to carryout rules and of international conventions (e.g. International Chamber of Trade and the Incoterms)<sup>[24]</sup> that are only examples of bind and rules condition the pattern and the flow of the exchanges. Nevertheless, the exchanges accomplishment is also determined by the presence of subjects similar to the firm, moved from the same interest and from the same needs of survival and that enter in the same context in the conquest of the connection with the opposing party, as competitors so as final consumers. The flow of goods and services, in fact, is influenced by consumers that, to second of their capacity of the acceptance of the

business output, can determine the choice of the quantity of products to destine to a specific geographical area. In this way the arrangement of the consumption of a goods or services influences the direction and the layout of the international trade.

It has seen, besides, like in the international economy it is pointing out the role the States play. Depending on political positions and/ideological, either, the role of the State remains always critic to determine the fluidity or rigidity of the international exchanges. The productive interest nature and safeguarding the economies persuades to protection positions and tariffs and duties imposition, in other words erection of barriers to the entrance of products, services, investments or technological transfers. The national power does some governments the agents of reference for the overcoming of the national boundaries. The state institution, in virtue of the actual position, supervises, observes and intervenes to maintain the coffers of the State, to develop and/or to protect the social and economical situation of the nation. The achievement of these purposes is obtained through executive structures that apply the more fitted program to the area of interest that carry out the governmental programs. The action of governs, moreover, more often, it is coordinated to the events that could verify in the national territory; both the power of repercussion of these events is so wide to exercise on the inside reality (economical, market or political fluctuations), and the effect of the intensification of the international interrelations – agreement bilateral, multilateral nell'longed for of international organizations – that, at the same time, are cause and the effect, of the necessary coordination inside national boundaries. The decisions of the governments breed a trial of cause- effect, in an iteration process, of the realtions in the international trade also. The action that they can develop through executive structures – like ICE and the SIMEST in Italy or the JETRO (Japanese Enterprise Trade Organization) in Japan – would allow to activate the relationship among firms for the international operations. The considerable role of the states, in the merit of the protection, promotion and development of the international commercial realtions, is carried out about of creation of infrastructures that are determinant factors for the competitive generation of advantage of the firms and of the nations. The competitive position of the nations is expressed across the entities operating in national field<sup>[25]</sup>.

Just firms, their productive and/or commercial units that are able to activate the basic relationship of the exchange of goods and/or services. Distribution channel structures determine as much as connections (because they are subsystems of firms) in the international trade, because of their capability of influence on the acceptance of the consumers<sup>[26]</sup>. On the other hand consumer associations and the consumer culture and values make the consumer become an entity in a position with direct influence on the decisions of consumption and of purchase from which derives the capability to increase or except the intensity of the international flows of the exchange. The same connection can allow to reach different ends, then the international realtion of exchange could enable a sale, transfer knowledge among branches placed in different countries or create a collaboration. The distribution of the preferences, the economical availability-financial and the cultural level are all factors that determine the distribution, the quantity and the direction of the trade among countries. The distance, the lack of knowledge, the scarcity of means to go beyond the ignorance of the foreign system could require the support of other subjects establish the relation. This question carry out other features and other relation in the flow of the international trade: trade intermediaries. They could play a strong role influencing the trade in the hypothesis of indirect export and a medium level of influence in the case of direct export. This figure could alter the order or the structure of the trade, without considering trading companies that succeed to define their same the international connections with considerable capacity of influence on the whole system and its structure.

The entities that enter, to different title in the relational net of the system of the international trade have equal interests, but of opposite mark, creating a composition of interests to establish and to maintain a consonant relation to make interconnected their mutual structures; even if, however, let remind that among different structure, driven by different values, it exist divergences of position in the definition of the formal procedure across that the interrelationship activate themselves and/or on their potentials consequences on the other systems, so much to carry out the entity to find conflicts in order to deteriorate the system of connections and interactions in the system of the international trade.

## The System of the International Trade: Viable Systems Perspective

The international trade of goods and services seems to be only a phenomenon that results from the synthesis of a plot of relations and interrelations among different entities that are involved in it to operate/to work; but it is the activation of such a tangle of relations carries out the system. Its essence is given by interrelated and interacting<sup>[27]</sup> parts for the accomplishment of a common end, that makes the system emergence<sup>[28]</sup>. The characteristics of the phenomenon pointed out that, also based on the description drawn in the previous paragraph, the entities that populate it, in various roles, are involved in the international trade of goods and services. The reason for which the entities activate relational channels among them is found in the need to carry out the transfer of the object of the exchange from an area to another, between areas submitted to be able state/governmental different, with social founding, economical, regulations and political too different. Subjects representing the different interest centre, so, constitute the parts. The role of the exchange of relations and/or services, of transportation, of mediation, of territorial promotion, politics and financial, and of authorization are the various kind of relations to establish to carry out of the system. Their continuous activation and existence does to emerge the system.

The system of the international trade exists when there is in fit a flow of contacts between two or more enterprises than either have an interest to transfer goods or services from different sides of the globe and, to the end to obtain the spacial passage of the good and/or service – realized by banks for payments safety, or will do the same for fluctuations in the prices of the good/service object of the transaction. But the system emerges also when a single firm explores the market to identify attractive foreign markets, supported, or not, by a skilled and capable intermediary, rather than by public structures supply information on the features of the foreign markets, instead of research collaborations on foreign markets with other firms (or to undertake all and three the typologies of contact cited simultaneously).

Each of this entity constitutes a concentration of interests which define the fundamental substrate to the search and the activation of connections to determine the grade of the span of the firms to dialogue with other components of the system.

In practice, the need to place on the market the actual products (structural) and the orientation to the internationalization landscape can define the necessity and the will to open the system activating relations with the other parts.

In the time, in the international context, there was structural changes combined with orientation, value and ideological changes, revealed and specified in the values and in the structures of the entity that are components of the system. These modifications had caused changes in the capability and the willingness of the activationa of relations. Like a consequence the experience is that of difficulty to find consonance (in viable system, means identify points of common interests by which the entities meets the dialogue to make value). We can remember conflicts and different interests expresse by some entities appeared on the stage in the last years, it is seen the NGO, environmentalists, ecologists and no global movements). Although the difficulty of connection exists a certainty, sprung by perpetuating the exchange in the time. Such a perspective lead, already to the end of the Forties of the XX century, some States to sign an agreement across which pledged to dismiss themselves all the possible causes could obstacle the functioning of the system<sup>[29]</sup>. That it outlined the logical diagram to define the first rules of address, creating fundamental a whole of rules that subscriber Countries committed to observe. Rules had the scope to liberalize, they did not define how to market, thing and with who to related with. This framework was the GATT (General Agreement on Tariffs and Trade).

The agreement traced principles – like the fundamental Most Favoured Nation clause - with the purpose to reach the development of the exchanges and through them the production of the wealth<sup>[30]</sup>.

Now the system of the international trade is characterized by a net of relations connected in the principle of the free exchange like unifying element.

The system was not ever a viable system in an embryonic state, but began to evolve itself towards a system in accomplishment. It tended to the completion of the viable state, but it has not reached it. There were events that acted as introduction of fact for the to be depicted itself of an accomplishing system and actual completion had been the continuous adherence aside of an always greater number of states, a lot include in the actual action part of the

earthly surface, namely of the national territories in which the globe was divided. The agreement concetion would show a top-down creation pattern, even if joining the agreement happens across a bottom up trial. The institutionalization of the agreement a top-down draws up the first vialtal phase of development of the system. (It is a demonstration like the system is becoming viable).

Such an institutionalization becomes more and stronger when there is a tangible structure than is not alone a declaration of purposes, but takes on the clear configuration through the identification of decision-making, of staff and executive and of control organs. That it happens in 1994 with the constitution of an international organism: the WTO.

The complexity of the context and the real and potential conflicts already steer States to unite itself in an organism that supervises to the fulfilment of the rules of the free exchange (in origin that was functional to the to finish itself of a most spacious economical system international). In reality a free exchange has to be also fair<sup>[31]</sup>.

What emerges it is the equity and of stable composition and importance of the property and of their governing body, that are all of the states; without the abuse of power deriving from strong positions is possible to obtain the comprehensive growth.

The phenomenon of the globalization, in fact, would carry in short time to make to reflect the abuses of power of transgressor. In the opposite case it arrives to a demote system of exchanges and to a degeneration of the value created. The presence of a supranational organism, to this point rises also to function of safeguards some survival of the world system of exchange to create that value that can be derived alone by it. Conflicts rise up for scarcity of consonantic capacity between the entities. Then there are some entities, like the environmentalist or ecologist associations, no global and social forum that dispute the possible pathologic dependence (we could define it “resonance”) that each powerful entity could release resources with respect to the consumers, to the states and other enterprises can establish in the system, or rather dispute the system of the international trade like the supra system in which stretches out to make to cancel the systems that enter to do it.

The institutive agreement of the WTO fixed a “physical” architecture that formerly was alone an ideal/logical framework. The operating structure is completed by a component that has a function of control. Besides of the presence of such a component defines also precise rules. This happens across the DSB (Dispute Settlement Body) that begins bureaucratic process resolving trade quarrels between states and that “is vital for enforcing the rules and for ensuring that trade flows smoothly”<sup>[32]</sup>. Again, the system shows its nature, more and more when the ONG enter into decision process, even if in order to give simple advisors or information; when 148 Countries of the globe joins the agreement, representing 90% of the world population. All these components (national governements, ONG and others) enter in a relation of “consonance” in which they outline themselves those we call “opening conditions” that are channels and way to dialogue and interact one another. The whole consideration of each part of the system of the international trade in the formation of the will, the insertion of each the problematic and all of the objects of the international trade and the force of the rules shared a lot to make them become constraints for the functioning, because of the unfulfilled rules constitutes disapproval (and decreasing of “consonance”) and gone out or to marginalize by the system caused by incapability to relate with others.

The respect of the variety and the consequent maintenance of the degree and capacity of opening and the consequent relations of consonance obtain themselves with the clear definition of the of the organizational diagram across the introduction of an agenda/summit of the Parliaments, would carry out the completion of system.

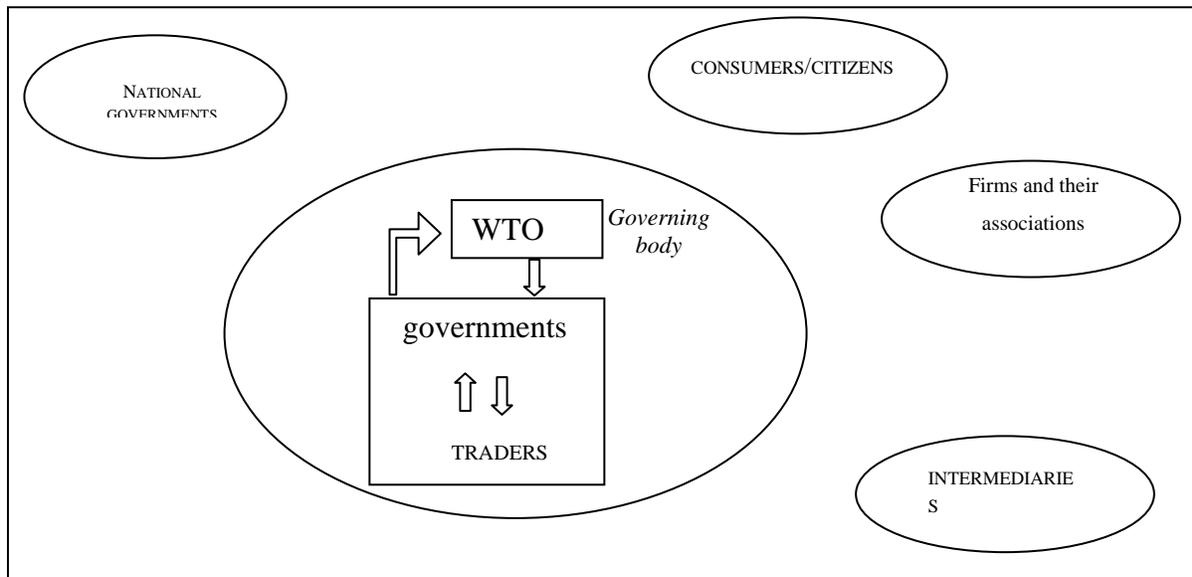


FIG. 1: THE CONTEXT OF THE INTERNATIONAL TRADE AND THE SYSTEM

## Conclusions

The international trade constituted and constitutes a flow in a position to create and increase the available wealth for the player of the system. The transfer of goods and services in their motions, almost like mechanical flow activated by the productive entity moved, actual for its role to allocate wealth. Every perspective of study was anchored to specific points of observation that risked to privilege some dynamics, misconsidering others ones. The application of the systemic approach allowed to frame the phenomenon in the present context, to make free it by the single perspectives exploited up to now. These ones, in their reductionistic approach give the emphasis of some components, leaving the others in a misconsiderations and risking to not succeed to attribute the parts their actual role, in function also the interpretation and the determination of the typology of connections that united them. Besides of, with viable systems approach is possible to consider the emerging dynamics by the operation of the system that the same parts form. Viable systems approach, so, into consider the parts, is the connections that connect agrees to pick them the reality of the phenomenon in its operation. In this way, it is possible to snatch the changes caused by the deployment of complexity that it is tested in the system like an effect of indeterminacy conferred by variety and variability of the components of the system. The incoming of such new components goes attributed indeterminacy of the operation of the system, as has “confused” the equilibrium of the present connections, intervening with new capacity of flu and of pressure. That it make emerges requirement of a point of reference, namely of a component in a position of to take on such role between the parts involved, deputy part of the system. From that it emerges a pertaining to perspective sight of warning sign towards the formation of an organ of coordination and for the to form itself of a true and actual viable system. Recognizing the system viability makes more and more important its governance. In the international trade system this role corresponds to that one of WTO. Qualifying the WTO as governing body of international trade implies consequent consideration about its framework and structure fit that it opens new ways for the analysis.

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- [23] P. Stampacchia, "Dal commercio estero al marketing internazionale", in *Sviluppo & Organizzazione*, n. 34, marzo-aprile 1976.
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- [29] WTO (WORLD TRADE ORGANIZATION), *Statistics 2000*; documento pubblicato nel sito [www.wto.org](http://www.wto.org).
- [30] P. Zoccoli, *Il WTO ed il vantaggio competitivo della nazione e delle imprese*, in *Economia e diritto del terziario*, fascicolo 2, 2004.

## End Notes

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- [1] That's matter for social anthropologists, economic historians Cfr. K. Polanyi, *La grande trasformazione. Le origini economiche e politiche della nostra epoca*, Einaudi Paperbacks, Torino 1974.
- [2] Phoenicians, former ancient near East population that put into practice goods exchange on the sea, was navigators because they looked for lands to procure resources given the poorness of their origin territories. Then their spirit converted in the research of "the new". Then the exchange element was conjoint to that one of the research and knowledge that intensified the trade. The poet told this spirit "... Fatti non fummo a viver come bruti, ma per seguir virtute e conoscenza" Cfr. Dante Alighieri, *Divina commedia – Inferno – Canto XXVI*, versi 18-20. Knowledge looked like the alone engine for the uman action for ancient philosopher. See also G. Barbieri, *Fonti per la storia delle dottrine economiche. Dall'antichità alla prima scolastica*, C. Marzorati editore, Milano 1958, pp. 5-11.
- [3] P. Saraceno, editore Vita e Pensiero.
- [4] U. Meoli, *Lineamenti di storia delle idee economiche*, Utet libreria, Torino 1991, pp. 57-58.
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- [6] J. Griziotti – Kretschmann, voce *Mercantilismo*, Dizionario Enciclopedico UTET, Torino 1970.
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- [9] The issue concerning external economies of scale had a central role in the Adam Smith studies, meaning economies that have thier source in geographical connections among operational entities. Cfr. P. Tiberi Vipraio, *Da mercantilismo ...*, op. cit.
- [10] Plausibile deviances deriving to abandon to the fate poor territories (less endowed or in a disfavoured geographical location) showed the bound of these position, opening to etic issue and *fair trade*. Cfr. P. Tiberi Vipraio, *Dal mercantilismo alla globalizzazione...*, op. cit.; J. Bhagwati, R. E. Hudec. (editors), *Fair trade and harmonization. Prerequisites for free trade?*, vol. I *economic analysis*, The Mit Press, Cambridge, Massachussets 1996.
- [11] F. R. Root, *International trade and investment*, Seventh edition; op.cit.
- [12] Classical economics, in primis, considere labour factor able to increase the productivity through specializzazion, meant like the improvement of the quality, converted also in quantitative increase. The Smith example about making of pins is representative of this.
- [13] R. Roccas, *Nuove teorie del commercio internazionale*, Etas libri, Milano 1975.
- [14] P. Ciocca, "Col favore della retrospettiva: L'economia mondiale nel XX secolo" in *Economia Politica. Rivista di teoria e analisi*, n. 3/99; G. Facchini, G. Willmann, "Commercio internazionale e benessere sociale"; in *Economia Politica. Rivista di teoria e analisi*; n.1/2000.
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- [16] P. Zoccoli, *Il WTO ed il vantaggio competitivo della nazione e delle imprese*, in *Economia e diritto del terziario*, fascicolo 2, 2004.
- [17] P. Ciocca, "Col favore della retrospettiva: L'economia mondiale nel XX secolo" in *Economia Politica. Rivista di teoria e analisi*, n. 3/99.
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<sup>[23]</sup> Wto, *Statistics 2000*, documento pubblicato nel sito [www.wto.org](http://www.wto.org).

<sup>[24]</sup> L. Lombardi, *Guida pratica per l'esportatore*, Franco Angeli, Milano, 2000; A. Foglio, ...; Comba, *Commercio Estero*, Il Sole 24 ore, Milano, 2000.

<sup>[25]</sup> M. E. Porter, Il vantaggio competitivo delle nazioni, ....., The Author says that it is exploited by effectiveness and efficiency of the industry.

<sup>[26]</sup> A. D'Amato, D. Tortora, P. Zoccoli, "La customer satisfaction e il sistema di consumo: ipotesi per la creazione di un differenziale competitivo", in "Esperienze d'impresa", Serie Speciale S1, 2002.

<sup>[27]</sup> An interrelation shows linkages inactivated by flows coming from and addressed to each part that is involved in the context. The interaction is the inactivation of the relationship through a channel of communication (relation). The interaction and its functioning marks the emerging system. Cfr. G. M. Golinelli, *L'approccio sistemico vitale* ..., op. cit.

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<sup>[29]</sup> The different faces of the issue concerning the insulated commercial relations after trade liberalization (Second Postwar)" to which follows supranational integration. Cfr. F. Fortuna, *Commercio internazionale. Lineamenti tecnico-economici*, dott. A. Giuffr  editore, Milano 1977.

<sup>[30]</sup> General Agreement on Tariffs and Trade.

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<sup>[32]</sup> [www.wto.org/english/tratop\\_e/dispu\\_e.htm#intro](http://www.wto.org/english/tratop_e/dispu_e.htm#intro)

# **The WTO's Challenges in the New Era: Membership of the Former Communist Countries and the Development Issues**

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## **Abstract**

**One of the traits of the economy after the World War II. is the increased importance of the globalization. This brought about the need for common rules in trade between countries and the idea arose to establish an organization that would handle the multilateral trading system. Countries signed the General Agreement on Tariffs and Trade (GATT) that set a framework for international trade and liberalized it by lowering tariffs on imports of products. This was the initial step towards today's World Trade Organization, which unites countries with various economic powers in order to improve the welfare of the whole world. In our work we would like to present the WTO, its historical development, basic rules and procedures. In the second part, we will show various cases of former communist countries in their effort towards their accession into this organization, and finally a special focus is put on Slovakia and describe its relation to the WTO.**

## **From GATT to the WTO**

The World Trade Organization (WTO) is up to date the only international body dealing with the rules of trade between nations. As stated in the Paragraph 1 of Article II. of the Agreement Establishing the World Trade Organization, "The WTO shall provide the common institutional framework for the conduct of trade relations among its Members in matters related to the agreements and associated legal instruments included in the Annexes to this Agreement."<sup>i</sup> Accordingly, the WTO agreements negotiated and signed by the bulk of the world's trading nations define and provide important and necessary legal ground-rules for international commerce. They are essentially contracts, binding governments to keep their trade policies within agreed limits.

Establishing of the WTO was neither fast nor easy. In fact, it took almost fifty years until such a complex legal organization, that would be able to facilitate all the needs of today's trade, could come into being. And yet, this long-lasting process is not finished, daily bringing many new problems to be solved.

### **Historical Background**

After the World War II. the idea was developed to create an institution that would be in charge of handling international economic cooperation. This was supposed to become the third part of the "Bretton Woods Institutional System", joining two institutions today known as the World Bank and the International Monetary Fund.

The plan of the 50 countries, participants of the World Conference on Trade and Employment which took place in Havana in 1946, was to create a specialized agency of the United Nations called the International Trade Organization (ITO). "Restoring international economic growth and stability through the promotion of trade was crucial to securing a lasting peace after World War II. It was this vision that led to the creation of the multilateral trading system in 1948."<sup>ii</sup> At first, even before the ITO Charter could be approved, 23 countries decided to start the negotiations to reduce and bind the customs tariffs and in this way to support the trade liberalization. The negotiations took almost two years and resulted in about 45,000 tariff concessions. In order to protect the value of the negotiated tariff concessions, they were combined with some of the trade rules from the draft of the ITO Charter, and signed by above mentioned 23 countries on October 30, 1947. In January 1948 they came into effect as the General Agreement on Tariffs and Trade (GATT).

The ITO Charter was agreed to only two months later in March, but never entered into force. The opposition in the US Congress and legislatures in some other countries made it impossible to ratify the Charter, and the formation of the ITO was definitely ruined. As a result, the GATT, which was a "provisional" agreement based on tariff reductions, remained the only multilateral instrument governing international trade until establishment of the WTO in 1995. However, the contracting parties agreed to abide by the rules and needed to meet occasionally to

discuss related issues and to hold trade negotiation. This had shown a vital necessity of a supporting directive and control body, what lead to the later creation of an international organization with the same name.

## **The GATT**

### **Basic Principles**

Adoption of the Agreement was the breaking point in the post-war free trade efforts. Already during the initial negotiations about the trade liberalization the contracting parties showed strong ambitions for “...entering into reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment in international commerce.”<sup>iii</sup>

To reach and to fulfill the above-mentioned objectives the GATT applied some simple, fundamental principles of the multilateral trading system. These run throughout all of the agreements, rules and documents:

- *Trade without discrimination*

- a.) The Most Favorite Nation Treatment (MFN) – countries cannot discriminate between their trading partners. This is so important that it became the first article of the Agreement stating that “... any advantage, favor, privilege or immunity granted by any contracting party to any product originating in or designed for any other country shall be accorded immediately and unconditionally to the like product originating in or designed for the territories of all other contracting parties.”<sup>iv</sup>
- b.) National Treatment (NT) – countries have to give others the same treatment as one’s own nationals. The NT applies once a foreign product has entered the domestic market, and since then should be treated equally to the locally produced good.

- *Freer Trade*

Encouraging the negotiations towards gradual lowering of trade barriers (both tariff and non-tariff) and this way opening markets to gain more benefits.

- *Predictability and transparency*

Country’s trading rules should be as clear to others as possible and any change has to be made public and transparent.

- *Fair Competition*

Discouraging unfair practices such as export subsidies, dumping and promoting non-discrimination.

- *Encouraging development and economic reform*

More benefits to less developed countries and countries in transition by giving them more time to adjust, greater flexibility and special privileges.

“The idea of the GATT as multilateral agreement is to provide the same rights and advantages for each contracting party by eliminating non-tariff barriers to trade and granting the MFN to all contracting parties.”<sup>v</sup>

### **Trade Rounds**

Since its adoption in 1947 until formation of a new institution for the international trade – the WTO, the legal text of the General Agreement remained almost unchanged. “The main GATT’s activities were the trade-tariffs conferences at which the negotiations proceeded according to the reciprocity and mutual advantages.”<sup>vi</sup> These conferences, also called the trade rounds, served as the multilateral negotiation place for common efforts to liberalize international trade and continue reduction of tariffs.

During existence of the GATT (1947-1995) eight trade rounds took place. As we can see in the Table 1, the first two decades were devoted to further reduction of tariffs and only the mid-sixties brought about new topics that should be taken into consideration.

TABLE 1 THE GATT TRADE ROUNDS

Year	Place/name	Subjects covered	Countries
1947	Geneva	Tariffs	23
1949	Annecy	Tariffs	13
1951	Torquay	Tariffs	38
1956	Geneva	Tariffs	26
1960-1961	Geneva Dillon Round	Tariffs	26
1964-1967	Geneva Kennedy Round	Tariffs Anti-Dumping measures Non-Reciprocity rule	62
1973-1979	Geneva Tokyo Round	Tariffs Non-tariff measures “Framework” agreements	102
1986-1994	Geneva Uruguay Round	Tariffs Non-tariff measures, rules Services Intellectual Property Dispute Settlement Textiles and Agriculture Creation of the WTO	123

Source: Trading Into the Future: The World Trade Organization. 2<sup>nd</sup> edition, WTO, Geneva, 1999, page 9.

The sixth – the Kennedy Round (1964-1967) introduced the Anti-Dumping Agreement, but the biggest change in the international trading system was the newly introduced non-reciprocity. This rule was exactly the opposite to mutual reciprocity principal and allowed lower tariff exceptions or usage of some barriers to the less developed countries and infant industries. Although at first it might seem incomprehensible, the truth is, that it brings positive results and many benefits for development in these countries.

Big importance received the Tokyo Round that took place in 1973-1979. Participants’ number grew to 102, what was almost five times as much as during the establishment of the GATT thirty years ago. At this conference was introduced the system of tariff “harmonization”, i.e. the higher the tariff the larger the cut. Attempts to reform the system and tackle trade barriers that did not take the form of tariffs emerged for the first time, leading to a series of agreements on non-tariff barriers. These barriers were divided into three categories: (1) barriers derived from customs value, subsidies and countervailing measures; (2) quantitative restrictions and quotas; and (3) technical and economical norms, sanitary and phytosanitary measures. Numerous agreements were signed only by few GATT members and, therefore, did not become part of the GATT. They were known as the “codes”, and some served as the base for future amendments during the Uruguay Round.

#### **The Uruguay Round**

With the development and changes in the international trade arose in the early 1980s voices to adjust the so long unchangeable General Agreement. After more than three decades the world trade became more complex, trade in services received higher importance and the foreign investments have expanded considerably. The GATT was no longer relevant to the realities, what convinced the members to reinforce a major transformation of the whole multilateral system.

The Uruguay Round was the last and the most significant of all trade conferences. The Conference was launched on September 1, 1986 in Punta del Este, Uruguay at presence of representatives from 92 countries. It took participants seven long years of discussions and negotiations to finally produce an Agreement, which, with annexes, ran to over 20,000 pages, and is one of the largest treaties ever signed. By the end already 123 countries took part at signature of the Final Act in Marakesh that closed the Round on April 15, 1994.

Originally, the agenda involved not just trade in goods, but also the expanding services sector, which at that time represented already 20% of global trade. Talks were supposed to extend the system also into new area of intellectual property, improve the complex machinery of the dispute settlement, and reform the sectors of agriculture

and textiles. Ministers did not have problems and agreed fast on the package that included concessions on market access for tropical products, the dispute settlements system and the Trade Policy Review Mechanism – the systematic and regular reviews of national trade policies and practices of the GATT members. But the problems arose during negotiation on the sensitive issues of agriculture and textiles. Two main actors, the USA and the European Communities (EU), had different views on the protection of agricultural producers and neither side was willing to give up its position. To add, new subjects on anti-dumping rules and the proposed creation of a new institution arose and prolonged the negotiations even more. Finally, the conclusion came after the compromise between the USA and EU in December 1993.

The delay in negotiations that were planned to last only four years brought about certain merits. Some aspects in the area of services and intellectual property progressed further than would be possible in 1990, which made the Uruguay Round Agreement the most comprehensive trade agreement to date, not to forget establishing of the WTO.

“The National Council of the Slovak Republic approved the final document by Resolution number 31 from December 13, 1994 and it was ratified by the President on December 22, 1994. The Agreement came into effect on January 1, 1995, according to the Paragraph 1 of the Article XIV., and complying with Paragraph 3 of the Final Act.”<sup>vii</sup>

#### **Formation of the WTO**

The World Trade Organization came into being after the Uruguay Round on January 1, 1995. It is the biggest organization dealing with the international trade with a fairly simple structure (Annex 1), where all decisions are made by the member countries through their ministers or officials. The seat of the organization is in Geneva, Switzerland with secretariat staff of 560 people headed by General Director Mr. Mike Moore from Australia. Secretariat’s main responsibility is to support WTO bodies’ performances both administratively and technically before, during, and also after the negotiations. Its budget for year 2002 is counting with 143 million Swiss francs.

As of January 1, 2002 the WTO has 144 members. With the most recent accession of China and Chinese Taipei in December 2001 “... the WTO’s multilateral trading system is now near-universal, covering more than 97% of total global trade.”<sup>viii</sup> Thirty other countries have interest to join; 28 of them are currently negotiating their terms of membership in the Accession Working Parties, and 2 are holding status of an observer.

The WTO replaced the GATT as a new multinational institutional framework for international trade. It is charged with overseeing the proper functioning of the expanding trade system and ensuring that it continues to promote the ideological objectives of free and open trade set forth by the original framers of the GATT after the World War II. It also monitors the trade activities of its members and secures that they adhere to agreed set of rules. Fulfilling the above mentioned is done through following functions:<sup>ix</sup>

- Administering trade agreements
- Acting as a forum for trade negotiations
- Settling trade disputes
- Reviewing national trade policies
- Assisting developing countries in trade policy issues through technical assistance and training programs
- Cooperating with other international organizations

#### **WTO Agreements – The Legislative Base of the Organization**

“The Uruguay Round saw both a widening and a deepening of the GATT multilateral trade system as it has been functioning for almost fifty years: a widening through the inclusion of cross-border services, protection of intellectual property fights and other additional agreements, and a deepening through the extension and supplementing of the existing GATT provisions.”<sup>x</sup> The General Agreement on Tariffs and Trade, which always dealt with trade in goods exclusively, has been amended and incorporated into the new WTO Agreements. Additionally, the General Agreement on Trade in Services and the Agreement on Trade-Related Aspects of Intellectual Property were included, and thus formed three pillars for the present-day multilateral trade system. All three agreements adopted GATT’s key principles, follow a single set of rules and a single system for dispute settlement.

*The General Agreement on Trade in Services (GATS)* sets the legally-enforceable rules covering international trade in all services sectors such as banking, tourism, transportation, insurance and telecommunications

to name few. It operates similarly to GATT on three levels: the main text with general principles, annexes dealing with rules for specific sectors, and individual countries' commitments stating which of their services sectors they are willing to open to foreign competition. Supplemental fourth element is special to the agreement in services only, listing areas where the MFN principle is temporarily not applied. To ensure that all operations are being followed properly, the Council for Trade in Services was established as an overseeing body.

*Agreement on Trade-Related Aspects of Intellectual Property* (TRIPS) deals with rules for trade and investment in ideas and creativity. Copyrights, trademarks, patents, geographical names for product identification, undisclosed information and industrial design should, according to this agreement, receive protection around the world. "The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations."<sup>xi</sup> The TRIPS combined and expanded significantly the existing standards of the World Intellectual Property Organization (WIPO) that were set in the Paris Convention for Protection of Industrial Property (1967, patents and industrial design) and the Berne Convention for the Protection of Literary and Artistic Work (1971, copyrights). For proper functioning of this system is important to ensure that member countries implemented and are enforcing the adequate protection standards.

	Goods	Services	Intellectual property	Disputes	Trade policy reviews
<i>Basic principles</i>	GATT	GATS	TRIPS	Dispute settlement	TPRM
<i>Additional details</i>	Other goods agreements and annexes	Services annexes			
<i>Market access commitments</i>	Countries' schedules of commitments	Countries schedules of commitments (and MFN exceptions)			

FIG. 1: THE BASIC STRUCTURE OF THE WTO AGREEMENTS

Source: Trading Into the Future: The World Trade Organization. 2<sup>nd</sup> edition, WTO, Geneva, 1999, page 15.

The new system incorporated also number of special agreements, which became part of the general binding commitments of the WTO. Among these are for example the Agreements on Agriculture, Sanitary and Phytosanitary Measures, Rules of Origin, Subsidies and Safeguards, Textiles and Clothing, Government Procurement, and others.

#### Ministerial Conferences

The countries can make decisions through specialized committees and councils, where all WTO members have their representation, but "...the WTO's top level decision-making body is the Ministerial Conference, which meets at least once every two years."<sup>xii</sup> The Ministerial Conference settles the most important matters of functioning of the WTO, approves the most important agreements, and has the authority to take decisions on all matters under any of the Multilateral Trade Agreements. Every conference brings about significant results that play a great role for the future direction of the WTO and international trade. Four such conferences took place since the WTO began its activity: Singapore, 1996; Geneva, 1998; Seattle, 1999 and Doha, 2001.

There was put a huge stress and expectations towards the so called "Millennium Conference" that took place in Seattle in 1999. However, Seattle failed because Members were too far apart on substantive issues. They

disagreed on agriculture, labor, the environment, on competition policy, on rules, and on how to deal with developing countries' problems with implementing their Uruguay Round commitments.<sup>cxiii</sup> After this mayor setback, the WTO had to evaluate its actions and learn from the situation. It devised a two-year preparation strategy to ensure that the next Ministerial Conference in Doha, Qatar would be a success. During this preparatory process a great stress was put on transparency and a "bottom-up" approach to make sure that the wishes of Members will be reflected. Thus, the responsibility for bringing inputs was placed with the proponent of particular issues. The issues did not change much since the last conference, but the process of consensus-building consultations contributed enormously to the spirit and outcome of the meeting. Close attention was also given to the external environment. In two years the WTO Director-General Mike Moore, who personally drove the process, met with more than 300 ministers, and the dialogue of the Secretariat with NGOs and parliamentarians intensified considerably.

#### **The Fourth Ministerial Conference – Doha, 2001: Launch of a New, Development Trade Round**

Despite all above-mentioned efforts, the outcome of the conference remained in doubt. Representatives of the member countries met from 9 to 13 November 2001 in the capital of Qatar, Doha to negotiate a range of subjects. Neither the public, nor media (at least in Slovakia) put much attention to this meeting, because it was overshadowed by the September 11 terrorist attacks in New York and from that resulting war conflict in Afghanistan. Influence of this act was felt during consultations, too.

The first successful result was the unanimous approval of accession of China, who became the 143-rd WTO member after long fifteen years of negotiations. Yet, much effort and political will had to be made to fulfill the main motive of the Conference – the launch of a new Trade Round. "Due to some controversial topics, to which belong for example intellectual property or trade with agricultural produce, were the negotiations marked by contrary positions of developed and developing member countries."<sup>xiv</sup> The Ministers recognized the urgent need for solidarity in the face of dangerous economic and political uncertainty and at the end of the Conference consensus on the final text of the Doha Development Agenda was achieved. The meeting launched the "Development Trade Round" – the first since the Uruguay Round in 1986, making it a turning point in the history of the WTO and in the negotiations between developed and developing countries.

*The Doha Agenda* places development issues and the interests of the poorer Members at the very heart of WTO's work. It pursues further liberalization of trade in services, as well as adoption of rules for new issues that were until now not included in any agreement. The final result is a three-year work program with number of objectives for all areas that should be closed by January 1, 2005. The negotiations take place in the seven Trade Negotiations Committees (TNC) formed and active especially for this purpose since January 2002. Their progress was reviewed at the Fifth Ministerial Conference in 2003.

Main areas of the working program:<sup>xv</sup>

#### ➤ Agriculture

Members recall the long-term objective to establish a fair and market-oriented trading system through a program of fundamental reform. They committed themselves to enforcing substantial improvements in the market access, reducing all forms of export subsidies, and applying major reductions in trade-distorting domestic support. Special and differential treatment is guaranteed to developing countries during negotiations to support their development needs, including food security and rural development.

#### ➤ Services

The negotiations in this sector should be conducted with a view to promoting the economic growth of all trading partners and the development of developing and least-developed countries. The basics for the ongoing negotiations adopted by the Council for Trade in Services on March 28, 2001 in the Guidelines and Procedures for the Negotiations should be followed as stated. The participants were to submit initial requests for specific sectors, in which the entry of foreign services will be liberalized, by June 30, 2002 and initial offers by March 31, 2003.

#### ➤ Industrial goods

Negotiations on market access for non-agricultural goods should aim to reduce or eliminate tariffs, tariff peaks, escalation, and non-tariff barriers in particular on products of export interest to developing countries. Here too, the special needs and interests of developing and least-developed countries should be taken into account.

➤ Intellectual property rights

The Declaration stressed the importance attached to implementation and interpretation of the TRIPS Agreement in a manner supportive to public health (e.g. access to existing medicines, research and development of the new medicines). Negotiations will continue, according to Article 23 paragraph 4, on the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits before the next Ministerial Conference. Countries also agreed to examine relationships between the TRIPS and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, etc.

➤ Trade and investments

Negotiation on conditions for long-term cross-border investment that would contribute to the expansion of trade should follow during the Fifth Ministerial Conference. Until then a special Working Group focused on the clarification of the sections as: scope and definition, transparency, non-discrimination, development provisions, exceptions and balance-of-payments safeguards, and others. A balance should be found between interests of home and host countries. Parties should take due account of development policies and objectives of governments, their right to regulate trade in the public interest, and also consider the abilities and financial needs of developing and least-developed countries.

➤ Trade and competition policy

The needs of developing and least-developed countries for technical assistance and capacity building in this area should be supported. Therefore, the cooperation with intergovernmental organizations and through regional and bilateral channels was relevant. The Working Group focused on the clarification of the core principles (transparency, non-discrimination, and provisions on hardcore cartels), modalities for voluntary cooperation and support.

➤ Transparency in government procurement

Negotiations will take place after the Fifth Conference and should take into account participant's development priorities, especially those of least-developed countries. The process shall be limited to the transparency aspects, not restricting preferences to domestic suppliers.

➤ Trade and environment

Environment received considerable attention from the WTO, as this topic becomes more and more important for the whole society. Therefore, the goal of the Organization is to strengthen mutual synergic effect between trade and environment. Numerous assignments are planned for the Committee on Trade and Environment to be pursued during next three years to fulfill the Doha Agenda. Negotiations are agreed on the relationship between existing WTO rules and specific trade obligations in multilateral environmental agreements; on the procedures for regular information exchange, the reduction of tariff and non-tariff barriers to environmental goods and services, as well as the reduction of fisheries subsidies that do not benefit the environment. Particular attention should be given to the environmental measures and their effect on trade and also to labeling requirements for environmental purposes in order to identify any need to clarify relevant WTO rules.

➤ Others

The Declaration defines the plan of action for number of other topics. Most of them were introduced for the first time, as "new issues" brought by changing international trade environment. They will surely expand over the time and receive higher attention during the next rounds. The topics include:

- electronic commerce
- small economies
- trade, debt and finance
- trade and transfer of technologies
- technical cooperation and capacity building
- least-developing countries
- special and differential treatment

The good results achieved in Doha give hopes for the future. As the WTO's General Director Mike Moore proudly summarized after the Conference: " There is much to do to ensure that the Fifth Ministerial Conference in Mexico in 2003 is a success, and that the new negotiations are concluded within the three-year timeframe agreed by Ministers in Doha. We have made a good start – we have approved a new budget, chosen the Conference venue, put in place a negotiating structure, and agreed on the chairpersons of the negotiating committees – all within three months of the Doha launch. That process took considerably longer after the launch of the Uruguay Round in 1986."<sup>xvi</sup>

## Contribution of the New Multilateral Trading System

Practice and also numerous economical researches proved the fact that a free and liberalized trade within the country fosters its economic growth and well-being. "It is expected to improve resource allocation in line with social marginal costs and benefits; to facilitate access to more advanced or better-suited technology, inputs, and intermediate goods; to enable a country to achieve economies of scale and scope; to bolster competition in domestic markets; and to provide pro-growth externalities."<sup>xvii</sup> But the same rule applies also in a broader spectrum. Another words, free trade encourages countries to specialize on producing the goods they make the best while importing the rest from other countries. This exchange supports the expansion of production and brings new opportunities for further growth. But important is that the trade among all actors is really free, without distortions of any kind. To work on reaching this stage is a main priority of the WTO.

The trade liberalization started by the GATT more than 50 years ago. By now we could already find out that numerous tariff reductions and continuing elimination of non-tariff barriers had brought significant results. Some of them are:<sup>xviii</sup>

- The growth of the world trade has averaged 6% annually, resulting in 18-fold growth of the total world trade
- The industrial production grew annually by 4.2%, what increased the total volume eight times
- The share of the trade on the world's GDP increased from 7% to 17.4%
- The world's GDP per capita grew annually by 1.9%
- The average world income per capita was in 1998 2.5 times higher then in year 1945

And yet, the process is not finished. In contrary, the Uruguay Round was a turning point that started the general implication of the agreed steps in the international trade liberalization in such a wide dimension, as has never been applied before. While the average trade weighted tariff of the developed countries was approximately 40 per cent at the beginning of the 1950s, after the first seven Trade Rounds it declined to 6.3 per cent to end up at 3.9 per cent agreed during the Uruguay Round (e.g. the USA agreed on 3.4% and the EU on 4.1%). Accurate estimates on the impact of the Uruguay Round are hard to make. Some, based on all above-mentioned measures have calculated that "...the new liberalization will add an extra ECU 180 billion of global income per year by 2005."<sup>xix</sup> "The new rules open up to international tenders a global public procurement market worth ECU 346 billion. The innovation will bring more competitive bidding, greater efficiency and consequent savings in public expenditure. And, it is estimated, the overall level of world merchandise trade will be USD 755 billion higher in 2005 than it would have been without the Uruguay Round's Commitment to opening up markets."<sup>xx</sup>

As every well-known institution or organization, the WTO has both supporters and opponents. I agree that the WTO might not be a perfect vehicle for the trade relationships in multinational area, but it is nowadays the "only doctor in town" and does bring significant benefits. Just based on the simple fact that any increase in the range of trading partners is beneficial to the open economies, the WTO provides a wide spectrum of opportunities to its member countries, no matter if small or large, developing or developed. "All the participating governments recognize the contribution that liberal trading policies can make to the healthy growth and development of their own economies and of the world economy as a whole."<sup>xxi</sup> If trade flows smoothly, the conflicts are less likely to arise. Therefore, the confidence that the WTO Agreements bring to its members is very important.

To summarize: "According to the World Bank, complete liberalization of merchandise trade and elimination of subsidies could add US\$ 1.5 trillion to developing country incomes. And reshaping the world's trading system and reducing barriers to trade in goods could reduce the number of poor in developing countries by 300 million by 2015 and boost global income by as much as \$2.8 trillion over the next decade."<sup>xxii</sup>

### Post-Communist Countries in the Multinational System

The political changes at the end of the twentieth century played an important role in the start of the liberalization processes of the formerly centrally planned economies. Right after the end of the Cold War, the post-communist countries had begun a long lasting journey from a large economic isolation towards the reintegration into a global trading system. "Since the late 1980s, the challenge has been, and continues to be, to manage this reintegration so that all countries benefit from greater specialization and trade of the part of the transition countries, while

minimizing the inevitable adjustment costs.<sup>xxxiii</sup> These countries in transition account for almost one third of the world's population, and even if we exclude China they contain more people than the EU or the NAFTA (Table 2). Therefore, it is an area with a great potential.

TABLE 2: ECONOMIES IN TRANSITION - POPULATION INDICATORS

Country	Population (mil.)
Central and Eastern Europe	192.0
Russia	145.5
Former Soviet Union (excluding Russia)	73.9
China	1282.4
Rest of Asian	192.0
Total	1885.8
EU	370.2
NAFTA	412.9
World	6056.7

Source: United Nations Population Division, 2000. Counted from the indicators for individual countries.

Following in this paper, we will focus mainly on the development of the Central and Eastern European transition economies that used to be members of the Council for Mutual Economic Assistance (CMEA).

The CMEA was a foreign trade organization of the communist countries under the influence of the Soviet Union, where the countries agreed on determined trade flows among the member states “The economies of the CMEA member states were together very closely combined. They realized up to 50 per cent of their foreign trade turnover in a reciprocal good exchange.”<sup>xxxiv</sup> But this mechanism was completely different from customs union or the free trade zone, as we know it today. Communist countries were state regulated, and therefore could not follow a non-discriminatory, open market policy. Most centrally planned economies maintained a number of direct interventions in investment decision-making and regulated their economies by stating quantities of goods that should be produced during five years periods so called ‘five-year plans’. They also used many state subsidies, and no common external tariff or common trade policy within CMEA existed.

#### **Specific Treatment for Transitive Economies**

During the Cold War the political aim was to secure the technical superiority of the West. The economical relations between the GATT and the communist countries were minimized only to the direct relations between individual Western and Eastern countries. “Before accession of a communist country to the GATT Western governments willing to enter into closer trade and cooperation with communist countries on a concessional basis were granting MFN treatment in bilateral trade agreements in exchange for easier access to the market in the communist country or for other, often political aims.”<sup>xxxv</sup> When communist countries started to negotiate the terms of their accession into the GATT, several safeguards were implemented into the agreement. These measures were applied to assure that the western countries could respond quickly if new contractors did not follow the basic principles and their governments determined prices of export in a discriminating and distortive way. Otherwise, it would be almost impossible that two so different economies as the centrally planned and regulated state economy and the neoliberal market economy could be brought at least to a partial agreement. The GATT membership of the socialist states was, therefore, in most of the cases based on specially designed conditions. Numerous safeguards permitted contracting parties an easy application of new restrictions. At the same time, the member countries could use the provisions of the Article XXXV. of the GATT Agreement, which permits contracting party not to enter into GATT obligations with respect to a newly contracting party, and vice versa. This tool was used extensively by the USA. For all above-mentioned reasons, the immediate economic gains for the communist countries were rather modest, and accession was seen more as a sign of a political independence from the USSR. It could be the first step towards a membership in the IMF or the World Bank, important institutions that provided access to financial means.

Being a contracting party to the GATT gave the communist country an opportunity to enter into new trade negotiations with their Western counterparts from an improved basis. However, “...the GATT diverged from a rule-based approach and established precedents of differential treatment of some centrally planned economies in the

1960s and 1970s. These have become embodied in practices, especially with respect to anti-dumping actions, which discriminate against non-market economies and which continue to be applied to economies in transition from central planning.<sup>xxxvi</sup>

#### **Czechoslovakia**

Czechoslovakia (CSR), the same way as Cuba, was one of the founding members of the GATT. “As a country without a direct access to the sea, but with a significant machinery and processing industry, with inadequate resource base and not self-sufficient agriculture, from which resulted its dependence on foreign trade, had Czechoslovakia a positive interest on setting binding rules for international trade and this way assuring its share on the economic benefits that would emerge from this cooperation.”<sup>xxxvii</sup>

It was one of the reasons why the CSR participated very actively in the preparatory conferences and also during the Trade Rounds in Geneva (1947), Annecy (1949), and Torquay (1950-51). But in the early fifties, after it turned into a communist regime, problems arose. The US Congress passed a provision, which stated that the United States would not grant any tariff reductions or the MFN treatment to the socialist states. Based on this, the USA denounced the bilateral trade agreements with countries that were not members of the GATT. The case of the CSR was more complicated, because the relations were based on a multilateral agreement (the GATT). The USA could not use the Article XXXV., since it was applicable only towards newly acceding countries. In 1951 both Czechoslovakia and the United States complained to the GATT that the other country was not meeting its GATT obligations. The obligations were consequently suspended by a Declaration from September 27, 1951 and the USA imposed a maximal tariff on Czechoslovak exports. Otherwise, the CSR was considered to be a “silent contracting party” taking part on following Trade Rounds and applying negotiated tariff reductions and concessions, but having no decisive power.

After the “Velvet Revolution” in 1989, Czechoslovakia started the process of transition and the political system changed as well. It brought about a change in relations between the countries and Czechoslovakia “took back” its old position as a full member. The USA opened its market to Czechoslovakia by granting it a MFN at the end of 1990, but the suspension of its GATT obligations was officially withdrawn only in 1992.

When Czechoslovakia split in January 1, 1993, the Czech and the Slovak Republics became two independent states. They both separately applied to join the GATT and on April 15, 1993 became separate contracting parties.

#### **Other Countries**

**Poland** received an observer status in 1957 and two years later applied for accession. During the Kennedy Round the accession working group discussed the terms of accession, which were very different from a standard protocol, because Poland was a state trading country. Since Poland did not have a meaningful tariff, it obliged itself to increase its imports from contracting parties to the GATT by not less than seven per cent annually. Poland became contracting party on October 18, 1967 as the first state trading country. After the collapse of communist power Poland, the same way as all other post-communist members, presented the request to renegotiate its terms of accession on the basis of a market economy system.

**Romania** was granted an observer status in 1957 and applied for accession in 1968. The accession protocol was similar to Poland’s, but Romania obliged itself to increase imports from contracting parties by not less than the overall growth rate of total imports as in the respective current five-year plan. In 1971 Romania became contracting party, but the USA applied the Article XXXV. There were no relations between the two countries until August 1975, when the United States granted Romania the MFN.

**Hungary** applied for accession in 1969 and became a contracting party four years later. Since it underwent economic reforms, acknowledged by Western world as successful and trustworthy, and its tariffs were considered a meaningful device for regulating trade, no quantitative import obligation was implied. Nevertheless, the USA invoked the Article XXXV. in their case, too, granting the MFN since 1978.

**Bulgaria**’s negotiations were not so successful. It became an observer in 1967 and applied for accession after lengthy preparations in 1986. The prolongation of negotiations was caused by not transparent economic reform moves that was Bulgaria proceeding during second half of the 1980s. Problematic were also its close relations with the USSR which met political resistance. In 1991 the new terms of negotiations were applied in reference to transition of the economy and Bulgaria became contracting party to GATT in 1995 and member of the WTO in

December 1996.

The **Soviet Union** notified the GATT about its interest to become observer during the Uruguay Round in 1986 and got this status in 1992. After the collapse of the USSR and Yugoslavia a series of new states showed interest in becoming GATT contracting parties and later members of the WTO. Working parties were set up and the negotiations are being held continuously.

While the accession of communist countries in the past 30 years was seen by Western countries as a sort of political measure, it is now considered to be a necessary ingredient in the transition process of post-communist countries to the market economy. Almost all post-communist countries in transition from central planning have accepted rather than challenged existing principles of the world trading system embodied in the WTO, and generally pursue multilateral non-discriminatory trade policies. The reality proves that transition is not easy, takes a long time, and the countries need help and support from their Western partners. Integration process into the world economy requires several steps.<sup>xxviii</sup>

- a.) To open up the domestic economy through an orthodox commercial policy
- b.) To obliterate quickly all vestiges of the CMEA's trade, pricing, payment, and settlement regimes
- c.) Integration into the world economy from the beginning envisioned to encompass full participation in global economic regimes

Even though the collapse of communism and change of the system occurred more than a decade ago, countries still work hard on securing a well-functioning liberalized trade.

TABLE 3: WTO STATUS OF THE CENTRAL AND EASTERN EUROPEAN ECONOMIES

Country	Status	Date of accession
Czechoslovakia	Original GATT signatory	Jan. 1948
Slovak Republic	Succeeded CSR	Apr. 1993
Czech Republic	Succeeded CSR	Apr. 1993
Yugoslavia <sup>1</sup>	Joined GATT (state trading econ.)	Aug. 1966
Poland	Joined GATT (state trading econ.)	Oct. 1967
Romania	Joined GATT (state trading econ.)	Nov. 1971
Hungary	Joined GATT	Sept. 1973
Slovenia	Joined WTO	July 1995
Bulgaria	Joined WTO	Dec. 1996
Latvia	Joined WTO	Feb. 1999
Estonia	Joined WTO	Nov. 1999
Albania	Joined WTO	Sept. 2000
Croatia	Joined WTO	Nov. 2000
Lithuania	Joined WTO	May 2001
Moldova	Joined WTO	July 2001
Bosnia & Herzegovina	Negotiating (applied - May 1999)	
Macedonia	Negotiating (applied - Dec. 1994)	
Yugoslavia Fed. Rep. <sup>2</sup>	Negotiating (applied - Jan. 2001)	
Belarus	Negotiating (applied - Oct. 1993)	
Ukraine	Negotiating (applied - Dec. 1993)	
Russian Federation	Negotiating (applied - June 1993)	

<sup>1</sup> Former Yugoslavian Socialist Republic. In 1991 Slovenia, Croatia and Bosnia & Herzegovina declared its independence and new Yugoslavia was not allowed to claim successor status.

<sup>2</sup> The new Yugoslavia (Serbia, Kosovo, Vojvodina, and Montenegro) applied for membership.

Source: WTO list of members;

The Road to Doha and Beyond. WTO, Geneva, 2002, page 65.

### **Slovakia in the WTO**

As we mentioned earlier, Czechoslovakia was one of the GATT's contracting parties since its beginning. When in 1992 the common parliament of Czech and Slovak Federal Republic (CSFR) agreed on its division into two sovereign states: the Czech Republic (CR) and the Slovak Republic (SR) the new states separately applied to join the GATT. The accession started already before their independence by negotiating the exact process. Both CR and SR expressed their will to respect to the fullest extent all the provisions and commitments made by former CSFR as its successive states. For this reason, the accession process was different from the standard. In a common Memorandum the successor states formulated their determination to become contracting parties under the same conditions as were followed in the CSFR. Therefore, no working group was formed (normally used to consult and prepare the accession of a new country), but delegates submitted a proposal of the Protocols about the accession together with the schedule of concessions. The Proposal was submitted and approved on February 9, 1993 by the Council and already ten days later more than two-thirds of members agreed that the CR and the SR could become contracting parties to the GATT. The Minister of Economy signed the Protocol of Accession on March 16, 1993 in Geneva, and this way the Slovak Republic became the full contracting member under the same conditions that were valid for the CSFR. This Act came into the force retroactively from January 1, 1993.<sup>xxix</sup>

Slovakia made extensive commitments during the Uruguay Round both in trade of goods and services, and after the establishment of the WTO became automatically its original member. During the Fifth Conference the countries agreed to continue negotiations on liberalization of some sectors that were not included in the WTO Agreement, but are important and will probably be discussed in the near future. Slovakia participated on these meetings as well, made certain commitments and signed some of the resulting plurilateral agreements, e.g. Agreement on Government Procurement, Information Technology Agreement (ITA), Agreement on Trade In Civil Aircraft. Slovakia also participated in the negotiations on basic telecommunications, financial services, e-trade, and transport services.<sup>xxx</sup>

### **Institutional Cooperation and Performance Appraisal**

The Ministry of Economy is responsible for the representation of the Slovak Republic in the WTO. Our country has representatives in the Permanent Mission to the United Nations and in other international organizations with the seat in Geneva, who take part at work of different committees and working councils, and this way support Slovakian needs. Nevertheless, the Ministry of Economy remains the main governmental body responsible for the formulation, coordination and implementation of trade policies within the framework of domestic and international laws, including the establishment of safeguard measures against imports, and countervailing actions against subsidized exports. It is responsible for the coordination of bilateral and multilateral trade policies and negotiations, including implementation of obligations; it operates the foreign trade licensing regime and administers import quotas, except for tariff quotas, which are administered by the Customs Directorate; it is responsible for industrial policy and dispenses most financial assistance to industry, including state aid, which is monitored by the State Aid Office. The Ministry closely cooperates with other policy departments.

Since its establishment, the Slovak Republic has enacted a large number of trade and trade-related laws and regulations and amended existing ones. Many of these changes have been made due to the need to harmonize the legal framework with the EU's *aquis communautaire*, but also because of the implementation of number of the WTO's key provisions. Today, after almost ten years of the Slovak independence, we may say that our country has finally developed a compact legislative framework applied in the foreign trade. It is comparable with other world open economies and provides greater security of trading environment for our investors, trading partners as well as for our own trade. All of the significant WTO Agreements have now their corresponding Slovak regulation.

The conclusion of the Trade Policy Review of the Slovak Republic from November 2001 reaffirmed our ongoing liberalization as a means of improving economic efficiency and further integration into the world economy. During the period under review (1995-2001) the simple average MFN tariff decreased from 8% to 6.1% in 2001 and the rates were skewed towards duties in a range from 0 to 5 per cent. These rates covered 45 per cent of tariff lines in 2001, what meant a ten per cent increase from year 1995. The share of duty-free items also increased from around 15 percent in 1995 to 19 percent nowadays.

At the same time, Slovakia is granting the Generalized System of Preferences treatment to developing countries. All products imported from least developed countries are granted duty-free access, and the imports from developing countries are classified into three groups:

- a.) Sensitive to domestic production - receive no preferences (56% of tariff lines). This group includes mainly agricultural products, but also certain industrial products, for example mineral products, carpets, wood pulp, footwear, iron, and steel.
- b.) Less sensitive - dutiable at a preferential tariff of 50% of the MFN rate (29% of tariff lines).
- c.) Non-sensitive - enter duty-free (15% of tariff lines).

Currently, GSP applies to 98 developing and 48 least developed countries and these imports are limited annually to US\$2 million per country annually. Developments are also being made toward liberalization of services' sector, mainly in banking, insurance, telecommunication and transport.

## Conclusion

We see that the recent world trend supports membership of the small economies in the bigger international bodies. They should take part in the international trade in order to equalize their resource limitation with the actual demand and thus improve their performance.

Based on this, the external trade that brings greater access to inputs is a vital part also for the Slovak economy. Slovakia's priority is to be a vital part of the international trading system. Therefore, it is a member of the WTO since its independence in 1993. As a member it participates on all actions in order to help the expansion of the liberalized trade. It supports the idea that the new Development Trade Round, launched during the Doha Ministerial Conference, should be based on agreed principles and take into consideration the needs that arose from the changes in economy. Only through development and mutual cooperation can countries reach the WTO's principal aim – to guarantee the sustainable economic development and welfare for peoples of all member countries.

Our membership in the WTO brings certain rights, but responsibilities, too. Slovakia has to comply with all agreements it signed under both the GATT and the WTO, and apply them in relations with its trade partners. On the other hand, membership does not only bind Slovakia to follow the rules, but gives our country numerous possibilities. Since Slovakia is quite a small country, the opening of the markets gives us a chance to widen the area of the export possibilities and thus to promote economic growth and development. The WTO grants Slovakia the same treatment and chances as to the big economies. It is only up to us to use the chances given.

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# The Dynamism of East Asian Economic Integration

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## Abstract

The East Asian economic integration started in 1990 due to increase regionalism in Europe and North America and the difficulties of concluding the Uruguay Round of trade negotiation. The 1997 Asian financial crisis is an eye opener for East Asia to integrate their economies. The conceptual leap on East Asian economic integration occurred in 2001 when the East Asian Vision Group submitted a report on an East Asian Community to the leaders of the ASEAN+3 meeting. The purpose of this paper is to explain the factors that influence the economic integration in East Asia. Integration act as a platform for East Asia to discuss on economic issues and play a much-needed role to balance the power of North America and Europe. It also strengthened the region integration into the world economy. The factors that accelerate the economic integration in East Asia include economy, security, political, leadership, the Asian financial crisis, historical, socio-cultural, regional identity and knowledge management. The economic integration in East Asia can be measured by the intensity of intra-regional trade and economic interdependence. The region is believed to be a role model of market-driven economic integration.

## Introduction

Asia Pacific Economic Cooperation (APEC)<sup>i</sup> was launched in the late 1980s as part of the Asian and American response to the success of European regionalism.<sup>ii</sup> Soon after, in December 1990, after the breakdown of the Brussels negotiations in the Uruguay Round, the then-Prime Minister of Malaysia, Dr. Mahathir Mohamad suggested the formation of what he called the 'East Asian Economic Group' (EAEG).<sup>iii</sup> The EAEG proposal aimed to counter the threat posed by the emergence of trade blocs in the EU and North America and to provide a stronger voice for Asia in global trade negotiations. In late 1991, at the ASEAN (Association of Southeast Asian nations) Economic Ministers' Meeting held in Kuala Lumpur, Indonesia put forward the proposal to replace EAEG with EAEC or 'East Asian Economic Caucus' and was immediately accepted by Malaysia and the rest of ASEAN.<sup>iv</sup>

The EAEC was initially rejected due to opposition both from within East Asia and externally. It met with strong opposition by the non-Asian APEC members, particularly the United States (US) and many participants of the 1991 2<sup>nd</sup> APEC meeting in Seoul. The US Secretary of State, James Baker, demanded that the Japanese and South Korean foreign ministers not to support EAEC.<sup>v</sup> At that time, Japan agreed to oppose such a notion and Japan seems not to take part in any kind of proposal, of which America was against it. Under the pressure from the US and for lack of support from some Asian nations such as Japan, and with rapid success of APEC, the EAEC faded away. Japan failed to utilize this golden opportunity to lead the economic integration in the East Asian region despite the fact that it was the sole economic superpower in Asia.

Owing to the commitment of APEC to protect the interest of Asia Pacific and after the EAEC setback, ASEAN started an economic integration initiative with the establishment of ASEAN Free Trade Area (AFTA) in 1992. ASEAN desire to be a viable organization towards economic integration was satisfied by accelerating the schedule of AFTA, creating forums centering on ASEAN activities such as ASEAN Regional Forum (ARF) in 1994, ASEAN-Europe Meeting (ASEM) in 1996, and expanding dialogues with various countries in the "ASEAN Plus (+)" format. The launching of ASEM, in particular, was the European answer to the rapid progress of APEC. This enhanced sense of urgency enabled ASEAN members to agree on the first framework of comprehensive regional economic integration in East Asia.

Cooperation involving ASEAN and its North Asian partners (Japan, South Korea and China) gained momentum as a result of the necessity for consensus during the initial Asia-Europe Meeting (ASEM) in 1996. The East Asian countries, while participating in the ASEM process, came to realize the need for their own grouping to

deal with the European counterparts. While, the European countries had the European Union, the East Asian countries didn't have anything of their own, and so there was urgent need to have an identity. The *de facto* grouping that emerged was further forged by regional initiatives to combat the Asian financial crisis at the 1997 Kuala Lumpur ASEAN Summit. The financial "contagion" convinced ASEAN and Northeast Asian countries that they need a regional forum for economic cooperation that reflected their common interests, priorities and increased their voice in the global arena.

In 1997, under Dr. Mahathir's chairmanship, China, Japan and South Korea were invited to the ASEAN Summit in Kuala Lumpur. It was the time when the ASEAN and Northeast Asian countries leaders started to realize the importance of a stronger East Asian grouping. They began to have an East Asian caucus within the ASEAN meetings and the first of the annual ASEAN Plus Three (APT or ASEAN + 3) summit meetings was held following the ASEAN Summit in Kuala Lumpur aimed at greater regional economic coordination. Prior to the 1997 financial crisis, it was hard to imagine the formation of a group such as the APT.<sup>vi</sup> But the 1997 Asian currency crisis changed the tide. And today, people speak about the possible formation of an East Asian Community and the governments explore possibility of a pan-East Asia FTA (Munakata, 2002).

In 1999 the APT leaders commissioned an East Asian Vision Group to study the possibility of formalizing an East Asian grouping. The conceptual leap on East Asian economic integration occurred in November 2001 when the East Asian Vision Group submitted a report on an East Asian Community to the leaders of the APT meeting. The leaders of ASEAN, Japan, China and South Korea formally acknowledged an East Asian FTA vision. They have agreed that economic ministers should begin study on an East Asian FTA. Meanwhile, the whole process of regionalism in East Asia has been somewhat '*ASEANized*' in its norms. The current situation can be characterized as "talking regional, acting bilateral" (Munakata, 2002). Meanwhile, regionalism in Europe and North America maintained momentum and continued to expand geographically and functionally. East Asian economies are convinced there is no way to stop it and they should also get involved in trading block or preferential trade agreements.

Up until around 1997, China kept to the sidelines in moves toward regional cooperation. For instance, China belatedly joined the APEC forum in 1991, two years after the regional framework was created, and it opposed to an idea to create an "Asian Monetary Fund." From around the summer of 1999 when tensions grew in its relations with the U.S., China began to step up efforts to strengthen ties with neighboring countries as part of its "multipolarity" strategy. While being engaged in negotiations for its accession to the World Trade Organization (WTO), China watched the acceleration of moves toward bilateral FTAs within Asia from 1998 onward, feeling frustrated and strongly recognizing the need to join the trend. It has also come to see an FTA, which provides a special access to the Chinese market, as an effective tool to defuse persistent fears among its neighbors over a "China threat." When Sino-US relations were particularly tense and in the wake of the US bombing of the Chinese embassy in Belgrade in May 1999, China has embarked on '*ASEANized*'. At the ASEAN-China Summit in November 2000, China proposed an ASEAN-China Expert Group on Economic Cooperation to recommend measures on how to further enhance ASEAN-China economic cooperation and integration, including the possibility of establishing a free trade area. This move was the precursor to China's active efforts to seek an FTA with ASEAN and its leadership role in East Asian framework for economic integration. In November 2001 China and ASEAN agreed to negotiate for an FTA to be completed within 10 years. China's offer of early harvest by reducing tariffs of interest to new ASEAN members had a decisive role in persuading ASEAN to accept China's FTA proposal.

Japan and has been criticized for lagging behind China in the "FTA race" over ASEAN economies. Following China's step, in January 2002, Japan proposed an Initiative for Japan-ASEAN Comprehensive Economic (JACEP). According to a joint declaration by Japanese Prime Minister Junichiro Koizumi and ASEAN leaders, Japan and ASEAN aim to complete the implementation of partnership measures (including an FTA) as soon as possible within 10 years. South Korea was also considering an FTA with ASEAN.

In November 2002, a series of meetings among East Asian leaders—the 8th summit of the Association of Southeast Asian Nations (ASEAN), the 6th APT summit among leaders of ASEAN countries, Japan, China and South Korea, ASEAN+1 summit meetings between ASEAN and Japan, China and South Korea respectively, and Japan-China-South Korea summit—took place in Phnom Penh, Cambodia, and there were some developments in moves toward the integration of East Asian economies. Hence, at this stage, all East Asian economies are engaging

in various bilateral free trade efforts. President Roh Moo-hyun summed the inevitable East Asian economic integration when he told the ASEAN business leaders (October, 2003) at the Bali Summit, "If we join forces, South Korea and ASEAN members and by extension, all of East Asia, will become the engine of growth for the world economy and the 21<sup>st</sup> century will be the age of East Asia". According to Chinese Premier Wen Jiabao (2003), the world could see a free trade area with nearly two billion people and gross domestic product of almost US\$3 trillion in East Asia by 2010.

In October 2003, ASEAN and China agreed on a special tariff-busting program to start their grand plan to set up the world's largest FTA. ASEAN and China adopted a protocol paving the way for the implementation from January 1, 2004 of a so-called "early harvest program" under the FTA (AFP, 2003). The three-year program is largely a concession by China to give early benefits to the ASEAN states through tariff reductions on a host of agricultural and manufactured goods while the actual implementation of the FTA begins on January 1, 2005. The early harvest program allows ASEAN products to be exported to China at a very concessionary rate so that ASEAN countries can actually get benefits of a free trade arrangement even before the agreement is finalized. The ASEAN states reciprocated by giving tariff concessions to their giant neighbor under a so-called tariff harmonized system for agricultural products.

## **The Dynamism of East Asian Economic Integration**

East Asian cooperation had become more urgent after the 1997 Asian financial turmoil, regional crises such as the SARS and bird flu epidemics, and the terrorism threat. After the 1997/1998 financial economic crises, there has been growing concern and recognition by the East Asian leaders that a major regional crisis cannot be handled by any individual state alone, hence the gradual emergence of East Asian cooperation or regionalism, such as the ASEAN Ten Plus One, ASEAN Ten Plus Three (APT), ASEAN Ten plus Five.<sup>vii</sup>

APT process has started to take shape. Government leaders, ministers, and senior officials from the 10 members of the ASEAN<sup>viii</sup> and the three Northeast Asian states—China, Japan, and South Korea—that together comprise the participants in the process are consulting on an increasing range of issues. The APT's emergence raises questions about relations between it and other regional groupings such as the Asia-Pacific Economic Cooperation (APEC) forum and ASEAN itself, as well as about the overall prospects for its future development. There are a number of obstacles to this development that arise from the many differences among the countries of East Asia.

Subsequent meetings of the APT heads of government took place at each of the following annual ASEAN summits. In addition APT finance ministers, economic ministers, and deputies from senior ministries also began meeting regularly. More recently, meetings have taken place among such groups as the APT Young Leaders, the APT labor ministers, the e-APT Working Group, APT patent office chiefs, and members of the ASEAN committee on science and technology and their Northeast Asian counterparts. The ASEAN Summit in Vientiane, Laos, marked the 10th Leaders' Summit for what is an increasingly significant regional dialogue process.

When the AFTA idea was first proposed, many Asian leaders saw the creation of an East Asian currency as one of the ultimate objectives of regional integration. The idea was given further impetus by the Asian financial crisis in 1997-98 and, more recently, the launch of the 'euro'. The first achievement of APT was as quick as "quick response" to the financial crisis. Immediately after the Asian crisis, Japan suggested that an Asian Monetary Fund (AMF) be created, and take on the role of the IMF in boosting regional recovery. But the idea was quickly dropped because of strong opposition from the IMF and the US, as well as lukewarm support from China, which felt that it was too reminiscent of Japan's infamous Greater East Asian Co-Prosperty Sphere program, launched during World War II.

The network of currency swap arrangements between the 10 ASEAN countries and China, Japan and South Korea established in Chiang Mai in 1999, set the stage for Pan-East Asian financial cooperation. Chiang Mai Initiative (CMI) that consists of a series of bilateral currency swap agreements build on the expanded intra-ASEAN US\$1 billion standby swap arrangement. During 2001 Japan reached bilateral currency swap agreements with Malaysia, South Korea, and Thailand. In addition, South Korea has conducted negotiations on bilateral swap

agreements separately with China and Thailand. The spirit of Chiang Mai should live on; a common East Asian currency should be an active goal of our region.

Given the enormous political and economic problems involved in the creation of a free-trade area, a common currency—which represents a much deeper form of regional integration—would take much longer to materialize. At present, East Asia has neither the political institutions, such as those of the EU, nor a central bank to decide on common monetary policies. An Asian currency, therefore, is at best a long-term objective.

Economic reason is one of the nine factors that accelerate the economic integration in East Asia. The East Asian economies growing concern about regionalism gaining momentum in Europe and North America after the Cold War hasten the need for economic integration in the region. East Asia requires an effective mechanism for cooperation and to promote sustainable economic development. The development of regional cooperation with both economic and security aspects has substantially enriched the development of East Asian regionalism (Liu, 2003). The desire for regional security cooperation helps to deepen the process of regional cooperation in East Asia. The efficient and effective management of regional order in East Asia would contribute to the economic integration of the region.

According to Drake-Brockman and Drysdale (2002), the motive for regional economic cooperation is often political as well as economic. East Asian economies are searching for means of closer cooperation on political motives. In the broad APT framework for cooperation among ASEAN, Japan, China and South Korea, the choice of partners for closer cooperation is driven by political motives. Extraordinary leadership is the quintessential to the success of the East Asian integration. The question of right leadership is critical for the success of East Asian economic integration. China has the potential to be the leader of East Asian countries due to its physical size, population, and economic power. The Japanese attempted to unite Asia by creating the Greater East Asia Co-prosperity Sphere but has not been able to repudiate their past. As the bitterness over the Japanese occupation fades with time and the passing away of those who suffered under the Japanese occupation, East Asian nations are level headed enough not to allow the historical legacy to affect economic relations with Japan.

The Asian financial crisis in 1997 has brought about a serious commitment of regional governments to push forward for East Asian economic integration. It also made the East Asian countries to realize how interconnected they were for what started off as a mere currency crisis in Thailand spread very quickly to Indonesia, Malaysia and South Korea. Thus the momentum developed for a regional approach which would be more sensitive to East Asian condition and which could pool together East Asian financial resources that would help the affected countries. Some analyst said that there is very little cultural unity in East Asia that binds the countries in East Asia. There is no common religion that binds them and there are many countries with majority of the populations profess Islam, Christianity, Buddhism and Confucianism as their religion. Regionalism must be built on some common shared values and create a cohesive awareness in the East Asian region. The East Asian regional consciousness will further stimulate regional coherence and send an image of a unifying East Asian region to the rest of the world. The vision of East Asia should incorporate the concerted efforts to build a knowledge-based East Asian economies and information-rich East Asian societies that can compete with the best region in the world. In fact information and knowledge sharing helps to accelerate the economic integration in East Asia.

## **Measurement of East Asian Economic Integration**

The economic integration in East Asia can be measured by the intensity of intra-regional trade, economic interdependence and complementarities of East Asian economies. Intra-regional trade intensity can be defined as the share of trade flows within the same region. According to International Monetary Fund (IMF), Direction of Trade Statistics 2000, the total trade flows appears particularly high within the East Asia group of countries. At least 40% of the total exports from 6 out of these 9 countries are directed to countries within the region. The intra-regional export share for the East Asian region reached 41.5% in 2000 and this figure is lower than the 47.5% reached in 1996, the year before the 1997 Asian financial crisis. Europe and North America, which have major regional trading agreement already in operation, show corresponding figures of close to 63% for EU and 46.7% for NAFTA.

Rao (1995) identified that the intra-regional trade intensity in Asia increased from 32.0% in 1980 to 43.7%

in 1993. This relatively high intra-regional concentration of trade flows within East Asia implies strong interdependence among the economies of the East Asia group (Park, 2002). This economic interdependence in East Asia can be measured by the share of intra-regional exports and/or imports in the Gross Domestic Product (GDP) of each country and in the aggregate GDP of the group as a whole. Intra-regional export dependency shows how much of one country's GDP is generated by its export activities (Park, 2002). The intra-regional export dependency is remarkably high for Singapore (73.2%) and Malaysia (54.1%) and relatively low for Japan (3.3%), South Korea (13.8%) and China (11.4%). The remaining of Southeast Asian countries and Hong Kong show the contribution to the generation of GDP of intra-regional trade, which range from between 20.9-23.8%. The intra-East Asia trade relations are substantially important especially for the ASEAN 5 countries in generating their GDP. Hence, when pursuing regional integration, ASEAN has to consider seriously the inclusion of Northeast Asian countries if it wants to maximize the integration-related benefits. Data from IMF (1997), World Bank (2001) and World Development Report (2001) shows that the economic interdependence of East Asia in 2000 as a whole (minus Japan) stands at a relatively high level of 15.7%, compared to 14.9% for EU and 10.6% for NAFTA. This intra-regional export dependency indicator is lower for the whole East Asia group at 9.1% because Japan is significantly less dependent on trade with East Asian countries and more dependent on trade relations with non-East Asian countries.

The East Asian region was long believed to be a role model of market-driven economic integration. This view is supported by Soesastro Hadi (1993) when he mentioned that the growing economic integration in the region is largely market driven and is in some way closely related to the region's high economic growth performance. Due to a lack of cooperative experience at the regional level, the development of regionalism in East Asia has not been directed by political will but is largely driven by the natural course of economic forces. It is therefore obvious that this form of regionalism is characterized by market dynamism. This is in stark contrast to the institutionalized or policy-induced regional economic integration of the EU and NAFTA. The economic integration in the East Asian region should be modeled on the principle of equality, mutual benefit, free but fair trade. Besides, it must be integrated, comprehensive and encompassing all sectors. It would be a living example to the whole world of how East Asian countries despite its diversity unselfishly help to enrich or develop each other economies through cooperation and integration.

Historically, the Asian countries have not had a strong sense of an "Asian identity", unlike their European counterparts. But economic developments over the past decade, especially in the wake of the 1997-1998 Asian financial crisis, have altered peoples' attitudes significantly, and a new regionalism is now emerging. A number of forces have contributed to this process.

First, intra-regional trade, led by foreign direct investment, has developed rapidly in recent decades. Large companies and transnational corporations have established horizontal and vertical production linkages among the neighboring Asian countries, in order to exploit scale economies and to enhance their value chain.

These in turn, has resulted in enhanced production networks across the region and increasingly close economic ties, providing a strong impetus for Asian governments to seek closer economic collaboration. The economic success of other regional trading blocs, such as the EU and NAFTA, has convinced the East Asian governments that they could achieve similar results emulating such organizations.

Second, Asian countries were greatly dismayed by the solutions prescribed by the IMF and western governments for tackling the Asian crisis of 1997-98. To a certain extent, some countries are still suffering the side effects. Unable to change the existing international frameworks, many Asian countries realized that in order to avoid future economic crises and reduce their reliance on external support, they should co-operate more closely.

Third, new WTO negotiations—albeit unsuccessful so far—have added a new a sense of urgency to the calls for greater regional collaboration. Some developing Asian countries are also increasingly concerned that labor and environmental proposals made by some rich members will undermine their competitiveness. The growing demand for East Asian countries speak with "one voice" has been given added impetus by the specter of a more unified EU and a strong NAFTA together deciding the future agenda for international trade.

Fourth, China's WTO accession has added further impetus to regional co-operation. In addition to increasing access to each other's markets and encouraging mutual investment, many Asian governments also believe

that closer economic ties will help them to reap the benefits of China's membership, thereby reducing their dependence on US markets.

What's more, China's integration into the region will not only contribute to greater economic stability for all of Southeast Asia, but it may go some way towards allaying fears that China's economic growth might be achieved at the expense of its neighbors.

## **From APT to East Asia Community**

A significant step forward was an official proclamation of the East Asian Community as a goal to be pursued in the declaration that followed the summit meeting of Japan and the 10 ASEAN members held in Tokyo in December 2003. It marked the first time that all of the ASEAN leaders met outside the region. The declaration put the Community's creation on an official agenda for the region.

It is still fresh in memory that then Malaysian Prime Minister Mahathir's proposal for an EAEG in the early 1990s was stalled by the strong objection from the U.S. and Japan's reluctance to go for it for fear of offending Americans. Again, in 1998, in the midst of the Asian financial crisis that dealt a crippling blow to the region's economic growth, Japan's initiative for a regional financial mechanism, something to be called an Asian Monetary Fund (AMF), intended to rescue Asian economies affected and prevent a repeat of the crisis, collapsed due to the IMF's (actually Washington's) opposition. But the re-emergence of EAEG in APT form has been taking place now.

At the meeting in early July 2004 of foreign ministers of the APT in Jakarta, Malaysia indicated its willingness to host the first East Asian summit meeting in 2005 or even earlier. The recent November 2004 ASEAN Summit in Vientiane, Laos, decided to hold the inaugural East Asia Summit (EAS) in Kuala Lumpur December 2005. The summit will mark the first milestone in the "irreversible" journey towards an integrated region and send a powerful signal to the world of their deep level of trust and cooperation. It will mark the first major step toward the East Asian Community. But the important thing is for the countries concerned to try to give substance to the [concept--with](#) a clear-cut view of common interests to be pursued in the face of the differences that exist in the region. It is the realization of a 1990 proposal by Mahathir for an East Asian Economic Caucus more than 10 years ago, which failed to take off due to opposition from the United States that feared it would undermine the 21-member Asia-Pacific Economic Cooperation forum.

## **Conclusion**

With their rapid economic development, the East Asian countries strengthened their integration into the world economy. Economic integration in East Asia would enable the region to maintain a united view and have bigger clout in international decision-making. The APT can play a much-needed role to balance the power of North America and Europe. With its market power of 1.98 billion people (2004), East Asia would be able to bargain on equal terms and not accept rules set by others. This will allow East Asian countries to protect themselves from foreign interference. The APT would act as a platform to enable all the countries in East Asia to talk, discuss and act on economic or trade issues as one united voice. The economic integration in the East Asian region would be a living example to the world how East Asian countries despite of its diversity unselfishly help to enrich or develop each other economies through cooperation and integration. This has significant implication to the economies of East Asia, the EU, NAFTA and global trade.

Overall, the APT has considerable promise. Its immediate competitors, APEC and ASEAN, are in danger of stagnating and do not represent the interests of East Asia directly. In contrast, the APT is moving forward on a number of issues, the most important of which is the web of currency swap agreements. The round of trade talks under the WTO agreed to in late 2001 will also give the APT a further boost as East Asian states seek to maximize their influence on the outcome. And the long-term 'regionalization' trends identified in this analysis will continue to help knit the region together. All these factors bode well for the emergence of the APT as a major regional and international player.

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# Changes to Government Export Promotion – Response to Global Challenges in the Developed World

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## Abstract

Governments in the industrialised world have changed their role in export promotion over the past two decades. Considering the growing dominance of free-trade principles as well as the WTO's limitations on government's trade policies, one might expect government forces to gradually withdraw from trade promotion. However, in most industrialised countries, there has been a definite increase in government involvement in export promotion, evident in the cases of Austria, Germany, Sweden, the United Kingdom, the Netherlands and Italy. This phenomenon has taken place irrespective of the countries' export performance, domestic institutional or political arrangements. The argument put forward in the paper is therefore that the challenges of globalisation have led governments in industrialised countries to become more interventionist in export promotion.

## Introduction – Conceptualising the Export Promotion System

There is no generally recognised definition for export promotion [26]. One of the reasons for this is that export promotion can be interpreted on different levels – most notably on the national, industry and firm levels. Accordingly, in its broadest sense, export promotion covers measures which “actually or potentially enhance exporting activity at the company, industry or national level” [59]. For the purpose of this paper, export promotion is interpreted from a strictly micro or firm perspective, thus limited to assistance provided for companies to enhance their exporting activities.

Export promotion on the firm-level usually has an institutionalised form, that is, companies receive assistance from an established organisation or agency. There are three major types of organisations differentiated, depending on the type of export promotion assistance they specialise in: those providing financial services, including export credits and guarantees for exporters (e.g. export-import banks); insurance for exports (e.g. insurance firms with export insurance services); and all other, i.e. general assistance or ‘real’ services [19] for exporters.

This paper focuses only on organisations of the third type, which are referred to as trade promotion organisations or export promotion organisations (EPOs). EPOs in this study are defined to only include organisations with overall responsibility regarding exporters of *any* products. Hence, organisations set up for a specific group of exporters (e.g. food export councils, meat boards, tourism agencies, etc.) are not considered here as EPOs. At the same time, EPOs as organisations with major export promotion responsibilities, often have a broader scope than ‘just’ export promotion, providing for instance general business development services, or undertaking investment promotion beyond their export promotion activities.

EPOs' general export promotion services span from standardised reports and seminars, to customised research and sales leads databases, and through to in-market experience gained from participation in international trade fairs and visits to foreign markets [7]. Typical EPO activities, adapted from [41] are summarised in Table 1.

TABLE 1: EPOs' ACTIVITIES – TYPES OF EP SERVICES

<b>Product and market promotion and development</b>	Export supply studies Identification of export constraints Preparation of product profiles Preparation of market profiles Analysis of opportunities in foreign markets Complete market studies	Purchase of foreign samples Identification of export potential for development Export promotion programmes on a product basis Trade information service Selective dissemination of information
<b>Specialised support services to exporters</b>	Export procedures and documentation Transportation (information and negotiation) Guidance on export financing Marketing Costing and pricing Quality control	Product adaptation Export packaging Publicity Legal matters/ settlements of disputes Direct training Export of services
<b>Activities abroad</b>	Participation in trade fairs Organisation of sales missions	Invitation to foreign buyers Subcontracting of production facilities
<b>Support activities to other entities</b>	Training programmes of specialised schools Pre-shipment financing Export credit insurance Free zones: promotion or administration Motivational campaigns Promotion of tourism Economic studies/ advisory service to the government	Support to small and medium sized enterprises Promotion of joint export mechanisms Quality control and standardisation programmes Export packaging improvement Import rationalisation programmes Preparation of investment profiles Financing of new investment

For the purpose of this paper, export promotion is defined as export-related assistance excluding direct export credit or guarantee and export insurance provided by an EPO and targeted at any firm in the country.

Naturally, there is usually more than one EPO in a country. Besides organisations with national competence, regional or local bodies and small export consultancy firms also provide export promotion services in an institutionalised form. On a broader level, the framework of the International Trade Centre (ITC), co-governed by the United Nations Conference on Trade and Development (UNCTAD) and the General Agreement on Tariffs and Trade (GATT), provides perhaps the most significant international forum for EPOs. UNCTAD and GATT established the ITC in 1983, to create an organisation that undertakes systematic research on EPOs in both developed and developing countries [41]. Importantly, the ITC also represents a forum for national EPOs' cooperation. Other major organisations providing forum for EPOs' collaboration are the European Trade Promotion Organisation's Working Group on Information Processing and the Working Group on Trade Promotion organised by the Asia-Pacific Economic Cooperation. Nevertheless, both of these organisations have a regional scope, as opposed to the ITC's more global reach (including all WTO member countries).

It should be noted that the ITC and other international EPO associations include only the 'leading' EPO of each country. In view of this, they have clearly identified which EPO in a particular country is considered as the actual leading or official EPO. Accordingly, in all national export promotion systems, there is always *one* EPO with a (mostly) clear leading role, stipulated by the ITC and/or other international EPO associations, and most probably acknowledged within the country's export forces as well. This leading or official EPO is usually an organisation with export promotion competence throughout the entire country, having not only home-based, but also foreign operations as well.

EPOs, including the country's leading EPO, can be either government or private organisations. Private forces are able to organise and manage EPOs without significant government involvement. Therefore, the government does not have to directly participate in export promotion provision. Nonetheless, there is a variable extent of government involvement in all countries' national export promotion arrangements. That is to say, even when a country's leading EPO and other significant EPOs are private organisations, the government usually plays a deliberate export promotion role. This government role may range from creating and maintaining the general frameworks for private EPOs' operations, to establishing a deliberate EP policy, but without direct involvement in EPOs' operations, through to direct participation in EPOs' activities.

This paper thus postulates that any particular country's overall export promotion arrangements comprise, firstly, some sort of government involvement in export promotion; second, a leading EPO, which is organised by

either government or private forces; and third, further EPOs, which are also either government or private bodies. All forces participating in export promotion constitute the country's overall *export promotion system*.

## **Background – Gap in the Literature and Objective of the Paper**

Export promotion (EP), even in the fairly narrow interpretation presented above, has attracted a great deal of research attention since the late 1970s. EP research has predominantly involved 'snapshot' studies, that is, EP is investigated at a single point of time; rather than a longitudinal research, where EP and its changes are analysed over time. Both 'snapshot' and longitudinal EP analyses can be grouped into studies that analyse EP (1) from the firm's perspective (micro-level EP research); (2) from the EPO's perspective (mezzo-level EP research); (3) from the national, mostly government point of view (EP research on the macro-level); and (4) studies on the EP system, where it is interpreted in line with this paper's conceptualisation (systemic EP research). Certainly, there are no clear dividing lines between these groups, since most studies have been written considering several levels of EP.

First 'snapshot' studies will be briefly reviewed then studies with more dynamic, longitudinal focus. On the micro-level, research on EP from individual companies' perspective has attempted to answer questions such as *why* EP is needed and *how* it works for firms. In terms of why EP is needed, the numerous positive effects of exporting on companies' overall business performance have been well-researched (see for instance in [46], [16], [79], [4]). Furthermore, the literature on export barriers explains why many companies, despite the attractiveness of exporting, hesitate to start exporting; and also why those already engaged in exporting face serious problems in their future progression along the internationalisation path [10] (also see [49], [10], [64], [79], [21], [46], [5], to name a few). Some studies have addressed specific export barriers in detail, such as the lack of export information ([49], [32], [45], [1], etc.), while also explaining why small and medium sized firms are most exposed to the informational barrier (e.g. [64], [16], [45], [3], [58]).

Another body of literature has placed emphasis on how EP assistance changes companies' export behaviour (see extensive reviews e.g. in [49] and [71]). For instance, studies of this nature have revealed how the different stages of companies' internationalisation ([70], [1], [31], etc.) causes firms to require different EP services over their lifecycle. In addition, other researchers have analysed how EP as a means for companies to build their export networks improves their export performance ([50] or [78], for instance).

In mezzo-level EP research, i.e. when one considers EP through the lenses of the actual EPOs, an interesting aspect that has been widely researched is the scope of EP that EPOs provide (see in [1], [33], [25], [51], [15], [65], [36], to mention a few). Amongst studies dealing with EPOs' actual services, some only focus on one particular EP service, e.g. trade missions (e.g. [60], [61], [69]); others compare different EP services ([79], [36], [44], etc.). Further ways to analyse EPOs' activities is to investigate how they target their EP (for instance in [13], [70], [51]), or how effectively they work (e.g. [47], [70], [15], [31], [53]). Of these, the dimension with the most ambiguity is the effectiveness of EPOs. In other words, there has been a high level of uncertainty and disagreement as to how effective EPOs and their actual EP services are in enhancing companies' exports [63].

Looking at EP from the nation's or government's point of view (on the macro-level), exports' overall benefits for the country (for instance by [2], [4], [16], [17], [50]), as well as the role and objectives of government EP have been commonly examined (e.g. in [18], [25], [1]). A number of studies have focussed on the government's strategy of EP, drawing attention to the fact that 'blind transplantations' of EP strategies across cultures and nations may be undesirable, as an export promotion strategy needs to take into consideration the cultural, legal, and political environment, as well as the stage of economic development [62] (and also see in [43], [9], [12], [14]).

Systemic EP research, unlike research on micro, mezzo and macro-level EP has not been such a widespread area within the 'snapshot' EP research. That is to say, the composition of countries' EP forces, including the relations between the government, the leading EPO and further EPOs has been explored by only a few academics. Research of this nature has been undertaken either by focussing on one particular country (e.g. [20], [39], [66], [6]), or by contrasting several countries' EP systems (e.g. [27; 64]).

Compared to the above literature with 'snapshot' focus, EP changes over time – or longitudinal aspects of EP – has attracted significantly less research attention. For instance, on the micro-level, studies addressing

information barriers from a company perspective tend to emphasise the fact that global changes have caused an increased complexity of information, which has created or aggravated difficulties for companies to compete internationally. The dynamics of firms' potentially deteriorated export performance (due to the growing information barriers) have not been investigated in detail.

Another example of the lack of dynamic studies is in the field of EPO-focussed research (mezzo-level). It has been argued that a significant improvement in EPOs' services has taken place since the 1980s ([13], [27], [21]), including that the availability and diversity of EPOs' services have grown markedly [62]. Nevertheless the milestones of these improvement processes have not been analysed.

Some researchers who have analysed EP on a national or macro-level, focussing on EP provided by the government, have proclaimed the existence of an 'increasing drive' [21] or 'strengthening commitments' [32] for governments for EP, as a consequence of the 'changing landscape' [48] and 'new thinking' [17] in trade policy. Neither the actual steps, nor the evidence for these phenomena have as yet been sufficiently explored.

It should be noted that some macro-level EP research has revealed how regulations imposed by the General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organisation (WTO) has limited the governments' room to manoeuvre in EP over the past two decades or so ([37], [17]). The overall conclusion of these studies is nevertheless those governments' EP capabilities, besides some specific areas such as export subsidies, have not been by and large reduced by GATT/WTO protocols.

Overall, the topic of countries' EP systems have not been a well-researched topic in its 'snapshot' form, nonetheless, it has been even more neglected from a longitudinal perspective. This current paper attempts to fill this gap in the literature while investigating how EP systems of selected industrialised countries have changed over the past two decades, with special emphasis placed on the government's changing role in the respective EP systems.

The objective of the paper is to demonstrate that governments have become more involved in EP in general, and more influential within the overall EP system in particular. Hence, there has been a shift toward government EP in countries' EP system. The paper also seeks to find the answer to the question as to why these processes have occurred in the countries investigated in this study.

## **Methodology – The Structure of the Paper**

This paper takes a case study approach, focussing on some of the most developed countries' EP arrangements and their changes since the 1980s. Seringhaus and Rosson [62] have conceptualised industrialised countries into three clusters: country-groups where export promotion is (1) provided predominantly by private forces; (2) provided by both the government and the private sector; and (3) mainly provided by the government. This paper does not focus on the third group (where governments traditionally have had the leading role in export promotion). Rather it analyses the same country examples as Seringhaus and Rosson gave for the first and second groups – namely Austria and Germany in the first, and Sweden, the United Kingdom, the Netherlands and Italy in the second group [62].

It is demonstrated through the case studies that Seringhaus and Rosson's descriptions of the respective countries' overall EP system prevails, however there has been a definite move toward the government's more influential EP role and intervention into the EP system in all of these countries since the 1980s.

The final section of the paper draws conclusions from the phenomena revealed in the case study analysis. This section also describes general economic and export performance of the case study countries, as well as their institutions and some national political and cultural characteristics.

## **Case Studies**

### **Austria**

The Austrian EP system has been described as one that "operates in the private sector" [64], exhibiting a "broad and integrated private sector-led export promotion structure" with minimal government involvement [62]. The major EPO is situated within the framework of the association Federal Economic Chambers (Wirtschaftskammern

Österreichs or WKÖ). In the WKÖ, established in 1848, all Austrian companies' membership is obligatory, which leads to the WKÖ's position of the legal representative of the entire Austrian business community [80]. Established by public law, the WKÖ is exclusively business driven, financially self-sufficient and managed through democratic self-government, making it fully independent from government" [42].

The WKÖ is responsible for providing a number of business-related services for its member companies. It also operates an integral but largely separate foreign division called Austrian Trade (Aussenwirtschaft Österreich or AWO), established in 1945, nearly hundred years later than its parent association the WKÖ. Thus, the AWO is in effect the WKÖ's sub-organisation primarily in charge of EP, described as the "key player in export matters, mainly in non-financial export promotion" [75]. The International Trade Centre (ITC) also reconfirms that AWO of WKÖ is the official EPO in Austria, describing AWO as the only institution responsible for EP [41].

The AWO of WKÖ's home network includes a head office located in Vienna, which has coordinating and controlling role over the AWO's Austrian (regional) as well as foreign-based EP activities. Its regional or provincial network consists of EP experts working at the nine provincial Chambers. These EP officials (at least one at every Chamber) are responsible for providing assistance for Austrian companies' exports. Outside Austria, the AWO of WKÖ's foreign network comprises seventy offices called Foreign Trade Offices (or FTOs) in fifty-two countries around the world.

The AWO of WKÖ's EP activities (within and outside Austria) include information provision on markets and products, counselling for exporting companies, seminars, matchmaking, export clubs, assistance provision regarding companies' participation in fairs and missions and even provision of certain kinds of financial assistance, to mention the major forms.

Besides the AWO of WKÖ, Industry Associations also participate in EP provision. In 2004, there have been approximately a hundred and ten industry-specific trade associations in Austria [42]. Nevertheless, their EP activities are rather limited compared to those of AWO's; including for instance buyer-seller contacts, as well as study visits or trade missions to export markets [64].

#### ***Changes to the Government's Role in the EP System***

As EP has traditionally been left to private forces, the Austrian government has not had a deliberate or strongly expressed EP policy. The two ministries somewhat involved in EP are the Ministry of Foreign Affairs (MFA) and the Ministry of Economy and Labour (MEL). The MFA has participated in EP through foreign diplomatic missions, mainly by cooperating with the FTOs; whereas the MEL, albeit having a foreign economic branch, has not directly participated in EP.

The EP initiative 'Go International', launched by the MEL in 2004, is an important milestone in the EP system's evolution in Austria, indicating that Austrian governments no longer stay away from EP matters [81]. Until the early 2000s, the rather symbolic government program 'Exportoffensive' was the only noteworthy form of government involvement in EP. Through the program 'Go International' however, the government has established a new, more active form of co-operation between government and the private EP providers: an informal 'contract' between the government and the WKÖ resulted in the government providing funding for EP, and established EP guidelines and overall targets which are to be implemented by AWO of WKÖ. It should be remembered however, that the AWO of WKÖ has still remained an independent private EPO, fully responsible for the implementation of EP activities.

This new government approach, which signals a more active engagement with EP matters, has been met with a positive response by the Austrian exporting community. At the same time it has also been perceived by the contemporary Austrian press as a great achievement in Austria's EP (see in [54]).

#### **Germany**

In Germany, the government has traditionally opted for minimal involvement in EP [62], and therefore German exporters have received "surprisingly few governmental export promotion and trade assistance funds" [27]. The philosophy behind this general government approach on EP has been the strong belief in the free enterprise system which has led to the dominant role of the private sector [51]. This philosophy has been also strongly expressed by government forces in the early-2000s: "In our free market economy, the own initiative of companies is to the fore. State promotion of foreign trade cannot replace industry's own efforts" [24].

Accordingly, most EP efforts have been channeled through private organisations [27], mainly through Chambers of Commerce and Industry Associations [8]. In fact, the major force behind EP provision for German companies has been the centrally organised Association of German Chambers of Industry and Commerce (Deutschen Industrie- und Handelskammertages or DIHK), established in 1861. The DIHK is the umbrella organisation for all Germany-based as well as Bilateral Chambers, and because every German company is legally obliged to join a local Chamber, the DIHK in effect represents the entire German industry. The DIHK's dominant role in EP is demonstrated by various government documents, where the DIHK is referred to first as the most significant institution in providing support for companies' internationalisation (see in [24] or [22] for instance).

The DIHK's home network includes eighty-one local Chambers, which all have standardised EP services in place, regulated by the DIHK. At the same time, the DIHK's foreign operations (since 1888), have by 2004 comprised a closely-knit network of approximately one hundred and twenty Bilateral Chambers in more than eighty countries [23]. Bilateral Chambers are considered as "independent institutions which earn a major share of their income themselves through the services they provide" [23]; nonetheless their EP tasks, similarly to Chambers within Germany, are centrally (by the DIHK) defined with great precision. Importantly, Bilateral Chambers provide EP services for members and non-members alike.

EP assistance undertaken by the DIHK's home and foreign networks (that is, by Chambers within and outside Germany) includes information provision on markets and products, export consulting, seminars as well as organisation of missions, fairs and conferences, amongst others.

Besides Chambers, Industry Associations and the Federation of the German Export Trade are perhaps the most significant private organisations that undertake EP activities, e.g. information provision or contact search. Their EP services however are less extensive or centrally organised compared to the Chambers' EP provision. The German Center for Productivity and Innovation (RKW) should also be mentioned, as a nationwide private company with a general business development profile, mainly targeted at small and mid-sized companies. The RKW however has only limited EP focus in their service provision. On the other hand, due to the unique focus on trade fairs in the German economy, there is a single body called the Association of the German Trade Fair Industry (AUMA) the main responsibility of which lies in trade fair matters. Even though the AUMA is not a typical EP organisation, its high importance for German exporters and its activities to mediate trade fair-related EP between government and private companies make AUMA an important component of Germany's overall EP system.

#### ***Changes to the Government's Role in the EP System***

The German government, having promulgated the private sector's supremacy in EP, has not traditionally laid emphasis on creating a coherent EP policy. The Federal Foreign Office (FFO) has been involved in EP through foreign diplomatic missions, but diplomats have mostly had only symbolic EP roles rather than providing actual EP services. The Ministry of Economy and Labour (MEL), however, has been more engaged with EP policy, most notably through its operational body German Office for Foreign Trade (BfAI), and by supporting (mainly through the AUMA) German companies' trade fair participation.

Since the 1990s, there has been a general shift towards the government's more active engagement with EP, which has manifested in several operational changes. Firstly, the government has extended the BfAI's EP responsibilities, so that the BfAI has been transformed from an information-providing agency with limited EP responsibilities, into the leading 'informative-harmonising' body in Germany's overall EP system. This includes that Germany's major export portal, iXPOS, has been launched (in 2001) and maintained by the *government* – rather than the DIHK.

Secondly, the government in 2003 established an initiative with EP focus, which, albeit not having major budgetary implications, has indeed signalled the more proactive stances of German governments. This has been most apparent in two specific areas: the BMWA's aim to strengthen the foreign network of Bilateral Chambers; and to further enhance German companies' participation in international fairs.

It should be noted that some international sources consider the government (through the BfAI) as Germany's major EP organisation (see [41; 42]). Within Germany, the BfAI, since its establishment in 1951, has challenged the leading role of the DIHK as private EP organisation, and the BfAI's EP influence has become stronger since the 1990s. At the same time, outside Germany, Bilateral Chambers' leading role in EP is still evident and has not been challenged by government forces. Overall, the government's increasing engagement with EP is

more significant within Germany, whereas in foreign countries EP assistance is still mainly provided by private rather than government forces.

#### **Sweden**

In Sweden, the EP system is described as one where there has been an “active involvement of the industry in the Government financed export promotion” [67], constituting a form of organised collaboration where government shares EP responsibilities and intensely cooperates with private EP providers [62]. In other words, the government has a leading role in EP, nonetheless a “major responsibility for Swedish trade [promotion] rests with the Swedish firms” [66].

The official leading EP organisation is the Swedish Trade Council (STC). The STC is co-governed and co-owned by two principals, the government through the Ministry for Foreign Affairs, and private forces through the Confederation of Swedish Enterprise. In its current organisational form, the STC has operated since 1972, and has been funded by both government and private contributions.

The STC headquarters in Stockholm, and has a regional network of twenty (recently established) one-stop-shop offices within Sweden. At the same time, the STC operates a long-existing foreign network, including forty-eight offices in forty countries [72]. The STC’s major EP services can be summarised as export information, e.g. about Swedish exports and market information, identification of business opportunities and conveying them to companies, advice where export techniques are concerned, promotional activities; export consulting, covering tailor-made solutions for setting up business in international markets; and export programmes, which focus on networking between companies or on companies that are new to the export market [73].

In the overall EP system, the two major private forces are the Confederation of Swedish Enterprise and the Swedish Chambers of Commerce. EP responsibilities of the Confederation of Swedish Enterprise are integrated into the leading Dutch EPO, as it is one of the co-owners of the STC. At the same time, the private Chambers of Commerce also constitutes major forces in EP. Chambers have an umbrella organisation, the Association of Swedish Commerce and Industry, and their major EP services are limited but standardised (see in [35]).

#### ***Changes to the Government’s Role in the EP System***

Swedish government EP has been administered by the Ministry of Foreign Affairs (MFA), the Ministry of Industry, Employment and Communication (MIEC), as well as organisations attached to the MIEC, i.e. Almi and Nutek. EP involvement of the MFA has been especially significant since the 1972 establishment of the STC (which the MFA co-governs). Besides, the MFA has undertaken some EP activities through diplomatic missions, albeit this has been subordinated to the STC. The MIEC, as well as Almi and Nutek, have participated in general business development, which has included EP provision. EP activities across these government bodies have traditionally been uncoordinated, and the government is yet to start harmonising its EP policy structure – apart from a proposed increase in consultation through the STC. Therefore, the overall government strategy for EP policy appears to be a ‘no-strategy’ approach [66].

On the operational level of EP, however, the government has since the 1990s implemented a number of significant changes. First, government-private forces have deepened their close affiliations – institutionalised in 1972 with the establishment of STC, through the government’s legal assignment of Sweden-based Chambers with EP responsibilities in 1990 and through including them in the STC’s operations, when in 1995 the STC was expanded with a regional network. At the same time, Bilateral Chambers have traditionally worked closely but independently from the STC’s foreign operations.

Second, not only Chambers, but also Almi’s operations have become better coordinated within the overall EP system, as Almi’s EP activities have become clarified and at the same time integrated into the STC-network in 1995. This has signified the government’s intention to reduce duplications within its own EP activities. Altogether, by means of the three-pillar-based Export Centres (constituted by Chambers, Almi posts and the STC itself), the government has attempted to supply a healthy one-stop-shop environment for the export efforts of enterprises [67].

The third change has been the government’s increasing control over the STC’s activities. Since 1990, the government has not just simply allocated funds for STC’s free of charge services, but it has also set up guidelines and requirements for the STC. Despite the significant decline in the extent of government funding for the STC, the government has become more interventionist in the STC’s operations.

Overall, in Sweden, coordination across EP organisations has not increased structurally on the government policy level. Nonetheless, the government has indeed instigated better cooperation on the operational level by increasing its involvement in Sweden's overall EP system.

#### **The United Kingdom**

In the UK, EP is provided by both the government and the private sector under an “[o]rganized partnership approach with extensive *sharing* and *cooperation*”, with the government dominating the system ([62], emphasis added). Sharing aspects of government-private partnership refer to the fact that the government makes “extensive use of private [forces] for the delivery of [its own EP] programs” [7]. At the same time, cooperation between government and private forces in the field of EP can also be described as a ‘grass-roots’ system that “integrates suggestions and monitors changes from organizations and individuals in close contact with occurrences in the field” [27].

The body that has leading role and main responsibility for the provision of EP assistance is the UK Trade & Investment (UKTI). UKTI as a government agency falls under the dual responsibility of the Ministers for the Department of Trade and Industry (DTI) and the Foreign and Commonwealth Office (FCO), and is entirely funded by the government (see [42] or [7]).

UKTI's onshore network consists of the London headquarter and forty-five national branch offices, whereas outside the UK around two-hundred commercial posts at diplomatic missions constitute UKTI's overseas network. UKTI's EP services include information provision on countries, companies and products, database of local offices that offer assistance to exporters, export sales leads, tailored market research, trade fair and trade mission sponsorship, grants to cover companies' export marketing research costs and costs stemming from export difficulties faced with due to foreign culture and language in the destination country, amongst others.

Major private organisations that have participated in EP provision include Business Link hubs and Chambers of Commerce (with optional membership), which are organised under the British Chambers of Commerce (BCC); as well as Trade Associations. Further private organisations, such as Export Clubs, the Confederation of British Industry (CBI) and the Institute of Export are also involved in certain aspects of EP. Underlining this, UKTI sources refer to these latter organisations as the government's partners when *developing*, whereas the former ones are cooperating with the government when *delivering* its EP services [74]. It should be noted that the Export Clubs, the CBI and the Institute of Export do not get directly involved in the actual provision of EP services.

#### ***Changes to the Government's Role in the EP System***

On the structural or policy level, the UK government has made extensive attempts to harmonise its traditionally divided onshore and offshore EP activities since the late 1980s. As a result, EP operations inside the UK, operated by the DTI; and those outside the UK, organised by the FCO through diplomatic missions, have become unified by creating the organisation UKTI (established in 2000). UKTI is thus the first single government body in the UK which is jointly in charge of and has integral targets for both onshore and offshore EP.

In parallel with these processes, the government has also introduced operational changes to the UK's overall EP system, including reforming both its own (government) EP networks as well as private EP providers' operations. Within the UK, links between government and private EP providers have become tighter. Most notably, the government has become more engaged and more authoritative with EP activities of Business Links and Chambers of Commerce (which are greatly overlapping). The outcomes of this process have been that the government has delegated more EP tasks to the Chambers (since 1988 and 1996); and that by the 2000s, the government has developed a more integral, but still privately managed home network for EP, through Business Link offices.

Outside the UK, the government has significantly strengthened its EP forces. Most notably, offshore government EP services have become more precisely defined and highly centralised, with the number of diplomats involved in EP trending up, and their funds relatively increasing.

These processes imply that UK government forces, having traditionally dominated the country's EP system while also assigning private forces to deliver EP services on their behalf, have become even more hands-on in EP. This has resulted in an EP system which is more coordinated and controlled by the government.

#### **The Netherlands**

The Dutch EP system is characterised by parallel-existing government and private services, where the government's role is central [41]. On the operational level, beyond the government's activities, EP services have been largely

carried out by independent organizations [62]. In areas where government and independent private EP bodies have provided similar EP services, they often competed with each other – causing potential clashes between government and private forces. Nonetheless, cooperation rather than clashes between government and private EP organisations has been more representative in the Dutch EP arrangements [20].

The official leading Dutch EP organisation is the Netherlands Agency for International Business and Cooperation (abbreviated as EVD, based upon its original Dutch name, Economische Voorlichtingsdienst). The EVD legally constitutes a part of the Ministry of Economic Affairs and is thus entirely funded by the government (see [28]). It should be noted that besides the EVD that has operated since 1936, the Centre for Promotion of Imports from Developing Countries (CBI), an agency of the Ministry of Foreign Affairs, has also worked with an EP focus since 1971 [52]. Nonetheless, as the CBI does not target Dutch companies, it is not considered as a major EP body for the purpose of this research.

The EVD has a central office located in The Hague, and has not traditionally had formal integral networks either within or outside the Netherlands. Since the early 2000s, however, the EVD has managed foreign operations, through the Netherlands Business Support Offices (NBSOs). The EVD's activities include export information provision, such as export data published on the web, export newsletters, tailor-made export services; matchmaking (i.e. bringing together Dutch suppliers and potential foreign buyers), including managing data bases, organising trade missions, amongst others; and general 'Holland promotion', for example through trade fairs, special events, etc. (see in [28]).

Of the major private EP providers, Netherlands Chambers of Commerce, where all Dutch companies' membership is obligatory; and Bilateral Chambers of Commerce Abroad should be mentioned in the first place. They do not have a strong umbrella organisation, however, EP services, especially in the case of Netherlands-based Chambers are largely standardised. Other private organisations with EP responsibilities include the Federation for Netherlands Export (Fenedex), the Netherlands Center for Trade Development (NCH) and the Netherlands Export Consortia (NEC). Traditionally, Chambers (both within and outside the Netherlands) have been the best-known and most widely-used private organisations for EP [20], nonetheless the NCH and Fenedex have also been significant.

#### ***Changes to the Government's Role in the EP System***

In the Netherlands, the ministry mainly in charge of EP is the MEA (as the parent organisation for the EVD), with its EP responsibilities complemented by those of the MFA. A great level of EP policy coordination between the MEA and the MFA has taken place since the 1950s, resulting in EP activities of the MFA-operated foreign diplomatic missions have becoming integrated into and controlled by the MEA's central EP operations (at the EVD's The Hague-based headquarter). Therefore, the MEA has not been compelled to open foreign (EVD) posts for EP.

The EP policy equilibrium between the MEA and the MFA was underlined by the 2003 government decision to reform the information system across the two Ministries and the EVD, by introducing the Hermes intranet system. This has caused the EVD to become an organisation with official 'clearing-house' and coordination responsibilities regarding EP-related information exchange between the MEA and the MFA. Overall, by the early 2000s, the government has cemented its highly integrated policy approach towards EP, making it very unlikely that EP policy becomes fragmented across the MEA and the MFA in the foreseeable future.

On the operational level, the mixed government-private EP system has shifted towards more government involvement since the 1980s. This shift has manifested in the EVD's significant enhancement, including the extension of its operational roles as well as creating foreign EVD posts to add to diplomatic missions' EP work; and the tightening government-private EP relations under government leadership.

The EVD's organisational evolution from passive information provider to "active export promoter" [20] has been apparent since the 1980s, with its main manifestations being the EVD's increasing EP responsibilities with the inclusion of tailor-made export consulting, matchmaking, specific country promotion programmes, etc., as well as the EVD's merger with other government bodies with internationalisation focus. In addition, the EVD has also been strengthened by the government's establishing foreign EVD offices since 1997. Creation of foreign EVD posts has taken place despite the long-established MEA-MFA agreement that diplomatic missions constitute a sufficient foreign network to support the EVD's EP activities (and thus no separate EVD foreign representations are needed).

Bearing this in mind, as well as that private forces of Bilateral Chambers have traditionally constituted a strong foreign network for Dutch EP, the fact that the government has indeed decided to open foreign EVD posts signals a definite increase in the government's commitment to foreign EP arrangements.

Government cooperation with Chambers and the NCH has been intensified remarkably. This has resulted in that, on the one hand, Netherlands-based Chambers have by the early 2000s become considered as the EVD's integral home network. On the other hand, almost every NCH office has had government officials participating in their EP activities, causing that the NCH has been referred to as a 'government agency', despite its fully private budgets and decision making capacity (see in [30]). In addition, establishing the Dutch Trade Board (DTB) in 2004, the government has intended to involve all major EP providers (the organisations of Fenedex and NEC as well, beyond the more traditional government allies of the Chambers Association and the NCH) in the planning and coordinating processes of the Dutch EP system. Thereby the government has not only aimed at improving the transparency and efficiency of the country's overall EP arrangements, but has also clearly expressed its own leading role in the system.

To conclude, the most significant changes to Dutch EP arrangements have occurred on the operational rather than the structural policy level. This is due to the fact that EP policy has traditionally been well-harmonised in the Netherlands, thus it has not been necessary for the government to carry out reforms in this respect. On the other hand, the government has recently intensified its involvement in EP, by strengthening its own EPO's influence at the expense of other EP provider organisations, both within and outside the Netherlands; and by more closely cooperating with and coordinating private EP providers' activities.

#### **Italy**

In Italy, government and private forces have traditionally "carried out own separate [EP] activities" [62], constituting a symbiotic EP system where the government dominates. Nonetheless, there have not been a great deal of positive synergies gained from this symbiosis, as private EP providers have not been well integrated with the Italian government [27]. In addition, EP policies and mechanisms between government and private forces have been criticised for being "largely inadequate in terms of [...] coherence, homogeneity and functionality" [6].

The main Italian EPO has been the Italian Institute for Foreign Trade (Istituto Nazionale per il Commercio Estero or ICE). ICE as a statutory organisation responsible to the Ministry of Industry and Trade and was established in 1926 [42]. Funding for ICE is dominantly, at around eighty per cent, by the government, whereas the remaining twenty per cent of ICE's budget stems from the private sector in the forms of charges to customers for services as well as subscription and membership fees [40].

ICE's headquarter is in Rome, and operates through sixteen (recently established) national offices across Italy; whereas ICE's foreign networks include hundred-and-four offices abroad. ICE's major EP services (provided through its onshore and offshore networks) are divided into four groups: information, promotion, multilateral cooperation and training services; ranging from market analysis, through partner identification and corporate promotion, to technical and operational assistance.

Besides ICE, other major actors participating in EP provision include the organisations of Chambers of Commerce (where all Italian companies' membership is compulsory), Trade and Industry Associations and Export Consortia. These organisations also play a significant role in EP provision, especially Chambers and Export Consortia (see in [6] and [76]). However, EP services of individual Chambers or Consortia are not standardised, therefore they do not constitute as homogenous organisations as for instance ICE's networks.

#### ***Changes to the Government's Role in the EP System***

The Italian government has implemented structural changes to EP policy by improving coordination between ministries involved with EP matters; and operational changes regarding both government and private EP providers' services, including enhancing the government's own operations, increasing government intervention into private EP providers' activities and better coordinate between the two.

The Ministry of Foreign Trade (MFT) and the Ministry of Industry, Trade and Crafts (MITC), as well as the Ministry of Foreign Affairs (MFA) have traditionally undertaken separate and un-coordinated EP activities, which has led to a highly fragmented overall policy for EP. The MFT's involvement in EP has been most significant by virtue of the fact that the MFT is the steering body behind the ICE. At the same time, the MITC has undertaken EP activities through its general business development bodies, such as the Institute for Industrial

Promotion (IPI), while the MFA has also been engaged with EP, mainly through diplomatic missions' 'Italy promotion' activities.

Bringing about structural changes to EP policy have been considered vital since the late 1990s, and thus the government has initiated an extensive harmonisation process, signalled by the 1999 creation of 'super-ministry' Ministry of Productive Activities (involving the MFT and MITC), and the 2003 establishment of the National Coordination Body for Foreign Economic Policy.

On the operational level, the government's shifting approach on its own EP activities has been apparent in that ICE, after a trial of changing it into a semi-private-like organisation, became operated under full government control again in 1997. Moreover, the government has intended to take better advantage of EP capacities at Italy's diplomatic missions, and thus throughout the 1990s strengthened the EP support undertaken by commercial diplomats, while harmonising it with ICE's foreign operations.

On the other hand, the government has also carried out changes to the overall Italian EP system by increasing its own authority in private EP providers' activities – mainly with regards to Chambers, when the government's regulative power over EP operations of Bilateral Chambers was extended in 1993. EP activities of the Export Consortia started to be regulated by the government in 1989 and 1991. The government has also intensified cooperation between government and private forces in EP. Major manifestations of the improved cooperation have been the establishment of Consultative Committee (1997); Programmatic Agreements (since 2000); creation of one-stop-shops for internationalisation both within Italy and abroad (from 2003); and developing common information network between government and private EP providers in 2004.

Overall, the most crucial change to the EP system in Italy has been the government's attempt to resolve problems caused by the fragmented nature of the overall Italian EP system. Government EP operations (mainly through ICE and EP activities of diplomatic networks), accompanied by a number of private EP providers, previously constituted a system of "useless duplication and frequent overlapping" (Bonvicini et al 1998). As the government has increasingly perceived EP as an important policy area, and has established a more harmonised EP policy, the obvious disadvantages of the parallel EP structures between government and private EP providers became increasingly intolerable.

## Conclusions

The major steps of the government's increasing engagement with EP are summarised in Table 2.

Comparing some of the fundamental constant (or slowly changing) differences across the investigated countries' EP systems; the first remark to make is that these countries have different institutional systems. Adapting Hall and Soskice's framework (see in [34]), the case study countries can be grouped by different values of capitalism. The UK is the only country with liberal market economy institutional arrangements; Austria, Germany, the Netherlands and Sweden are coordinated market economies; whereas Italy cannot be clearly grouped into either. General characteristics of systemic arrangements in liberal market economies are described as "firms coordinating their activities primarily via hierarchies and competitive market arrangements" as opposed to the coordinated market economies', where "firms depend more heavily on non-market relationships to coordinate their endeavours with other actors and to construct their core competencies" [34]. These fundamental differences have contributed to some of the traditional differences across the investigated countries' EP systems.

Another difference, overlapping with the above general institutional reasons, is the framework of Chambers of Commerce. Four of the investigated countries, namely Austria, Germany, the Netherlands and Italy, have Chambers with public law status where companies' membership is obligatory [29]. These Chambers are unique in the sense that they represent both public and government as well as private interests within their internal structures [77]. In theory, it appears relatively easy and cost-effective to organise an integral EPO within the existing framework of Chambers networks (both in their home and foreign countries). Of the four countries, in Austria (clearly) and Germany (less clearly) the leading EPO has operated through the Chambers system. In the Netherlands and Italy, however, the government has developed its own EPO, with both home and foreign operations.

TABLE 2: SUMMARY OF CASE STUDY FINDINGS – BY COUNTRIES

	AUSTRIA	GERMANY	SWEDEN	UK	THE NETHERLANDS	ITALY
<b>THE EP SYSTEM</b>						
Major EPO	AWO of WKÖ (private org.) - AWO (est. 1946) is a separate org. within the Chambers' framework (est. 1848), with a home-based headquarter and strong foreign network for EP - All companies' membership is obligatory in Austria-based Chambers	DIHK (private org.) - Germany-based Chambers (est. 1861) and Bilateral Chambers (est. 1888) with clear and standardized EP responsibilities - All companies' membership is obligatory in home-based Chambers	STC (government-private org. since 1972) - Traditionally rather foreign-based, with 1 home-based headquarter	UKTI (government org.) - Foreign operations within the diplomatic missions' organisation, home operations traditionally run by the DTI - Est. in 2000 in its current organisational form	EVD (government org.) - Traditionally 1 home-based headquarter (est. in 1936), strongly cooperating with diplomatic missions	ICE (government org.) - Traditionally rather foreign-based, with 1 home-based headquarter (est. in 1926)
Other major organizations involved in EP	- Private, industry-specific trade associations	- The government body BfAI - Industry Associations - Federation of the German Export Trade - RKW - AUMA	- Private Chambers, where membership is <i>not</i> obligatory	- Private Chambers, where membership is <i>not</i> obligatory - Private trade associations	- Chambers (with obligatory membership) - Private NCH - Private Fenedex - Private NEC	- Chambers (with obligatory membership) - Private Trade and Industry Associations - Private Export Consortia
<b>THE GOVERNMENT'S ROLE IN THE EP SYSTEM AND ITS CHANGES</b>						
Ministries/ gov. departments traditionally involved in EP	- MFA: cooperates with foreign AWO posts, through diplomatic missions - MEL: operates a foreign economic branch, however traditionally has not had a specific EP policy	- FFO: diplomatic missions' involvement is mainly only representative rather than actively participating in EP - MEL: more significant involvement in EP, mainly through supporting trade fair participation	- MFA: its involvement has been significant since the 1972 formation of the STC, in which the MFA is co-owner; additionally, involvement through diplomatic missions - MIEC: EP involvement through its business development bodies	- FCO: in charge of offshore EP through diplomatic missions - DTI: in charge of onshore EP, traditionally through its headquarter office for EP	- MEA: responsible for steering the EVD - MFA: diplomatic missions' strong EP cooperation with the EVD	- MFT: responsible for steering the ICE - MITC: EP involvement through general business development bodies - MFA: involved in EP through diplomatic missions
Overall gov. policy for EP and changes	- As EP provision is mainly left to private forces → the government does not get significantly involved in EP matters, even on the policy level	- EP is handled mainly by the MEL, through the BfAI; however, this does not involve developing a strong EP policy, as EP provision is dominantly left to private forces	- No apparent government effort to better coordinate EP policies of the two Ministries to create one coherent, overall EP policy	- The two Ministries' EP policies have recently become fully harmonized → the result is the creation of UKTI (2000)	- Traditionally good harmonization of the two Ministries' EP policies - EP collaboration between the two Ministries have become even closer with a common information system (2003)	- Strong government view that EP policy harmonization across all participating government bodies is vital → deliberate coordinating efforts since late 1990s
Operational changes to the overall EP system	- The government started to initiate EP programmes (1998, 2004), while also providing guidelines and targets for the AWO of WKÖ's EP operations → - The AWO of WKÖ, although still independent, has become closer linked to government forces	- The government has extended the BfAI's responsibilities (1990s) → the government has become the 'information-ruler' in the EP system - The government has established initiatives (2003) to enhance trade fair participation and boost AHKs	- The government legally assigned Chambers with EP responsibilities (1990) - The government has included Chambers into the STC's home network, Export Centers (1995) - Increasing cooperation between the STC and Almi (a MIEC agency), through joint participation in the Export Centers (since 1995) - Government's more direct intervention into the STC's overall operation (since 1990)	- The government has intensified its EP ties with Chambers through delegating more EP tasks to Chambers (1988, 1996) - EP activities of Business Link private offices (mainly run by Chambers) have become more directly regulated by the DTI (2000) - UKTI's foreign operations (undertaken by commercial diplomats at diplomatic missions) have been enhanced (since late 1990s)	- The government has expanded the EVD's roles (since 1980s), as well as merged the EVD with other internationalisation agencies (2004) - The government has created foreign EVD posts, to establish an integral EVD network at strategically important markets - Chambers have traditionally cooperated with the EVD, but this has been even more intensified through a covenant (1990) and common campaigns (2003-2004) - The government has intensified its EP cooperation with the NCH (early 2000s) - The government has also intensified its cooperation with the Fenedex and the NEC, through establishing the DTB (2004)	- The government has strengthened its control over the ICE (1997) - Diplomatic missions' EP activities have been enhanced (1990s) - The government extended its regulative power over Bilateral Chambers' EP activities (1993) - The government started to intervene into Export Consortia's EP (1989, 1991) - Government initiatives to improve cooperation across all EP providers: establishing the Consultative Committee (1997); Programmatic Agreements (2000); internationalisation one-stop-shops both in Italy and abroad (from 2003); common information network (2004)

This signals that governments in the latter two countries have traditionally had more proactive stances on direct intervention in EP.

Cultural differences can also explain some aspects of the variation of EP systems. Within the ‘culture’ of exporting, companies’ motivations to export or the lack of them are worth considering. Exporting and especially, starting to export is always associated with a certain degree of uncertainty. Therefore, cultural dimensions can be traced back to firms’ ‘avoidance of uncertainty’ [38]. The level of uncertainty avoidance varies to a great extent across the case study countries, which is demonstrated in Figure 1<sup>(1)</sup>. Due to space limitation, no detailed analysis is provided here. Nonetheless, uncertainty avoidance, being correlated with companies’ perceived need for EP, appears to contribute to the differences across the investigated countries’ EP systems.

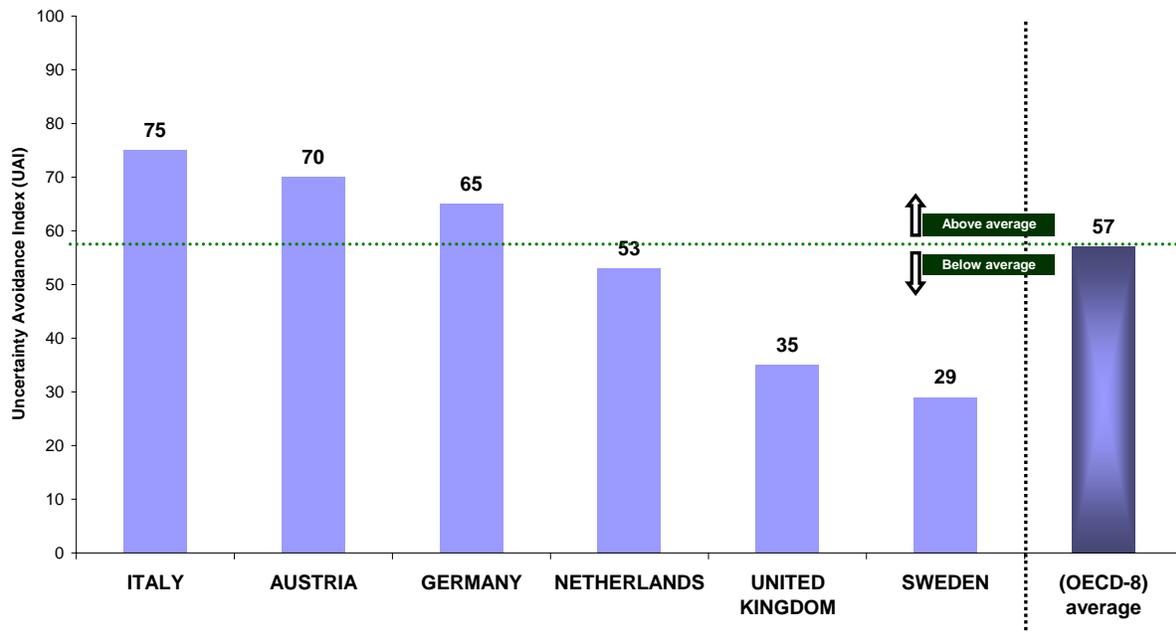


FIG. 1: CASE STUDY COUNTRIES’ NATIONAL CULTURES – THE ‘UNCERTAINTY AVOIDANCE’ ASPECT  
Source: [38]

These differences partly account for the traditionally large variation in the investigated countries’ EP systems. However, they do not explain why *all* case studies exhibit a definite shift toward *more* government involvement in the EP system. Seeking the rationale behind this common phenomenon, other, less constant factors with significant impact on a country’s EP system are considered. One of the most obvious factors is perhaps the countries’ export performance, as poor macro-economic and export indicators can lead governments to intensify their EP policies.

Figures 2-4 present some indicators on the case study countries’ general economic performance, export growth and trade balance. First, Figure 2 establishes comparability across the case study countries from a general economic perspective, as neither the past decade’s gross domestic product (GDP) growth rates, nor recent GDP and GDP/capita rankings of the case study countries exhibit a great deal of variation. In other words, all these countries perform well by overall economic standards.

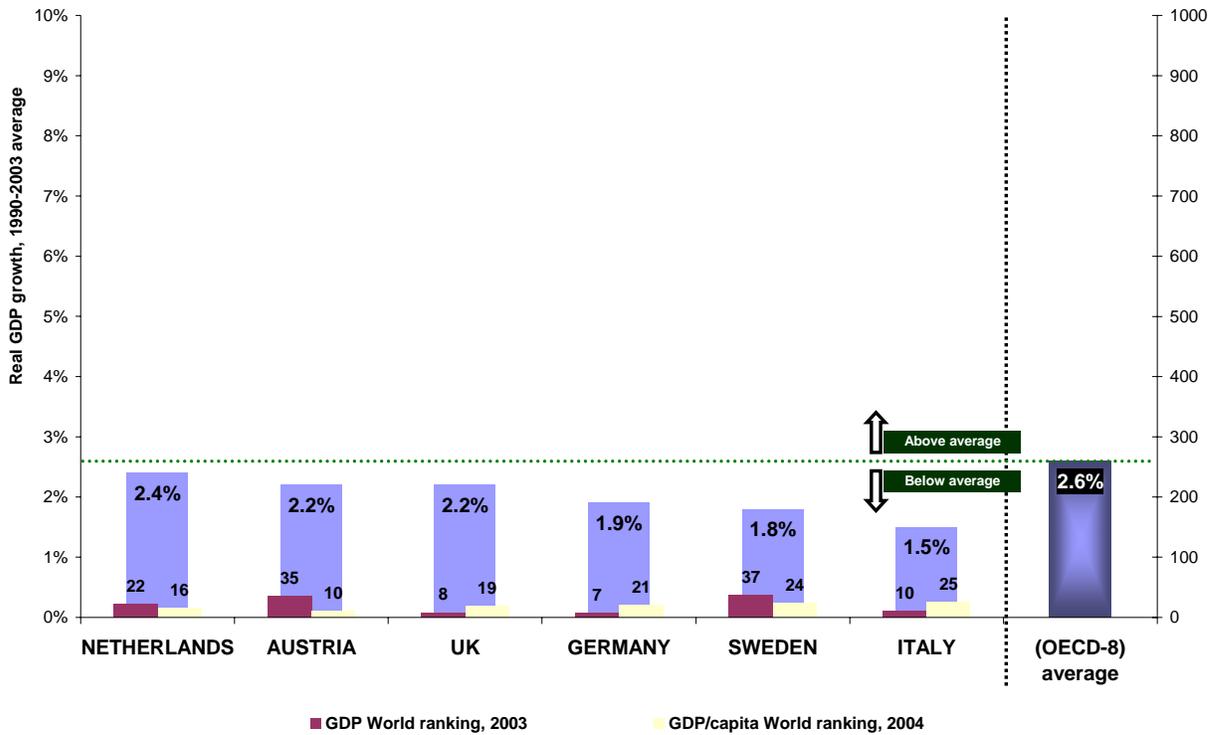


FIG. 2: CASE STUDY COUNTRIES' GENERAL ECONOMIC PERFORMANCE – GDP GROWTH  
 Source: [55] and [11]

At the same time, the case study countries show slightly more variation in their exports growth. As Figure 3 shows, Sweden, Germany and Austria, as well as the Netherlands to a lesser extent, exhibit close to average export growth. The UK and Italy, on the other hand have slightly slower export growth, ranking amongst OECD countries with the lowest exports/GDP level.

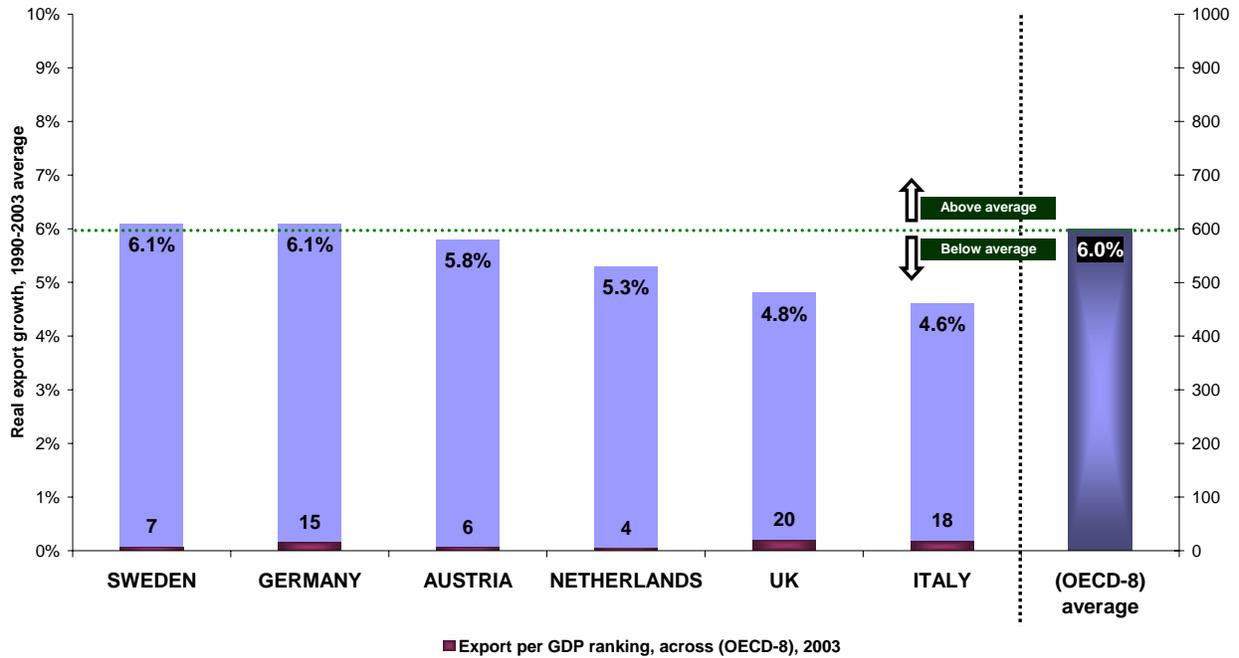


FIG. 3: CASE STUDY COUNTRIES' EXPORT PERFORMANCE – EXPORT GROWTH  
 Source: [56] and [68]

Figure 4 provides the indicators which perhaps play the most important role in government decisions on export policy that is the trade balance indicators (i.e. the country's overall exports minus imports, expressed as the proportion of the country's GDP). As it is demonstrated, only Sweden and the Netherlands have had very 'healthy' trade balance indicators, while Germany and especially Austria and the UK have exhibited strong deficits in their trade balance over the last decade.

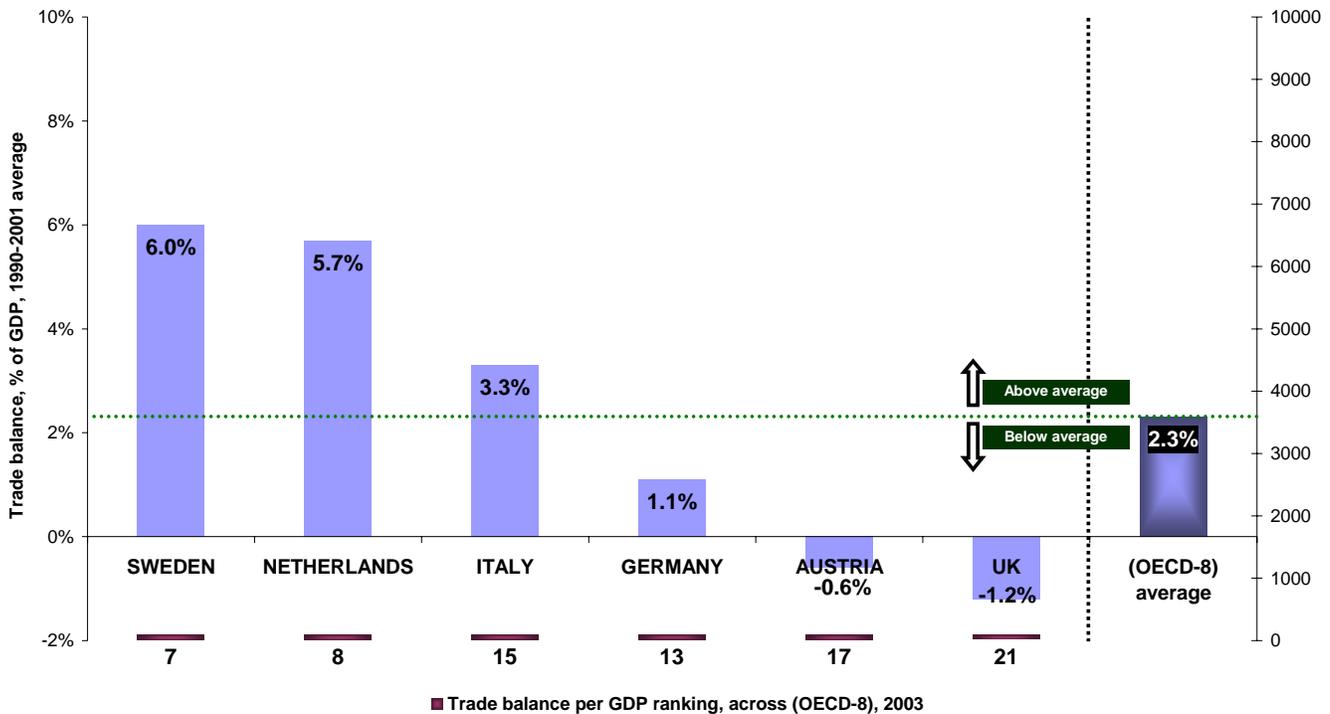


FIG. 4: CASE STUDY COUNTRIES' TRADE BALANCE SITUATION  
Source: [57]

Overall, the most significant export-related differences lie in the investigated countries' trade balance indicators. The UK and Austria's poor trade balance situation has certainly put pressure on governments in these countries to improve their export policies, and perhaps intensify their EP engagements. In Sweden and the Netherlands, however, due to their healthy trade balance indicators, this pressure has not been present.

There are other factors that potentially cause governments to become more active in EP, for instance domestic political groups, the companies themselves, or other country-specific factors. However, these significantly vary across countries. Therefore it is unlikely that domestic factors influencing governments' engagement with EP would bring about similar tendencies across the case study countries' EP systems.

In conclusion, the investigated countries exhibit great variation in terms of their institutional systems, company-organisation methods (i.e. the Chambers system), export culture and export performance (expressed by trade balance indicators). Nevertheless, they all have experienced an increase in government involvement within their EP systems. Hence, the shift towards the government's EP influence has occurred irrespective of *domestic* factors influencing the EP system. This indicates that factors that have caused EP systems to undergo analogous changes have come from the *global* arena.

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### End Notes

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<sup>1</sup> In Figures 1-4, data on the case study countries is compared to the average of twenty-two OECD countries (which includes the case study countries as well). These countries, referred to as (OECD-8) include all OECD members, excluding those which are not amongst the world's top fifty countries in terms of their GDP ranking, namely the Czech Republic, Hungary, Mexico, Poland, Slovakia and Turkey [11]. In addition, Luxembourg and Iceland have been omitted, due to their small size. Hence, (OECD-8) refers to the following countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States.

## **Regional Financial Arrangements in Pacific Asia**

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### **Abstract**

Globalization, if properly managed, may help push some developing countries into modernity and affluence. But as the Asian financial crisis of 1997-98 suggests, embracing global financial markets can also be highly dangerous and costly. The severity and contagiousness of the crisis underscored the need for reforming the international financial system. Numerous proposals have been put forward, but little progress has been made. As long as the structural problems on the supply side of international capital flows are not addressed, the emerging market economies and developing countries will remain as vulnerable to future speculative attacks on their currencies and financial crises as they were before the Asian crisis. Given this reality, emerging market economies and developing countries may have no choice but to develop their own defense mechanism. In light of the Asian financial crisis, this paper examines the recent debate for establishing regional financial arrangements such as the “Asian Monetary Fund” and the Chiang Mai Initiative as a defense mechanism against speculative attacks on currencies in the future.

### **Introduction**

The Asian financial crisis has raised a series of questions regarding international financial architecture, including the governance of the international financial system and exchange rate regimes. Unlike the two previous financial crises in the first half of the 1990s—the ERM crisis of 1992 and the Mexican crisis of 1994-95, the Asian crisis of 1997-98 provided a wake-up call to the international financial community. The severity and contagiousness of the crisis underscored the importance of renewed interests in reforming the international financial architecture, and numerous proposals have been advanced and debated. The G-7-led reform, however, ignores the problems of the supply side of international finance, and concentrates its efforts on reforming the financial and corporate sectors of developing countries. From the perspective of developing countries, therefore, it appears that they will remain vulnerable to future financial crises even if they faithfully carry out the kinds of structural reform recommended by the IMF and the World Bank.

In light of the Asian financial crisis, this paper examines a few select issues dealing with: (1) the role of international financial institutions such as the IMF, (2) the choice of an appropriate exchange rate regime for the emerging market economies (EMEs) and developing or less developed countries (LDCs), (3) the impact of financial liberalization and capital controls, and (4) the arguments for and against for establishing regional financial arrangements such as the “Asian Monetary Fund” as a defense mechanism against speculative attacks on currencies. Each of these issues will be examined and discussed from the perspective of the East and Southeast Asian EMEs and LDCs.

### **Financial Market Liberalization in Developing Countries**

Since the early 1990s, financial markets in the world have been integrating rapidly. This has led to surges in private capital flows to developing countries and other EMEs. Major advances in information technology have reduced transaction costs. Foreign investors saw higher long-term rates of return and the new opportunities for risk diversification in developing countries. At the same time, ongoing economic reforms and financial liberalization have made developing countries more attractive to overseas investors.

Outstanding economic performance of the Asian “miracle economies” in the late 80s and the early 90s attracted a surge in private capital into these emerging economies. That surge in capital inflows helped fuel the increase in the bank credit-financed investment boom. At the same time, however, the surge in private foreign

capital made these economies extremely vulnerable to a financial panic. According to the Bank for International Settlements (BIS), the total net private capital flows into the Asian emerging markets during 1994-96 amounted to a whopping \$184 billion. In 1996 alone, there was a record capital inflow of \$93 billion into Thailand, Malaysia, Indonesia, the Philippines and Korea (hereafter called the Asian 5). With the onset of the crisis in the second half of 1997, markets overreacted and international investors panicked. Off they ran with \$105 billion! This reversal was equivalent to 11 percent of the combined GDP of the Asian 5. This was the greatest reversal of private capital flows ever recorded in the world economy, and represents “the most significant geo-financial adjustment to date in the relatively new era of globally integrated capital markets” (Makin 1999, p. 408).

#### **The East Asian Meltdown**

It was this reversal of capital flows that precipitated the Asian currency crisis, eventually pushing “miracle” economies into a dramatic financial meltdown with serious economic, social and political consequences. Grenville (1998, p. 13) sums up the story of the “Asian meltdown”:

Large capital inflows led more-or-less inevitably, to excessive credit growth and growth of the financial sector, because it was not possible to sterilise them fully. The large flows meant, also, that there was easy funding available for projects (both good and bad), and that asset prices were bid up. Similarly, the large capital flows made it difficult to raise interest rates higher (they were already quite high), for fear of inducing even more capital inflow. High domestic interest rates, at the same time, persuaded many borrowers to take the risk of tapping into attractively lower foreign currency-denominated borrowing. Further, with quasi-fixed exchange rate regimes in these countries, there was little incentive for institutions borrowing in foreign currencies to hedge their debt. These issues should have been recognised as sources of vulnerability, but the focus was on growth, without enough concern about resilience in the face of *variance* in growth.

The crucial combination was the large volatile foreign capital flows and fragile financial systems. These two elements, in combination, made the Asian emerging market economies extremely vulnerable to changes in investor *confidence*. Thus, “In a matter of just a few months, the Asian economies went from being the darlings of the investment community to being virtual pariahs... Suddenly, Asia’s leaders could do no right. The money fled.” (Sachs 1998).

#### **The International Financial Architecture**

The Asian financial crisis has rekindled the debate on the role of international institutions, especially that of the IMF, and has raised a series of questions regarding international financial architecture, including the governance of the international financial system and exchange rate regimes. The Asian crisis has shown that there are serious systematic problems inherent with the current global monetary and financial arrangements. It has increased our awareness of the need for global governance of international finance so as to prevent the recurrence of similar crises in the future.

One of the main problems with the current international financial system is that there is no governance of international financial transactions similar to that found in the area of international trade. The present structure is designed to discipline international borrowers rather than international lenders. International institutions and arrangements that we now have are designed to manage rather than to prevent crisis. With ever-rapidly increasing degree of financial integration taking place in the world economy, the global impact of interest and exchange rate policies has become much more important than before. There is no effective surveillance mechanism in these areas. There is also a dire need for the orderly workouts based upon rules and bankruptcy procedures that govern international debtor-creditor relations. All countries in the international community need to focus their attention to these issues as part of their efforts towards improving the governance of international finance.

#### **Alternative Foreign Exchange Rate Regimes for Developing Countries**

The recent Asian crisis has shown that in the world with increasing degree of capital mobility, the traditional means of fixing the exchange rate do not work. The goals of exchange rate stability and capital mobility are simply incompatible as can be explained in terms of the so-called “open economy trilemma.”<sup>1</sup> Countries now face two crucial questions: One is the question of choosing appropriate exchange rate regimes, and how flexible they should be. The other is the question of liberalizing international capital flows, and how rapid it should be.

Countries have three choices in determining the monetary linkage between their economy and the rest of the world: (1) Flexible regimes where countries let their currency float in the exchange markets against all other

currencies; (2) fixed regimes where they can fix the price of their currency against a specific foreign currency or a basket of foreign currencies; (3) intermediate regimes where they let their currency float to some extent but intervening to limit those fluctuations according to some pre-determined parameters such as “target zones,” “crawling bands,” and so forth.

The choice of exchange rate regime depends on the particular circumstances facing the country under question. One proposition is that countries should move toward increased exchange rate flexibility. Those who take this position point to the consequences of the futile attempts to maintain the fixed rates in Thailand, Indonesia, Korea, Russia, and Brazil, which all ended in costly currency crashes. Another proposition is that all countries should move toward making institutional commitment to firmly fixing the exchange rate. For instance, use of currency boards in Hong Kong and Argentina has enabled these economies to weather successfully the storms of financial crises in recent years.

In the wake of the Asian financial crisis, however, there appears to be an increasing consensus on the view that the intermediate exchange regimes are not sustainable in a world with large scale capital flows, and consequently, countries are increasingly forced to choose either free-floating or firm-fixing. The logic behind this proposition can be explained by the open economy trilemma. The principle says that with its open economy, a country simply cannot achieve all three goals of exchange rate stability, monetary independence, and financial market integration simultaneously; it must give up one of three goals at a given time. Two goals of exchange-rate stability and monetary independence can only be attained with the imposition of *capital controls*; in other words, the goal of financial market integration with increased capital mobility must be sacrificed. Likewise, two goals of exchange rate stability and capital mobility can only be achieved at the expense of giving up the autonomy of monetary controls. With freely floating exchange rate regime, currency volatility is the price for attaining goals of monetary independence and free capital mobility.

The globalization of financial markets has increased the degree of cross-border capital movements in recent years. In terms of the open economy trilemma diagram, this trend of greater financial integration has pushed most countries toward the lower part of the triangle. If further financial liberalization efforts push these countries to the bottom line of the triangle, the choice will be narrowed down to choosing either free-floating or firm-fixing as in the case of a monetary union. As emphasized by Jeffrey Frenkel, however, “there is nothing to prevent the country from choosing an intermediate solution between floating and monetary union” even under perfect capital mobility (Frankel 1999, p. 6).

Free-floating allows a country to maintain its freedom in conducting monetary policy and other macroeconomic policies since it does not have to use them to defend the exchange rate. However, markets can overshoot the economic fundamentals: They can push the value of currency far below its underlying economic value, generating inflationary pressures and raising debt servicing costs, or they can push the exchange value far above the true value, hurting the country’s export competitiveness and therefore its trade balance. On the other hand, fixed exchange rates can help countries avoid those costs if the governments can successfully establish the rate at a sustainable level and convince the markets of their willingness and ability to maintain the rate at that level. Fixed exchange rates also reduce the transaction costs of international trade and investment. Moreover, the option for adjusting the fixed rate according to some predetermined parameters provides countries with “an additional policy tool that can be used to correct an excessive external deficit or surplus” (Bergsten 1999, p. 2). In fact, this has been the most important rationale for adopting a variety of intermediate exchange rate regimes by many countries, including the Asian 5 since 1976.

The pegged exchange rates were frequently singled out as one of the leading causes of the Asian crisis of 1997/98. Before the crisis, many East and Southeast Asian countries pegged their currencies to the U.S. dollar in one form or another, even though their economies were more closely linked to the Japanese economy. As a result, these countries benefited any time the yen appreciated against the dollar, but lost their export competitiveness in the world market badly whenever the yen depreciated against the dollar. In other words, the exchange rates of the Asian currencies simply could not reflect the fluctuations in the dollar/yen exchange rate, and their economies were highly susceptible to these dollar/yen rate fluctuations. Thus, as was pointed out by McKinnon (1998), it is more correct to say that the Asian crisis was caused by the instability of the dollar/yen exchange rate rather than the pegged system

itself as used by these countries. Also, the performance of the stock markets of East Asian countries was greatly influenced by the dollar/yen exchange rate fluctuations (Moon, Rhee & Yoon 2000, p. 165, Figure 2).

Successful defense of a fixed rate can be costly, requiring a country to raise interest rates and slow down its economy to avoid speculative attack. The main trouble, however, is that governments may try to maintain a rate at unsustainable level for too long until private capital flows will eventually force devaluations or revaluations. Such “forced” adjustments in exchange rate can become very devastating and costly, as was amply demonstrated by the Asian crisis. In the era of globalization of financial markets with huge private capital flows, there is a growing consensus that countries can enjoy the benefits of fixed exchange rates only in two ways. They can impose and maintain extensive capital controls in order to directly limit their vulnerability to speculative attack. Or they can establish a currency board as adopted in Hong Kong and Argentina, officially dollarize their currency as in Ecuador, or establish/join a monetary union as in EU.

#### **Financial Market Liberalization and Capital Controls**

One lesson we have learned from the Asian crisis is that opening up the financial market before nurturing a sound financial system and institutions is a very risky business. Korea, for instance, has overestimated the potential benefits of joining the OECD (Organization for Economic Cooperation and Development). One of the requirements for joining the club was to liberalize its financial market.

Several lessons can be drawn from the Korean case of premature financial market liberalization. First, domestic financial systems must be liberalized before opening to foreign capital. By and large, the East and Southeast Asian countries were more or less in the same boat as was Korea. Ceilings on interest rate, government-directed lending, insider relationships between banks and borrowers have all served to channel credit without regard for rates of return, thus leading to misallocation of resources. Foreign capital inflows were channeled through the same process of intermediation, leading to excessive investments and maturity mismatches in assets and liabilities. Second, financial liberalization requires strict bank regulation and supervision in order to prevent a reversal in capital flows. This includes the imposition of ceilings on foreign currency exposure for the banks. Third, free capital movement and pegged exchange rates are simply a dangerous mix: Goals of capital mobility and the stability of foreign exchange rates are not compatible. A fixed exchange rate regime prevents central banks from using higher interest rates to keep the economy from overheating, but it also encourages foreign currency borrowing when interest rates overseas are lower than those at home. Fourth, financial markets require reliable information and transparency to function efficiently. If foreign lenders had better information about the borrowing activities of Korea's private sector, they would have pulled back their funds earlier, and the impact of the abrupt withdrawal of funds on the economy would have been much less severe.

Many in the economics profession argue against capital control measures. They argue that the financial market is the best device for allocating global capital efficiently among countries and between competing uses. Global capital markets will provide capital-needy countries with additional funds for their growth, while allowing investors to diversify their portfolios. If capital is allowed to flow freely, markets will reward countries that pursue sound economic policies and pressure others to do the same. We all become beneficiaries of free capital movement. The Asian crisis, however, has given us an important lesson-- that is, financial liberalization must come only after nurturing of the incentive structure and capacity to regulate financial markets. Until then, various measures for restricting capital flows may be in order.

*The Tobin Tax*—One way of limiting international capital flow is to selectively tax capital account related transactions, such as the Tobin tax or variants of it.<sup>2</sup> Such a tax involves the differential taxation of foreign exchange conversions arising from capital flows (Tobin 1978; Eichengreen, Tobin & Wyplosz 1995; Garber & Taylor 1995). The Tobin tax provides market participants with an incentive to take a long-term economic outlook rather than short-term hunches in buying and selling foreign exchange and securities. Traders must pay a tax (for example, say, 0.1 %) for every transaction so that they would buy or sell only when the expected returns justify the additional expenses, resulting in fewer transactions. One difficulty for implementing the Tobin tax, however, is that all major currency trading countries must apply the tax at the same time. Otherwise, traders could simply shift their transactions to tax-free countries (Kasa 1999).

*Controls on Short-Term Capital Flows*—One way of preventing the possible unproductive use of foreign capital when channeled through the domestic banking and financial system is to prohibit its entry by imposing

capital controls. Capital control measures used by Chile, for instance, are not designed to discourage inflow of foreign capital at large, but they are specifically aimed at discouraging short-term capital inflows. Local firms that borrow abroad are required to keep 30% of all non-equity capital on deposit at the central bank, interest free for one year. This deposit requirement is tantamount to a tax on capital inflows with a maturity of less than one year; it is aimed at encouraging firms to borrow more for longer-term purposes. Studies have shown that such capital control measures in Chile have not adversely affected the size of foreign capital inflows, but simply affected the composition of such flows, although capital controls in Chile caused “a large increase in the cost of foreign financing for Chilean companies.”

Chile also requires that any foreign money coming into Chile must stay in the country for at least one year. This requirement has discouraged many hedge funds and pension funds from investing in Chile at all. In the wake of the Asian financial crisis, several countries have adopted capital controls. Among them was Malaysia, which imposed currency controls and prevented foreign shareholders from taking their money out of the country for a year. Taiwan delayed implementation of its plans for full liberalization of international capital flows. Financial liberalization is critical in this era of globalization for a country’s long-term growth and development. But financial liberalization should follow a sequence. The East Asian countries made the mistake of increasing their vulnerability by wooing foreign capital through capital account convertibility before addressing their fundamental financial weaknesses in a timely manner.

## **Regional Financial Arrangements**

### **The Role of International Financial Institutions**

In the mid-1990s even before the onset of the Asian financial crisis, some observers were suggesting that the IMF should be closed down. The crux of the argument was that in a world of floating exchange rates and globalized financial markets, an agency such as the IMF was no longer needed. Opinions differ widely on whether the IMF has a systematic role as under the Bretton Woods system—such as “managing global exchange rates, coordinating macroeconomic policy, and seeking to ensure that the quantity of international reserves was adequate” (Bird 1999, p. 955).

In “bailing out” the three crisis-stricken Asian countries—Thailand, Indonesia and Korea, charges were made against the IMF for prescribing the same old medicine for a new illness. Take Korea as an example. The immediate cause of the financial crisis in Asia in general and Korea in particular was the abrupt withdrawal of foreign capital, especially short-term hot money flows. Especially for the case of Korea, the crisis was clearly a case of temporary illiquidity rather than fundamental insolvency. The IMF adjustment program called for a severe contractionary macroeconomic policy of higher taxes, reduced spending, and high interest rates, raising a specter of slow or no economic growth and of massive layoffs. The program was applied in the 1980s, when macroeconomic imbalances, government profligacy and hyperinflation were behind the Latin American debt crisis. The prescription was little more than the same old medicine for a new illness, and thus ill-suited as a cure for the troubled Southeast Asian economies in general and for the Korean economy in particular.<sup>3</sup>

Unlike the currency crises in Thailand, Indonesia and Malaysia, the currency crisis in Korea spread irrationally from the other currency crises, which were compounded by the so-called “reverse free rider” behavior of foreign lenders. In a sense, therefore, the 1997-98 Asian financial crisis can be characterized as an “international liquidity crisis as much as a fundamental economic crisis” (Y.S. Park 1999, p. 27). What Korea needed was the rollover of their short-term loans. The IMF could have taken initiatives in convincing the international financial community to provide coordinated action by creditor banks in the G-7 countries to restructure Korea’s short-term debts, lengthening their maturity and providing temporary credits to help meet the interest obligations (Felstein 1998).

Others charge that the IMF “bailout” programs for the Asian countries involve tax money being used to “bail out”—rather than “bail in”—multinational banks and financial institutions in the North (read, developed countries or the G-7). These banks and institutions had extended loans “recklessly” without careful risk analysis to private banks and business firms in emerging markets. They were equally responsible for the Asian financial crisis—a crisis of “international liquidity” in this era of globalization. What the IMF was doing in East Asia was a replay of

the debt crisis of the 1980s in Latin America, when the Fund recycled public funds through indebted governments in Latin America to the coffers of the heavily exposed banks and financial institutions in the North.

Other critics of the IMF contend that the Fund's approach to Asia was simply a "continuation of its policies since the early 1980s, when, together with the World Bank, it imposed programs of 'structural adjustment' on over 70 Third World developing countries." The indebted countries in Latin America and Africa were allowed to use the IMF-released funds to service their debts only on condition that they accept programs of radical liberalization, deregulation, and privatization (Bello 1999b & 1999c).

In its rescue package for Korea, the IMF demanded a fundamental overhaul of the Korean economy. There is no denying that many of the structural reforms that the IMF included in its program for Korea (in exchange for the \$57 billion bailout) would improve the long-term performance of the Korean economy. Failure to undertake some of the badly needed structural reforms earlier was, no doubt, one of the root causes of the Korea's financial crisis. However, "a nation's desperate need for short-term financial help does not give the IMF the moral right to substitute its technical judgments for the outcomes of the nation's political process" (Felstein 1998, p. 27). The structural reforms "demanded" by the IMF were those well recognized by Korea, but they were not needed for Korea to gain access to capital markets. The legitimate political institutions of the country, not an international agency such as the IMF, should determine the nation's economic structure and the nature of its institutions (Felstein 1998).<sup>4</sup>

#### **In Search for Regional Monetary Cooperation and Stability**

The severity and contagiousness of the Asian financial crisis underscored the need for reforming the international financial system. Numerous proposals have been put forward. The G-7-led reform, however, ignores the problems of the supply side of international finance, and concentrates its efforts on reforming the financial and corporate sectors of developing countries. Again, as in the case of the Mexican peso crisis of 1994-95, the appetite for radical reform of the international financial system has receded considerably in the wake of economic recovery of the crisis-hit countries. From the perspective of developing countries, therefore, it appears that they will remain vulnerable to future financial crises even if they faithfully carry out the kinds of structural reform recommended by the IMF and the World Bank.

Given this reality, developing countries may have no choice but to develop their own defense mechanisms against recurring speculative attacks on their currencies in this era of volatile capital movements. Some of these defensive mechanisms may include pooling of foreign exchange reserves to be used for emergency purposes, establishing a system of capital controls, and adopting an exchange rate regime that lies between the two extremes of free floating and fixed, e.g., an intermediate regime such as "BBC" as recommended by Williamson (1996, 1999a, 2000c). Developing and implementing such defensive mechanisms would require close monetary cooperation and integration among countries in the region, whose economies are closely linked and are susceptible to similar external shocks.

In this respect, the case of EMU holds many lessons for regional financial arrangements and monetary cooperation. It has been successful in maintaining stability in intra-regional exchange rates, containing financial contagion, and coping with fluctuations in exchange rate vis-a-vis the dollar and the yen. There are many important questions, however, that must be answered beforehand such as: (1) to what extent such arrangements can be replicated by LDCs as a means of collective defense against systematic instability emanating from global financial markets; (2) whether it would be feasible for LDCs to establish regional financial arrangements among themselves without involving G-3 countries, and to follow a path similar to that pursued by Europe, that is, moving from a regionally secured exchange rate band to a currency union; or (3) whether they could move directly to currency union by adopting a regional currency (UNCTAD 2001, pp. 121-124).

In the wake of the Asian financial crisis, interest in regional financial arrangements and monetary cooperation in the developing world has increased rapidly. As mentioned earlier, this increased attention on regional solutions has been attributable to little progress so far made in the reform of the international financial architecture, and especially to the resistance of the G-7 countries to "genuine reform" of the system (Park & Wang 2000). For instance, the G-7 finance ministers at their meeting in Cologne in June 1999, explicitly ruled out the creation of any new institutions and made it clear that their aim would be to work with the existing system, strengthening it when necessary. The trouble with such an approach only involving some incremental changes is that it would not safeguard financial stability in the EMEs and LDCs. As long as the structural problems on the supply side of

international capital flows are not addressed, the EMEs and LDCs will remain as vulnerable to future speculative attacks on their currencies and financial crises as they were before the Asian crisis. Instead of waiting for the G-7 to create a new financial architecture, which now appears highly unlikely, it would be in the interest of the EMEs and LDCs to find ways of developing an alternative safeguarding scheme in the form of regional financial arrangements and monetary cooperation. Such an alternative scheme is, of course, aimed at supplementing and complementing, but not replacing, the existing international financial architecture.

When the Asian 5 were attacked by massive capital outflows and were short of international liquidity, they could not depend on the IMF or other international institutions as a lender of last resort. Liquidity is key to self-protection: A country with substantial international liquidity is more likely to defend itself better in the face of a currency attack (as in the case of Taiwan, Hong Kong, Singapore, and China as compared to the Asian 5 during the Asian financial crisis). The Asian crisis has shown that no matter how much liquidity a country holds, the amount could easily be dwarfed by the sheer magnitude of international capital movements that can be generated nowadays in the global financial markets, and that a country alone cannot protect itself against the attack of such capital flows.<sup>5</sup> Given this reality, self-protection of the EMEs and LDCs can be done better only through collective action via regional financial arrangements and monetary integration.

For these reasons, there has been increased discussion and support in East Asia for establishing a regional defensive mechanism in the form of financial cooperative arrangements. The proposals for such arrangements include the Asian Monetary Fund (AMF) of 1997, the Asia Pacific Monetary Fund (APMF) of 1998, and the Chiang Mai Initiative in May of 2000.

#### **The Asian Monetary Fund**

In the middle of the Asian financial crisis (at the 1997 annual meetings of the IMF and the World Bank), a proposal was made by Japan to establish an Asian Monetary Fund (AMF) with a US\$100 billion funding and Japan as the main contributor. The AMF should operate at the regional level to help maintain monetary stability in the region. The ASEAN members and other Asian countries welcomed the proposal. The proposal, however, was immediately and effectively blocked by the U.S., which favored the exclusive control by the IMF over emergency funds, and feared that such regional institution could undermine the U.S. leadership role in the region.<sup>6</sup> Despite the defeat of the proposal, the idea of an AMF did not die. In 1998, Japan launched a plan drawn up by its finance minister, Kiichi Miyazawa. The Miyazawa plan involved a US\$30 billion financial assistance scheme to help overcome the Asian currency crisis. This time, the Japanese initiative was even supported by the IMF, and the U.S. did not attempt to block the proposal. But the amount provided by the plan was too small and was too late to be used as emergency funds in a timely manner.

This idea of a regional financial arrangement in East Asia was modified by Bergsten (1998) to include the United States and several other Pacific Asian countries to be called an “Asia Pacific Monetary Fund” (APMF) instead of an AMF. According to Bergsten (1998), there are at least three reasons why such an expanded regional scheme is necessary: One, at the present time there are no Asian countries that could effectively lead the regional efforts towards financial cooperation and integration. Few Asian countries will accept Japan-dominated/led arrangement at the present time, and China is not yet ready for such a role. Two, an Asian grouping, exclusive of non-Asian countries, would have the effect of dividing rather than uniting the two sides of the Pacific. Three, the United States as a member of the Pacific community, could play a decisive role in making an Asia Pacific Monetary Fund work, thereby contributing greatly to the regional monetary stability.

#### **The Chiang Mai Initiative**

In May 2000, an initiative was launched in Chiang Mai, Thailand, to discuss currency swap and repurchase arrangements among members of the ASEAN and three East Asian countries—China, Japan and the Republic of Korea, the so-called “ASEAN + 3.” The agreement is widely perceived as a major step toward strengthening financial cooperation among the East and Southeast Asian countries. This so-called “Chiang Mai Initiative” is aimed at “building networks for multi-layered financial cooperation to match the growing economic interdependence of Asian countries and the consequently greater risk that financial shocks could lead to regional contagion” (UNCTAD 2000, p. 125, Box 5.2). The Initiative envisages the use of the ASEAN+3 framework to improve exchange of information on capital flows and to build a regional economic and financial monitoring system. At the core of the Initiative is a financing arrangement among the ASEAN+3 countries to provide intra-

regional support against currency runs. The arrangement is intended to supplement, but not replace, existing international facilities.

For self-protection purposes, many EMEs and LDCs, especially those hit hard by the Asian crisis, are taking measures to build up foreign exchange reserves beyond the level that has been regarded as adequate in terms of their import requirements. Holding excessively large foreign exchange reserves, however, is costly and represents a misallocation of resources. A regional financial arrangement could create new credit facilities by pooling a certain percentage of member countries' reserve holdings. An individual member country would not have to hold as much reserves as it would otherwise if it can borrow from the credit facility of the regional monetary fund.<sup>7</sup> These regional financial arrangements could be structured and managed to be complementary to the role of the existing international institutions such as the IMF.

Regional financial arrangements and monetary cooperation may also involve establishing regional currencies, as opposed to the adoption of official dollarization as adopted lately by Ecuador and El Salvador in Latin America. If established and sustained, regional currencies among EMEs and LDCs could bring considerable benefits, similar to those expected from the introduction of the euro. They can reduce transaction costs of doing business within a region and eliminate exchange rate risks associated with intra-regional trade and investment. Few believe that the EU's experience with regional financial arrangements and monetary cooperation can easily be replicated in the other regions of the world. But the EMEs and LDCs must begin seriously to examine the possibilities and desirability of closer financial cooperation and coordination in conducting exchange rate policies, establishing credit facilities, creating a regional currency unit, and eventually a common currency. From the perspective of Pacific Asia, an Asian Monetary Fund or the Chiang Mai Initiative could serve well as a forum for examining and discussing these long-term, but crucial issues.

## **Concluding Remarks**

The Asian countries (and all other non-Asian countries as well) have been simply too slow to fully appreciate the new challenges and risks posed by the rapidly globalizing financial markets. Consequently, they have been too slow in formulating appropriate responses and policies. Globalization has increased the speed and magnitude of the market reactions. It has magnified the costs of bad, inconsistent policies and weak, inefficient institutions. In today's global environment, the forces of globalization are simply beyond one's control. In short, Pacific Asian countries have simply fell victim to globalization.

Globalization, if properly managed, may help push some developing countries into modernity and affluence. But as the Asian financial crisis suggests, embracing global financial markets can also be highly dangerous and costly. The severity and contagiousness of the Asian financial crisis underscored the need for reforming the international financial system. Numerous proposals have been put forward. The G-7-led reform, however, ignores the problems of the supply side of international finance, and concentrates its efforts on reforming the financial and corporate sectors of developing countries. Again, as in the case of the Mexican peso crisis of 1994-95, the appetite for radical reform of the international financial system has receded considerably in the wake of economic recovery of the crisis-hit countries. From the perspective of developing countries, therefore, it appears that they will remain vulnerable to future financial crises even if they faithfully carry out the kinds of structural reform recommended by the IMF and the World Bank.

Given this reality, developing countries may have no choice but to develop their own defense mechanism by establishing a system of capital controls and by adopting an exchange rate regime that lies somewhere between the two extremes --free floating and fixed. In this respect, the EU experience may provide the EMEs and LDCs with useful lessons about the institutional arrangements for the maintenance and adjustments of intra-regional currency bands, intervention mechanisms, and various facilities designed to provide payments support for member countries in the region. An attempt to apply the EU experience for arrangements for developing countries may pose all sorts of difficulties, however, especially in the area of choosing the exchange rate regime to be pursued vis-à-vis reserve currencies and access to international liquidity. Thus, in effectively facilitating regional financial arrangements, the involvement of a major reserve-currency country may be required. In this respect, the Asia-Pacific Monetary Fund

as suggested by Bergsten and the recent Chiang Mai Initiative adopted by ASEAN+3 represent an important first step towards a difficult path to closer regional monetary integration and, hopefully, to a more stable global financial system.

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Contact the Author for a list of references

## End Notes

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3. Some of the harshest critiques came from Martin Felstein, "Refocusing the IMF," *Foreign Affairs*, 77 (2), March/April 1998, pp. 66-79; Joseph Stiglitz, "What Caused Asia's Crash?: Bad Private-Sector Decisions," *Wall Street Journal*, February 4, 1998; Jeffrey D. Sachs, "Restoring the Asian Miracle," *Asian Wall Street Journal*, February 2, 1998.
4. But, then, one has to recognize that significant institutional changes that have taken place in Korea in recent years would not have been enacted in the absence of the painful and (to many Koreans) "humiliating" implementation of the IMF regime.
5. No country is immune to currency crisis in a world of capital mobility. No country would be safe in the face of a massive international capital outflow such as one that took place in Southeast and East Asia in 1997, which precipitated the Asian financial crisis. As discussed earlier in the paper, there was a record capital inflow of \$93 billion into Thailand, Malaysia, Indonesia, the Philippines and South Korea. Then there was a net outflow of capital of \$12 billion in the following year 1997. This greatest reversal of private capital flows ever recorded in the world economy involved \$105 billion, the amount equivalent to 11 percent of the combined GDP of these five Asian countries. In terms of the U.S. economy, this would be equivalent to a change in capital flows of over \$940 billion, which would no doubt wreak havoc on the U.S. financial markets!
6. During the annual meeting of the IMF and the World Bank in Hong Kong, Japan's vice finance minister of international affairs, Eisuke Sakakibara, was summoning a number of East Asian officials to discuss the AMF proposal without informing the Americans. When the U.S. deputy secretary of the Treasury, Larry Summers, found this out, he immediately left his own meeting and went into their room, sat down by their table and said, "Now, where were we?" The cost of blocking the AMF proposal was high. The contagion from the Thai meltdown might have significantly be reduced if the AMF agreement had been in place by October 1997. The foreign investors' knowledge of a US\$ 100 billion defense line to be used on short notice could have calmed down the market (Nordhaug 2000, pp. 5-6).
7. The group of thirteen countries in the ASEAN+3 has a combined total foreign exchange reserves estimated at more than US\$ 800 billion. Depending on how these reserves are pooled together and managed, a mere ten percent of the total amount will be sufficient to provide a first and second line of defense against any speculative attack. If,

on the eve of the Thai meltdown, the East Asian countries had a regional credit facility in place to be able to supply short-term liquidity to Thailand, the world could have been spared the Asian financial crisis (Park & Wang 2000).

# **Optimal Choices for Risk Management: The Economic Value of Institutional Reform in Globalizing Economies**

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## **Abstract**

Increasing interdependence in the global economy entails increasing levels of risk in economic decisions. For economies engaged in global economic integration, success depends to no small degree on the effective management of risk through institutional innovation. In this paper, we apply panel regression analysis to a sample of 103 countries for the 1980-2002 period to examine the determinants of aggregate country risk, and in turn, to estimate the economic value of changes in those determinants on a country's level of per capita income. We provide estimates for the economic value of improving a society's degree of property rights, judicial independence, civil liberties, and political rights on the underlying rate of growth. Our findings are consistent with studies on corruption, economic freedom, and democracy and provide a concrete basis for assigning weights to the value of economic reform.

## **Introduction**

Increasing interdependence through globalization provides both a challenge and an opportunity. For developing and emerging market economies, globalization offers the prospect of increases in real per capita income through expanded international trade and investment. At the same time, successful integration in the global economy also poses increased levels of risk. These risks reflect changes in political, economic, financial, and environmental conditions. For many developing and emerging market economies, institutional innovation that can manage these risks is often neglected in the process of reform, with the result that the benefits of globalization are either weakened or negated, thus leading some to call for a return to a more autarkic model of development. A retreat to autarky is likely to increase even further the gaps in per capita income that now exist<sup>1</sup>. Economic reform is thus essential, but the institutional choices that need to be addressed must first and foremost take into consideration the impact of risk. In this paper, we provide a model for the economic assessment of country-level risk, and from which we provide estimates of the economic value of institutional reform.

## **Risk Management Innovations**

Risk exists in the presence of incomplete markets. To the extent that markets are incomplete, risk shows up in four broad institutional settings: financial and economic markets, political instability, as well as in environmental quality. While important innovations have taken place to identify sources of risk and to derive pricing instruments in financial markets, in other areas, risk management tools have been less well developed. As a result, risk management choices involve some combination of market forces and public sector intervention.

To the extent that market institutions lack instruments for the pricing of risk, government intervention will be greater. Historically this has shown up in public sector intervention to address risks in health (Goldstein and Goldstein, 2002), but also in terms of the provision of social security and other forms of social insurance (Kotlikoff, 1992; Kingson and Schulz, 1997)<sup>2</sup>.

Of the four major sources of risk, some of the most important advances in measurement and in developing risk management instruments have taken place in the field of finance. Bernstein (1996) provides a detailed discussion of the evolution of risk measurement with particular emphasis on applications to the field of finance. Advances include not just the existence of financial markets for pricing various types of insurance, but also for

developing asset specific risk management tools, notably the market for derivatives, even though they may not provide efficient signals in all cases (Shleifer, 2000; Lo and MacKinlay, 1988).

While financial contracts generally contain various insurance default options, innovations in the field of finance have helped to make the task of pricing those defaults much more precise. Innovations include optimal portfolio management tools (Markowitz, 1952), along with the development of derivative contracts. The latter include in particular the stock option pricing models of Black and Scholes (1973), and Merton (1973), and which have since been extended to a much broader range of tradable assets (Malcolm, Sharma & Tanega, 1999), including interest rate, foreign exchange, and primary commodity assets. These innovations have been further extended to include value at risk and risk metric models (Jorion, 1997; J.P. Morgan, 1995).

At the macro level, risk management tools include measures that address interest rate stability, inflation, and balance of payments dynamics, including the pricing of sovereign debt instruments and country insurance contracts (Cordella and Yeyati, 2004; Canales-Kriljenko and Habermeier, 2004; Das, Quintyn, and Chenard, 2004; Lee, 2004; Schinasi, 2004; Shiller, 2003). However, while tools for pricing risk exist at the micro and macro levels for financial assets, they do not operate in all markets and do not cover all forms of risk, especially in developing and emerging country markets<sup>3</sup>. The result is that the problem of incomplete markets is far from resolved<sup>4</sup>.

Globalization is the process of opening up both domestic product and factor markets, The case for its role in raising per capita incomes is the standard principle of comparative advantage first stated by David Ricardo (1817), and since restated in any number of studies (Bhagwati, 2004; Easterly, 2002, 2001; Tokarick, 2004). What makes globalization problematic is that when factor market mobility exists and where risk is present, it is not obvious that expanded globalization will raise per capita incomes at expected rates of growth. Financial crises such as the one that severely affected a number of East Asian economies in 1997 have cause some to question the benefits of globalization. This has raised critiques of standard models of globalization (Stiglitz, 2002; Samuelson 2004; Mattoo and Subramanian, 2004). In turn, this debate has also turned on the relative importance of international aid versus private capital market flows, particularly to developing and emerging country markets (Sachs, 2004; Hansen and Tarp, 2001; Guillaumont and Chauvet, 2001; Burnside and Dollar, 2000)

The literature on growth and globalization has been further expanded to address the role of democracy, particularly its effects on controlling for corruption (Huther and Shah, 2000; Jones, et.al. 2000; Knack, 2000). Barro (1999, 1998, 1996) finds that while democracy can be important, it is not as critical as other determinants such as an efficient pricing regime. This finding has been questioned for some areas (Boko, 2002). It leaves open the question of whether democracy is a necessary pre-condition for economic development or whether other variables such as the level of economic freedom are more important<sup>5</sup>.

In our view, much of the debate on globalization through international aid and democracy misses the important role that institutions play in the management of risk (Arestis and Basu, 2003; Obstfeld, 1994; Shaw, 1973, McKinnon, 1973). In placing emphasis on the measurement of risk and the choice of tools for its management, globalization can make important contributions to economic growth and development. However, for globalization to succeed, institutional innovation for effective governance is a necessary pre-requisite (Moss, 2002). This is particularly true for developing and newly emerging market economies (Loukoianova and Unigovskaya, 2004). In this context, the role of institutional economics (Williamson, 2000, 1996) is central even though governance has only recently become a focus of globalization mechanisms (Gradstein, 2003; Kaufmann et. al. 2002, 1999a, 1999b; North, 1990; Olsen, 1982).

## **An Institutional Model of Risk**

Risk generally is measured in terms of some level of volatility of an asset<sup>6</sup>. Yet if markets are substantially incomplete, capturing the underlying level of risk will be imperfect at best, even if we choose to model such environments under uncertainty, or subjective risk<sup>7</sup>. What is clear is that in the presence of such incomplete markets, risk has a negative effect on the level of income, since it adds to the transactions costs of production and exchange.

At the macroeconomic level, some efforts have been undertaken to general indices of financial risk (IMF, 2004; Gasha and Morales, 2004; Worrell, 2004; Gilson, 2004). Many of the indices have been developed to determine the level of financial instability of an economy, particularly in response to such episodes as the East Asia financial crisis of 1997, and prior episodes in Central and Latin America, notably Mexico in 1984, and Argentina in 1982. Yet these measures have not yet been capable of anticipating such financial crises, perhaps because the sources of risk go beyond what may be more directly observable in financial markets.

Given the importance of risk to economic growth, and given the absence of suitable risk instruments that can capture its various dimensions, we pose the question of whether one can utilize a risk proxy to explain differential levels of per capita income. We propose that one can do so through an index that incorporates the influence of financial, economic, political, and environmental factors.

The index we choose for our analysis is aggregate country risk. The appeal of such an instrument is that it does seek to incorporate various sources of risk that are not likely to be reflected in existing financial measures. Investors operating in a global economic environment often seek to assess whether the expected rate of return reflects the major sources of risk, and thus whether a given risk premium is adequate to compensate for perceived levels of risk. In economies with sufficient financial intermediation and institutional development, one can look at sovereign debt ratings, reports on political and economic stability, as well as on the level of environmental quality to make judgments. However, as we have noted, in many instances, such measures are not readily available, and proxy measures must be used. Our choice of the ICRG aggregate country risk index is based on the consistency of aggregation across sectors, countries, and time, which is perhaps also the reason why it is included among the World Bank's development indicator series<sup>8</sup>.

This ICRG index is not a traded asset, but one that could be used in framing derivative contracts for purposes of risk management choices<sup>9</sup>. However, it has the advantage of including assessments of political, financial, economic, and environmental risk. In our view, it is likely to be more representative of the various sources of risk than a macroeconomic volatility index, for example.

We proceed with the specification of an institutional model of risk in several steps. First, we conduct a simple test to determine if our ICRG index explains differences in levels of per capita income across regions and across time. To do so, we use panel regression estimates for a sample of 103 countries for 1980-2002 in two simple initial models of economic growth.

Panel regression models take the following general form:

$$Y_{it} = \alpha + \beta X_{it} + \varepsilon_{it}, \text{ for } i = 1, 2, \dots, N, \text{ and } t = 1, 2, \dots, T, \quad (1.)$$

where N is the number of cross-section units and T is the number of time periods.

Because there often are aggregation problems within panels, we do not use a pooled regression model. Instead, we rely either on an ordinary panel regression estimate, or on a fixed effects panel regression model<sup>10</sup>. In a fixed effects model, dummy variables enable the intercept term to vary over time and over cross-section units. For a fixed effects model, we write:

$$Y_{it} = \alpha + \beta X_{it} + \gamma_2 W_{2t} + \gamma_3 W_{3t} + \dots + \gamma_n W_{nt} + \delta_2 Z_{i2} + \delta_3 Z_{i3} + \dots + \delta_T Z_{iT} + \varepsilon_{it}, \quad (2.)$$

where:

$$W_{it} = \begin{cases} 1 & \text{for the } i\text{th individual, } i = 2, \dots, N \\ 0 & \text{otherwise} \end{cases}$$

$$Z_{it} = \begin{cases} 1 & \text{for the } i\text{th time period, } i = 2, \dots, T \\ 0 & \text{otherwise} \end{cases}$$

First, for a given panel, we write the level of per capita GDP as a function of two key variables, namely, a country's rate of national saving and its level of trade dependency:

$$PPPRPCGDP = f(\text{GNSGDP}, \text{TRDEP}), \text{ where:} \quad (3.)$$

PPPRPCGDP is the purchasing power parity estimate of real per capita Gross Domestic Product.

We now factor in the ICRG revised aggregate country index to determine the importance of risk in explaining the level of per capita GDP<sup>11</sup>:

$$PPPRPCGDP = f(\text{GNSGDP}, \text{TRDEP}, \text{RCCRISK}). \quad (4.)$$

Results for these two initial equations are given in tables 1 and 2 for a global sample, and sub-samples for Africa, Asia, East Europe, West Europe, the Middle East and North Africa, and Central and Latin America<sup>12</sup>. As can be seen, when risk is taken explicitly into account, it works adversely on the level of per capita real GDP. Given the significance of risk, we choose to include the ICRG index as a determinant of real per capita income.

TABLE 1: BASIC GROWTH REGRESSIONS

PPPRPCGDP	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	<b>5773.6840</b>	<b>471.3547</b>	<b>2289.3310</b>	<b>3384.6140</b>	<b>11925.0700</b>	<b>3208.7640</b>	<b>4352.1520</b>
GNSGDP	<b>5.6279</b> (3.5294)	<b>55.6112</b> (17.2381)	<b>27.3139</b> (4.1156)	<b>126.8943</b> (11.3665)	<b>220.4064</b> (4.7581)	<b>44.2231</b> (4.4849)	<b>7.6255</b> (3.2407)
TRDEP	<b>19.6851</b> (10.0882)	<b>6.3335</b> (5.4097)	<b>36.3898</b> (16.6977)	<b>20.3131</b> (7.3372)	<b>38.9697</b> (6.8167)	<b>1.1199</b> (0.3330)	<b>5.9010</b> (4.4318)
Adj. R-Squared	0.9656	0.5738	0.8983	0.6891	0.8254	0.7428	0.9793
F-statistic	640.4054	464.7979	188.9702	280.2423	9222.6464	398.2049	1024.92
Granger 2-lag test							
GNSGDP	9.7873	21.3251	9.5331	0.0593	4.0557	3.1841	5.0353
Pr	0.0000	0.0000	0.0001	0.9425	0.0181	0.0431	0.0070
TRDEP	33.7893	26.0789	1.8583	10.7656	15.6435	5.1298	1.3387
Pr	0.0000	0.0000	0.1579	0.0000	0.0000	0.0066	0.2635

TABLE 2: RISK-ADJUSTED BASIC GROWTH REGRESSION

PPPRPCGDP	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	<b>6403.1290</b>	<b>1834.5860</b>	<b>2968.1430</b>	<b>7995.5250</b>	<b>20109.7900</b>	<b>7874.4400</b>	<b>5401.2360</b>
GNSGDP	<b>3.0954</b> (1.1594)	<b>53.2853</b> (15.7805)	<b>21.0913</b> (2.7260)	<b>114.6346</b> (9.9965)	<b>160.7002</b> (4.2103)	<b>16.5584</b> (2.8287)	<b>3.7217</b> (1.1997)
TRDEP	<b>18.4644</b> (9.0286)	<b>6.0435</b> (4.6299)	<b>34.8320</b> (16.3602)	<b>8.0662</b> (2.6080)	<b>33.7641</b> (7.1136)	<b>3.0873</b> (0.9866)	<b>0.4981</b> (0.3296)
RCCRISK	<b>-13.5974</b> (12.4976)	<b>-28.7966</b> (8.5593)	<b>-11.4117</b> (3.6748)	<b>-99.9562</b> (7.8227)	<b>-387.9944</b> (18.0232)	<b>-98.4798</b> (10.9969)	<b>-16.6096</b> (10.0316)
Adj. R-Squared	0.9632	0.5534	0.9142	0.7456	0.8547	0.7689	0.9769
F-statistic	591.1167	285.5705	212.8083	247.1279	765.4428	37.60475	870.6361
Granger 2-lag test							
GNSGDP	9.7873	21.3251	9.5331	0.0593	4.0557	3.1841	5.0353
Pr	0.0000	0.0000	0.0001	0.9425	0.0181	0.0431	0.0070
TRDEP	33.7893	26.0789	1.8583	10.7656	15.6435	5.1298	1.3388
Pr	0.0000	0.0000	0.1579	0.0000	0.0000	0.0066	0.2635
RCCRISK	3.4225	8.7110	7.8114	3.8554	1.6913	0.1265	10.8720
Pr	0.0328	0.0002	0.0005	0.0226	0.1858	0.8813	0.0000

Given the significance of aggregate country risk, we now develop a model of its determinants. Instead of treating aggregate country risk as a direct determinant of per capita GDP, we now specify a model of the determinants of a country's rate of national saving and its level of trade dependency. We further develop two separate sub-models, and then incorporate the estimated level of risk on a sample's rate of national savings and its level of trade dependency. This framework will permit us to examine the economic value of institutions that determine a given level of risk through the estimated effects on the level of per capita income that operate on a country's rate of national saving and its level of trade dependency.

Using Granger causality tests, we construct a hierarchical model of the determinants of growth. Instead of savings and trade dependency alone, we look at separate determinants for these two variables. In this model, we find that savings depends on a country's rate of market capitalization, the level of international aid, as well as on the level of aggregate country risk. In turn, we find that the level of trade dependency depends on the foreign direct investment ratio, as well as on the level of international aid and aggregate country risk. In turn, we find that a country's level of aggregate country risk is a function of the underlying level of economic freedom and democracy, and that these determinants depend in turn on the level of property rights, judicial independence, civil liberties, and political rights. Property rights, judicial independence, civil liberties, and political rights thus become the institutional variables that drive the level of aggregate country risk.

Fig. 1 illustrates the structure of the model, and includes the directional sign that each determinant has on the respective variable for the global sample. It also lists the Granger 2-lag causality F statistic for the global sample, along with the corresponding probability value in parentheses.

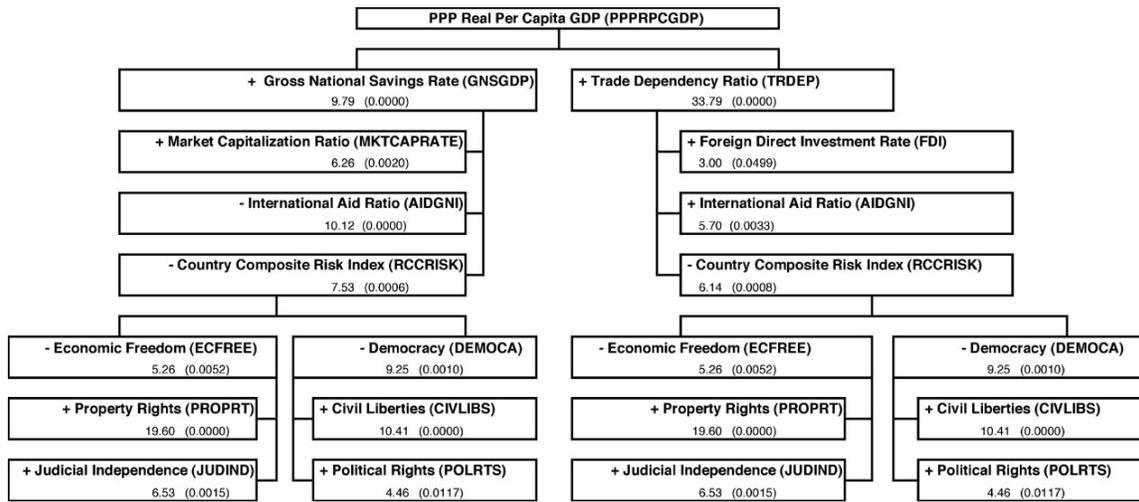


FIG. 1

From the structure of Table 1, we can now write a set of nested panel regression equations as:

$$ECFREE = f(\text{PROPRT}, \text{JUDIND}) \quad (5.)$$

$$\text{DEMOCA} = f(\text{CIVLIBS}, \text{POLRTS}) \quad (6.)$$

$$\text{RCCRISK} = f(\text{ECFREE}^*, \text{DEMOCA}^*) \quad (7.)$$

$$\text{GNSGDP} = f(\text{MKTCAPRATE}, \text{AIDGNI}, \text{RCCRISK}^*) \quad (8.)$$

$$\text{TRDEP} = f(\text{FDIGDP}, \text{AIDGNI}, \text{RCCRISK}^*) \quad (9.)$$

$$\text{PPRPGDP} = f(\text{GNSGDP}^*, \text{TRDEP}^*), \quad (10.)$$

where asterisks denote estimated values of variables that are then used in the hierarchical model.

One useful feature of the model is that it leaves open the relative separate effects of international aid on a country's national saving rate and its level of trade dependency. In some cases, international aid may work adversely on a country's saving rate while increasing its level of trade dependency, effects which we would like to estimate separately to determine the net effects. Because international aid serves a variety of objectives, we choose to include it in our model to link it to institutional factors that influence the level of aggregate country risk.

Data sources for the variables used in these regressions are listed in Appendix 1. In general, data on PPRPGDP, GNSGDP, TRDEP, MKTCAPRATE, FDIGDP, and AIDGNI are taken directly from the World Bank sources. Beyond these sources, our index of economic freedom (ECFREE) is based on estimates reported in *The Index of Economic Freedom*<sup>13</sup>. We use the measures for property rights (PROPRT) and judicial independence (JUDIND) from the broader index as determinants of the level of economic freedom.

Measuring democracy is a more complicated question. Although some work exists on tracking the frequency and fairness of elections across countries (Gurr, et.al., 2000), we rely on a simpler measure, namely estimates of the degree of civil liberties (CIVLIBS) and political rights (POLRTS), that are reported by Freedom House<sup>14</sup>. Our measure is an index of democracy based on the product of a country's index of civil liberties and its index of political rights<sup>15</sup>. The resulting democracy index (DEMOCA) thus does not attempt to measure the frequency or accuracy of elections but is designed to serve as a proxy for their operation.

Results of the panel regression estimates for equations 3 through 8 are given in the following tables.

TABLE 3: DETERMINANTS OF ECONOMIC FREEDOM

ECFREE	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	<b>0.2131</b>	<b>0.3839</b>	<b>1.6556</b>	<b>0.4844</b>	<b>1.4838</b>	<b>-0.5001</b>	<b>1.3392</b>
PROPRT	<b>0.5239</b>	<b>0.3612</b>	<b>0.0689</b>	<b>0.1941</b>	<b>0.1916</b>	<b>0.7378</b>	<b>0.2351</b>
	(88.5494)	(23.7811)	(2.0321)	(5.8043)	(2.0388)	(2992.8550)	(15.2679)
JUDIND	<b>0.0114</b>	<b>0.0433</b>	<b>0.0075</b>	<b>0.1864</b>	<b>0.0485</b>	<b>0.0096</b>	<b>0.0140</b>
	(3.6604)	(5.0350)	(0.6603)	(6.9164)	(4.3503)	(26.8235)	(2.0253)
Adj. R-Squared	0.9940	0.9070	0.6957	0.9090	0.9986	1.0000	0.9763
F-statistic	196128.2	3361.421	341.6415	1258.97	6747.893	44984575	8036.637
Granger 2-lag test							
PROPRT	19.6025	3.7657	9.9859	0.4972	6.7653	0.8917	3.5643
Pr	0.0000	0.0237	0.0000	0.6089	0.0013	0.4113	0.0293
JUDIND	6.5283	0.1752	2.6212	0.7933	1.6128	0.1026	2.8387
Pr	0.0015	0.8393	0.0746	0.4536	0.2008	0.9025	0.0598

TABLE 4: DETERMINANTS OF DEMOCRACY

DEMOCA	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	<b>-14.7759</b>	<b>-8.6486</b>	<b>-15.1165</b>	<b>-8.6752</b>	<b>-41.9925</b>	<b>-6.4293</b>	<b>-21.5076</b>
CIVLIBS	<b>4.8145</b>	<b>2.4347</b>	<b>4.9891</b>	<b>1.7528</b>	<b>6.9999</b>	<b>2.2042</b>	<b>5.6048</b>
	(62.0770)	(29.7386)	(28.3810)	(9.3322)	(41524.2600)	(107.2016)	(50.9047)
POLRTS	<b>3.7724</b>	<b>4.0716</b>	<b>3.2460</b>	<b>5.5547</b>	<b>5.9989</b>	<b>3.1759</b>	<b>3.9673</b>
	(61.5396)	(60.6153)	(26.1196)	(41.1315)	(3607.3620)	(120.1225)	(47.6880)
Adj. R-Squared	0.9814	0.9660	0.9821	0.9877	1.0000	0.9984	0.9888
F-statistic	62308.94	9777.094	8172.627	10085.83	1040000000	86872.22	17198.48
Granger 2-lag test							
CIVLIBS	10.4132	4.5844	4.2917	4.1662	3.2166	0.0055	1.3497
Pr	0.0000	0.0106	0.0146	0.0167	0.0413	0.9946	0.2607
POLRTS	4.4605	1.4610	1.0376	1.8908	2.8779	4.9370	9.4579
Pr	0.0117	0.2328	0.3557	0.1533	0.0576	0.0079	0.0001

(t-statistics are reported in parentheses in all regression estimates for all tables.)

Democracy depends directly in all regressions on higher levels of civil liberties and political rights at statistically significant levels. Differences in coefficients reflect differences in baseline values of the underlying level of democracy. While regression estimates are statistically significant, we cannot reject the null of reverse causality in some cases. Our Granger null tests for civil liberties cannot be rejected in the case of the Middle East and North Africa sample and in the case of the Central and Latin America sample. In addition, we cannot reject the reverse causality null for political rights in the cases of Africa, Asia, and East Europe. We thus treat our regional findings as conditional even though the maintained hypothesis holds true for the global sample.

In terms of economic freedom, we find that the Granger null tests can not reject reverse causality for property rights in East Europe, and the Middle East and North Africa sample. In terms of judicial independence, we cannot reject the null in terms of judicial independence for the Africa, East Europe, West Europe, and Middle East and North Africa sample, even though the maintained hypothesis holds true for the Global and other samples.

TABLE 5: DETERMINANTS OF COUNTRY COMPOSITE RISK

RCCRISK	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	<b>71.1234</b>	<b>63.1218</b>	<b>179.1100</b>	<b>53.2491</b>	<b>68.7392</b>	<b>47.8372</b>	<b>74.0592</b>
ECFREE*	<b>-15.5668</b>	<b>-8.7776</b>	<b>-74.1102</b>	<b>-9.7693</b>	<b>-12.0128</b>	<b>-6.0976</b>	<b>-12.3417</b>
	(45.2652)	(7.1406)	(16.9932)	(21.6962)	(51.8279)	(10.2397)	(3.2317)
DEMOCA*	<b>-0.1992</b>	<b>-0.3226</b>	<b>-0.0529</b>	<b>-0.1169</b>	<b>-0.3975</b>	<b>0.4223</b>	<b>-0.2324</b>
	(15.9724)	(10.7414)	(2.8673)	(18.5001)	(29.8371)	(4.6837)	(7.4849)
Adj. R-Squared	0.8474	0.8619	0.9540	0.9954	0.9888	0.9377	0.9470
F-statistic	6577.887	2150.546	442.6509	27040.94	15447.45	173.3827	1785.1245
Granger 2-lag test							
ECFREE	9.6882	1.3535	1.1914	3.1867	2.2151	1.9688	3.6263
Pr	0.0000	0.2591	0.3054	0.0432	0.1107	0.1418	0.0276
DEMOCA	8.7296	1.1429	0.1702	5.5335	0.6524	1.8033	1.7265
Pr	0.0002	0.3196	0.8436	0.0045	0.5214	0.1669	0.1794

(\*Asteriks denote estimated values used in the given panel regression estimates).

Our nested panel estimates of country composite risk generally uphold the maintained hypothesis of an inverse relationship between economic freedom and risk and between democracy and risk. The only exception is in the Middle East and North Africa sample, where there is a slight positive effect of democracy on risk. As to our

Granger tests, we find that the null cannot be rejected for economic freedom in the Africa, Asia, West Europe, and Middle East and North Africa samples. As to the democracy determinant, we cannot reject the Granger null in the cases of Africa, Asia, West Europe, the Middle East and North Africa, and Central and Latin America, even though the maintained hypothesis holds true for the global sample.

TABLE 6: DETERMINANTS OF NATIONAL SAVING

GNSGDP	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	17.6765	25.8906	27.6272	28.9924	22.6831	21.4470	27.6595
MKTCAPRATE	0.0319 (4.9370)	0.0443 (5.1973)	0.0491 (5.3975)	0.0834 (5.9646)	0.0243 (6.7806)	0.1195 (1.9669)	0.0205 (1.2802)
AIDGNI	-0.0619 (1.9019)	-0.2378 (7.9411)	-1.0126 (8.4427)	-1.0957 (14.4232)		0.5270 (2.0683)	-0.5035 (8.3397)
RCCRISK*	-0.0443 (5.9102)	-0.2590 (5.4944)	-0.0564 (7.3261)	-0.2164 (5.0141)	-0.0770 (2.5914)	-0.1240 (2.0773)	-0.2578 (3.2347)
Adj. R-Squared	0.9207	0.5150	0.7667	0.9925	0.9399	0.8395	0.6484
F-statistic	261.5727	244.8666	302.1753	11082.35	3048.806	40.94597	240.7221
Granger 2-lag test							
MKTCAPRATE	6.2582	0.1267	0.8396	0.8132	0.6793	0.3686	1.3163
Pr	0.0020	0.8810	0.4330	0.4447	0.5076	0.6921	0.2694
AIDGNI	10.1182	2.9757	0.6028	14.4842		1.2987	7.3970
Pr	0.0000	0.0517	0.5481	0.0000		0.2747	0.0007
RCCRISK*	7.5267	0.5686	0.1144	2.9187	0.3924	2.5406	4.5795
Pr	0.0006	0.5666	0.8919	0.0560	0.6758	0.0809	0.0109

(Western European countries are generally donor rather than international aid recipients. Hence there are no data applicable to the estimate of the national saving rate for this panel)

We now proceed with using our estimated value of country composite risk as a determinant of the national savings rate (GNSGDP). Other determinants include the market capitalization ratio (MKTCAPRATE) and the international aid to gross national income (AIDGNI) ratio. The market capitalization ratio generally varies directly with the national saving rate, but the international aid ratio has a more mixed effect. With the exception of the Middle East and North Africa sample, international aid generally has a negative effect on a country's rate of national saving. As to aggregate country risk, it displays a negative effect on saving at statistically significant levels for the global and regional samples, consistent with our general hypothesis.

In terms of Granger causality tests, the market capitalization ratio null cannot be rejected for the regional samples, even though it does hold true for the global sample. As to international aid, we cannot reject the null in the regional cases of Asia, and the Middle East and North Africa samples. In terms of aggregate country risk, we cannot reject the Granger null for Africa, Asia, and Western European countries, even though it holds in the global, E. Europe, Middle East and North Africa, and Central and Latin American country samples.

TABLE 7: DETERMINANTS OF TRADE DEPENDENCY

TRDEP	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
C	93.4835	62.1355	62.1322	149.6690	155.7017	69.6753	137.4104
AIDGNI	0.5997 (9.3314)	0.1115 (1.7710)	0.8344 (2.7682)	-0.2136 (3.9195)		0.9556 (2.7645)	1.3901 (59.2363)
FDIGDP	1.1728 (3.4115)	2.8952 (7.1901)	9.5301 (15.1042)	5.3908 (21.5471)	0.3136 (13.6097)	2.0989 (4.1408)	0.4594 (8.9224)
RCCRISK*	-0.8385 (5.1283)	-0.2187 (1.9360)	-0.5017 (19.7154)	-2.4600 (17.8955)	-4.4360 (144.0787)	-0.2517 (4.1422)	-2.1307 (45.2431)
Adj. R-Squared	0.8618	0.7311	0.7631	0.9858	0.9909	0.9638	0.9959
F-statistic	1979.993	753.9477	296.3336	5842.221	21243.27	524.3222	31949.55
Granger 2-lag test							
AIDGNI	5.7457	0.2989	1.9006	7.6113		0.2977	0.4335
Pr	0.0033	0.7417	0.1517	0.0006		0.7428	0.6486
FDIGDP	3.0024	0.0578	3.4810	2.8114	0.5179	3.0686	0.8649
Pr	0.0499	0.9438	0.0322	0.0622	0.5962	0.0483	0.4220
RCCRISK	6.1354	2.2126	1.8546	6.3325	0.6155	1.1604	0.2653
Pr	0.0022	0.1103	0.1585	0.0021	0.5410	0.3151	0.7671

(Western European countries are generally donor rather than international aid recipients. Hence there are no data applicable to the estimate of trade dependency for this panel)

Turning to trade dependency, we find that with the exception of East European countries, international aid generally increases the level of per capita GDP, as does the level of foreign direct investment. FDI has a greater effect on the level of trade dependency than international aid. However, for all regional samples, risk lowers the level of trade dependency, consistent with our maintained hypothesis.

Taken together, risk works adversely on a country's rate of national saving and on its level of trade dependency. Measures that reduce a country's level of risk thus increase the rate of saving and trade dependency, which in turn increases the level of per capita GDP. With this framework in mind, we now examine the separate effects of changes in institutional variables on the underlying level of risk, and thus on a country's real per capita GDP.

## Estimates of the Economic Value of Institutions

From our nested panel regressions, we now turn to our estimates of the economic value of institutions. In our model, property rights and judicial independence determine the level of economic freedom, while in turn, civil liberties and political rights determine the level of democracy. We derive estimates of changes in these institutional variables through the nested effects that these variables have on a country's level of aggregate country risk, and in turn, on its rate of saving and trade dependency, and then on the level of PPP per capita GDP.

Our estimates proceed in several steps. First is to determine the difference in PPP per capita income from a one point increase in the corresponding index of an institutional variable. We then use the real rate of interest to derive the present value of a one point increase in each institutional variable. Finally, we estimate the relative change in per capita income through both a one-year change in per capita income and on the present value of per capita income. For purposes of comparisons we use change in the estimated value of real per capita GDP for 2002. Results of all four estimates are summarized below.

TABLE 8: THE ECONOMIC VALUE OF A ONE-POINT INCREASE IN INSTITUTIONAL VARIABLES

	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
PROPRT	\$145.64	\$50.22	\$107.27	\$144.69	\$437.03	\$26.04	\$47.94
JUDIND	\$3.16	\$6.03	\$11.76	\$138.93	\$110.55	\$0.34	\$2.86
CIVLIBS	\$18.72	\$12.45	\$7.59	\$15.18	\$528.29	-\$5.35	\$21.50
POLRTS	\$14.67	\$20.82	\$4.94	\$48.11	\$452.75	-\$7.71	\$15.22
AIDGNI	-\$0.35	-\$13.23	-\$27.66	-\$139.04	\$0.00	\$23.30	-\$3.84

TABLE 9: PRESENT VALUES OF A ONE-POINT INCREASE IN INSTITUTIONAL VARIABLES  
Present Value of Given Unit Change in Institutional Variable at Real Interest Rate

	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
PROPRT	\$1,578.40	\$428.26	\$1,684.85	\$3,094.75	\$11,948.48	\$454.22	\$252.09
JUDIND	\$34.23	\$51.39	\$184.65	\$2,971.57	\$3,022.47	\$5.88	\$15.04
CIVLIBS	\$202.86	\$106.18	\$119.22	\$324.69	\$14,443.48	-\$93.32	\$113.06
POLRTS	\$158.95	\$177.56	\$77.56	\$1,029.00	\$12,378.15	-\$134.46	\$80.03
AIDGNI	-\$3.77	-\$112.78	-\$434.42	-\$2,973.79	\$0.00	\$406.48	-\$20.19

TABLE 10: RELATIVE ONE-YEAR EFFECT OF A ONE-POINT INCREASE IN INSTITUTIONAL VARIABLES ON PPP  
GDP PER CAPITA

	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
PROPRT	2.05%	3.50%	2.33%	1.93%	2.20%	0.65%	1.00%
JUDIND	0.04%	0.42%	0.26%	1.85%	0.56%	0.01%	0.06%
CIVLIBS	0.26%	0.87%	0.17%	0.20%	2.66%	-0.13%	0.45%
POLRTS	0.21%	1.45%	0.11%	0.64%	2.28%	-0.19%	0.32%
AIDGNI	0.00%	-0.92%	-0.60%	-1.85%	0.00%	0.58%	-0.08%

Table 11: RATIO OF PRESENT VALUE TO PER CAPITA GDP FROM A ONE-POINT INCREASE IN INSTITUTIONAL VARIABLES

	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
PROPR1	22.19%	29.83%	36.64%	41.24%	60.20%	11.30%	5.27%
JUDIND	0.48%	3.58%	4.02%	39.60%	15.23%	0.15%	0.31%
CIVLIBS	2.85%	7.40%	2.59%	4.33%	72.77%	-2.32%	2.36%
POLRTS	2.23%	12.37%	1.69%	13.71%	62.36%	-3.35%	1.67%
AIDGNI	-0.05%	-7.86%	-9.45%	-39.63%	0.00%	10.11%	-0.42%

## Policy Implications

Our estimates provide a framework within which to determine the economic value of institutions. Policy reforms that strengthen a country's level of property rights and judicial independence can increase its level of per capita through a corresponding reduction in the level of aggregate country risk via an expansion in economic freedom. This is also true for expanding the level of democracy via increases in civil rights and political liberties. However, the impacts vary across regions and suggest that there is a hierarchy to a sequence of proposed reforms.

From our estimates, we note that for our global sample, strengthening property rights has a greater positive effect on the level of per capita income than does an increase in civil liberties and political rights. This is not to suggest that a democratic political system is inconsistent with a globalization model built on expanding levels of per capita income. Rather it reflects debates about illiberal democracy in which an expansion of democracy per se may not be as effective in raising per capita incomes as strengthening the underlying institutions that more directly affect the underlying level of risk. It is not a brief for postponing democratic incentives but simply places a metric value on the relative contributions of economic freedom and democracy in shaping which choices will produce a greater effect on risk, and thus a country's level of per capita income.

Strengthening a country's property rights, judicial independence, civil liberties and political rights does not work evenly across our sample of countries. We find that property rights dominate other institutional variables in determining a country's level of aggregate country risk. As to international aid, we find mixed effects by sample and by type of influence. With the exception of Middle East and North African countries, international aid generally reduces a country's rate of national saving. This is not surprising, given that international aid can create moral hazard by reducing incentives for national saving. However, as general as this finding is, it does not distinguish among forms of aid, notably whether aid consists of loans or grants, or by source of funding, such as bilateral or multilateral funding. Our primary purpose is to recognize that where aid is concerned, it may often be driven as much by political as economic considerations, and thus tends to be less effective than it could, a finding consistent with the general literature.

In terms of trade dependency, international aid generally works to strengthen trade dependency, which would be consistent with raising levels of per capita income. Again, we find the opposite result in the case of our Middle East and North Africa sample. Taken together, then, the net effect of international aid is that it tends to reduce a country's rate of saving while increasing its trade dependency, but the net effect is generally negative except in the sample of Middle East and North African countries where it shows a positive effect. The general implication is that international aid can have a positive effect on a country's level of per capita GDP, but as long as political criteria outweigh economic ones, it may be less effective than efforts to strengthen institutions that reduce the level of aggregate country risk.

By adding the separate effects of the determinants of economic freedom and democracy we find that with the exceptions of Africa, West Europe, and Central and Latin American countries, economic freedom adds more to a country's level of per capita income than does an increase in democracy. We also note that we undertook separate panel regressions on the effect of international aid on democracy and economic freedom and found that it has a small positive effect on democracy but a generally negative effect on economic freedom, suggesting that political criteria are more important than economic ones in determining international aid levels.

TABLE 12: NET EFFECTS OF AN INCREASE IN ECONOMIC FREEDOM AND DEMOCRACY  
ON PER CAPITA GDP

	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
Economic Freedom	\$148.80	\$56.25	\$119.03	\$283.63	\$547.58	\$26.38	\$50.80
Democracy	\$33.39	\$33.28	\$12.53	\$63.29	\$981.04	-\$13.06	\$36.72
AIDGNI	-\$0.35	-\$13.23	-\$27.66	-\$139.04	\$0.00	\$23.30	-\$3.84

The effect of economic freedom is derived from the sum of the separate increases of a one point change in property rights and judicial independence. The democracy effect is derived from the separate one point increase effects in civil liberties and political rights. The international aid ratio is included for purposes of comparison.

Table 13: PRESENT VALUE OF NET EFFECTS OF AN INCREASE IN ECONOMIC FREEDOM AND DEMOCRACY  
ON PER CAPITA GDP

	Global	Africa	Asia	E.Europe	W.Europe	MENAf	CLAm
Economic Freedom	\$1,612.63	\$479.65	\$1,869.50	\$6,066.31	\$14,970.95	\$460.10	\$267.13
Democracy	\$361.81	\$283.74	\$196.78	\$1,353.69	\$26,821.63	-\$227.79	\$193.09
AIDGNI	-\$3.77	-\$112.78	-\$434.42	-\$2,973.79	\$0.00	\$406.48	-\$20.19

## Conclusion

We have provided evidence of the role of risk in determining a country's level of per capita income. Measures to expand international trade and investment will produce positive effects on per capita income if countries also embrace institutional reforms that strengthen property rights, judicial independence, in concert with an expansion of democratic institutions. International aid, which often has been driven by political criteria, has historically produced generally negative effects on per capita income. If international aid is to serve as a tool for successful globalization, it needs to be crafted in ways that strengthen risk management institutions.

Secondly, we find that economic freedom carries stronger weight in raising per capita incomes than the level of democracy. This is not to say that measures to promote an expansion of democracy have no positive effects, but that economic reforms that strengthen property rights and judicial independence will produce stronger effects on per capita income. This finding is consistent with ongoing studies regarding the level of governance as a precondition for expanding per capita income (Kaufmann and Kraay, 2004; Zakaria, 2004). What these findings leave open is what incentives may be needed to bring about the kinds of institutional reform that are most effective in raising real per capita incomes.

TABLE A1: DESCRIPTIVE STATISTICS  
(global sample)

	PPPRPCGDP	GNSGDP	TRDEP	MKTCAPRATE	FDIGDP	AIDGNI	RCCRISK
Mean	7168.35	18.28	65.62	24.23	2.19	5.53	37.00
Standard Error	155.42	0.21	0.74	0.84	0.08	0.19	0.31
Median	4417.55	18.99	57.66	8.32	0.98	2.02	37.50
Standard Deviation	7564.76	10.24	35.99	40.70	3.94	8.20	15.12
Kurtosis	2.57	1.53	4.17	21.57	47.73	16.36	-0.74
Skewness	1.59	-0.24	1.61	3.67	5.56	3.19	0.07
Jarque-Bera	1646.86	250.84	2736.45	51012.44	236096.50	24407.04	56.45
(Prob.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Range	53762.19	87.33	279.14	548.54	62.48	87.65	73.00
Minimum	438.61	-32.06	6.32	0.00	-6.87	-0.57	4.00
Maximum	54200.81	55.27	285.46	548.54	55.61	87.08	77.00
Count	2369.00	2369.00	2369.00	2369.00	2369.00	1909.00	2369.00

	ECFREE	DEMOCA	PROPRT	JUDIND	CIVLIBS	POLRTS	REALINRATE
Mean	1.94	21.60	3.21	5.06	4.15	4.27	6.19
Standard Error	0.01	0.23	0.02	0.04	0.04	0.05	0.63
Median	1.92	16.00	3.00	4.73	4.00	4.00	5.72
Standard Deviation	0.67	17.17	1.05	1.88	1.89	2.22	30.62
Kurtosis	-0.21	1.63	-0.64	-0.28	-1.18	-1.53	231.46
Skewness	-0.21	0.37	0.20	0.68	0.01	-0.10	11.36
Jarque-Bera	22.04	240.69	57.05	188.37	137.37	233.72	5316890.00
(Prob.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Range	3.35	48.00	4.00	8.65	6.00	6.00	887.94
Minimum	0.05	1.00	1.00	1.15	1.00	1.00	-98.15
Maximum	3.40	49.00	5.00	9.80	7.00	7.00	789.80
Count	2369.00	2369.00	2369.00	2369.00	2369.00	2369.00	2369.00

Table A2: VARIABLE DEFINITIONS AND SOURCES

Variable	Definition	Source:
PPPRPCGDP	Purchasing Power Parity Real Per Capita GDP	World Development Indicators, the World Bank
GNSGDP	Gross National Saving Rate	World Development Indicators, the World Bank
TRDEP	Trade Dependency	World Development Indicators, the World Bank
MKTCAPRATE	Market Capitalization Ratio	World Development Indicators, the World Bank
FDIGDP	Foreign Direct Investment to GDP Ratio	World Development Indicators, the World Bank
AIDGNI	International Aid to Gross National Income Rati	World Development Indicators, the World Bank
RCCRISK	Revised Country Composite Risk Index*	International Country Risk Group, as reported in World Development Indicato
ECFREE	Index of Economic Freedom	Index of Economic Freedom
DEMOCA	Derived Democracy Index**	Freedom House
PROPRT	Index of Property Rights	Index of Economic Freedom
JUDIND	Index of Judicial Independence	Index of Economics Freedom
CIVLIBS	Index of Civil Liberties	Freedom House
POLRTS	Index of Political Rights	Freedom House
REALINRATE	Real Interest Rate	World Development Indicators, the World Bank

\*For consistency, the scale is inverted in the present model

\*\*Based on the product of the civil liberties and political rights indices

TABLE A3: PANEL SAMPLE COUNTRIES

Global	Africa	Asia	E.Europe	W.Europe	MEN.Africa	C.L.America
Africa	Benin	Bangladesh		Austria	Iran	Belize
Asia	Botswana	China	Albania	Belgium	Lebanon	Costa Rica
E.Europe	Burkina Faso	India	Czech Republic	Denmark	Oman	El Salvador
W.Europe	C.Af.Republic	Indonesia	Estonia	Finland	Qatar	Guatemala
MEN.Africa	Cameroon	Japan	Hungary	France	Syria	Honduras
C.L.America	chad	Korea,Rep.	Latvia	Germany	Turkey	Nicaragua
United States	Congo D.R.	Malaysia	Lthuania	Greece	Yemen Rep.	Panama
Canada	Congo R.	Pakistan	Poland	Ireland	Egypt	Argentina
Mexico	Côte d'Ivoire	Philippines	Romania	Italy	Libya	Bolivia
	Ethiopia	Singapore	Slovakia	Luxembourg	Tunisia	Brazil
	Gabon	Sri Lanka	Russian Fed.	Netherlands	Algeria	Chile
	Ghana	Thailand		Norway	Morocco	Columbia
	Guinea	Vietnam		Portugal		Ecuador
	Kenya			Spain		Paraguay
	Madagascar			Sweden		Peru
	Malawi			Switzerland		Uruguay
	Mali			U.Kingdom		Venezuela
	Mauritania					
	Mauritius					
	Mozambique					
	Niger					
	Nigeria					
	Senegal					
	South Africa					
	Sudan					
	Tanzania					
	Togo					
	Uganda					
	Zambia					
	Zimbabwe					
103	30	13	11	17	12	17

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## End Notes

<sup>1</sup> The Great Depression of the 1930s is instructive on this point. As individual economies erected barriers to trade in a beggar-thy-neighbor cycle, per capita incomes either declined or grew at far lower rates than took place during the 1920s. This response was anticipated by John Maynard Keynes in his 1919 analysis of the Versailles Peace Treaty, *The Economic Consequences of the Peace* (London: MacMillan, 1971 [1919]). See also Christina Romer, "The Great Crash and the Onset of the Great Depression," Quarterly Journal of Economics 105(3) (1990): 597-624.

<sup>1</sup> Much of the New Deal programs in the United States during the 1930s were driven by the absence of markets to address various forms of risk: unemployment, old age and disability, bank deposit insurance, and the distribution of income. To the extent that market institutions offer asset choices to manage these risks, the justifiable level of

public sector intervention is reduced. Where no such market institutions exist, it falls inevitably on the public sector to manage those risks, even though the result may be substantial transactions costs and the presence of moral hazard by economic agents.

<sup>1</sup> One emerging macro financial risk indicator is the Chicago Board of Options Exchange Volatility Index, or VIX. While the VIX seeks to measure stock market volatility, it does not capture other sources of risk for untraded assets such as political instability and environmental quality. Historical data on VIX daily prices can be found at <http://cboe.com/micro/vix/historical.aspx>

<sup>1</sup> One example is the risk of terrorist attacks. In the muchdebated discussion over re-organizing intelligence services to anticipate terrorist attacks, some have proposed inclusion of terrorist futures markets as a way of pricing such risks. Such a market was proposed by DARPA director John Poindexter in the aftermath of the 9/11 terrorist attacks in the U.S., but was dropped following protests that it confounded such risk with the presumption of encouraging such attacks.

<sup>1</sup> The question acquired a broader framework with the Fareed Zakaria's 1997 essay, "The rise of Illiberal Democracy," *Foreign Affairs*, 76:6 (November-December):22-43, and restated more recently in *The Future of Freedom* (New York: W.W. Norton, 2004).

<sup>1</sup> While the standard deviation of the volatility provides an absolute measure, relative risk is measured in terms of the coefficient of variation. The existence of such measures requires the existence of functioning markets in which the volatility of a traded asset can be observed. Yet risk can exist for nontraded assets, which makes the measurement issue more problematic, and which is why we adopt an index of aggregate country risk in the present analysis.

<sup>1</sup> This becomes even more problematic in the context of conditional risk, rank ordering, and the framing of alternatives. The field of behavioral finance derives from insights derived from psychology, in particular, work undertaken by Kahneman and Tversky. See, for example, Kahneman, Daniel, and Amos Tversky (1979), "Prospect Theory: An Analysis of Decision Under Risk," *Econometrica*, 47:263-91.

<sup>1</sup> In more complete markets, aggregate country risk can be tracked to some extent through sovereign bond ratings, measures of political stability, indicators on environmental quality, and on the presence of financial risk management instrument prices. Since many emerging and developing countries lack these measures, our use of the ICRG aggregate country risk serves as a proxy to those measures.

<sup>1</sup> This is a qualified statement. It is possible that the ICRG index may be used in some derivative contracts, although we have not direct evidence to support or refute this possibility.

<sup>1</sup> Two factors motivate the choice of an ordinary or fixed effects approach. One is that with a random effects model there is a considerable loss of degrees of freedom. The other is that because we include developed countries in our sample, the international aid to GDP ratio is absent.

<sup>1</sup> We have rescaled the ICRG index so that higher values of the index reflect higher levels of risk, and thus to derive a more intuitive insight on the inverse relationship between aggregate country risk and per capita income. Our revised index is thus listed in various regression estimates as RCCRISK.

<sup>1</sup> Two criteria have been used in the selection of countries. One is data availability, while the other is a simple grouping by geographic region. No attempt has been made here to disaggregate countries by policy reform environments, as is done in many World Bank studies.

<sup>1</sup> The Index of Economic Freedom is based on an unweighted average of ten factors, based on a compilation of 50 independent variables drawn from a sampling of expert opinion and published data sources. The ten factors are: trade policy, taxation, government intervention, monetary policy, capital flows and foreign investment, banking, wage and price controls, property rights, regulation, and black market conditions. We apply the property rights and judicial independence indicators as independent variables for this analysis.

<sup>1</sup> Ted Robert Gurr and others have developed various polity measures as indicators of the level of democracy across countries. While the polity index does provide some insights, it does not cover the range of countries we seek to examine, nor does it resolve the issue of whether one is measuring elections as the primary determinant of

democracy or whether civil liberties and political rights can capture important pre-conditions for electoral democracy to function effectively. See T.R.Gurr, K Jagers and M. Marshall (2000). *Political Regime Characteristics and Transitions, 1800-1999*. (College, Park, Md.: Center for International Development and Conflict Management, University of Maryland).

<sup>1</sup> One other variant we considered is the weighted average of the index of civil liberties and political rights. The product index works better as it matches more closely the range in per capita GDP for the sample of countries used.

# Apulian Agribusiness: Typicality versus Globalisation in Consumer Perception

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## Abstract

Italian agriculture is one of the “made in Italy” systems which characterises the whole Italian production system. The present organisation and production of the Italian agro-industrial system results from a complex evolution leading to the modernisation of this sector. Consumer food buying behaviour proves to be influenced by brand (46%), expiry date (41%), ingredients (29%), price (28%), brand experience and previous purchases (13%), production origin (9%), promotion (8%), store loyalty (6%). So far typical products, which present a strong socio-economic link with the territory, play a proactive role in this system. This paper investigates the performance of Apulian olive oil, both from the production side and the consumption one. It deals with its typicality and its contribution to local development.

## Introduction

Following its important role in the 1960s the Italian agricultural sector was, on the one hand ‘involved’ in the country’s process of industrialisation which greatly influenced the manufacturing industry, while on the other it was progressively reorganised both in terms of workforce and in the share of income produced, bringing it into line with the rest of Europe (Casati, 1997). The demographic rise of the 1960s, together with this increase as a consequence of the modernisation of production in the manufacturing industry, resulted in increased agricultural demand. This in turn created an analogous increase and reorganisation in supply which tried to follow the trend of demand by continuously increasing productivity and technical progress in the production processes. However, in conformity with Engel’s law, the incidence of food consumption on Italian family expenditure gradually decreased; on increase in absolute values of demand resulted also in a decrease in relative values due to the growing interest in the quality of goods purchased. [1]

In this context supply was re-evaluated in terms of its contribution to the national income – and therefore to employment – while simultaneously undergoing a type of ‘industrialisation’ in the productive “filiera”, characterised by closer and atypical relationships with other sectors; initially with inward production input and machinery suppliers, and outward product transformation and distribution. These circumstances, together with the introduction of technical progress in agriculture, led to a continuous increase in productivity. Over time this also led to the ‘historic’ surplus of agricultural labour which continues to characterise the industry even at European levels.

Although now a perfectly integrated process, the national agrifood industry also showed a series of unusual factors which, at times, seem to restrict the total and efficient modernisation of the system, and at others create opportunities which may lead to a real growth process. In this context the main characteristic is the small or very small size of the agricultural businesses which permeate every aspect of the production unit involved, from the number of hectares (90% of national agricultural businesses are between 1-10 hectares; slightly more than 1% is more than 50 hectares) to the derived income (in 2003 more than 60% of national agricultural businesses – which account for about 1/3 of total production – declared an average income of 7,000 euros, while slightly more than 10% declared around 65,000 euros, accounting for 2/3 of total production). In a context of rapid intensification of commercial exchange, expanding markets and increasing organisation of the production process, the smaller businesses may undermine the competitiveness of the national agricultural industry. If the highest level of productivity is not achieved then a good result as regards standardised goods will not be reached and may prove to be a limitation

in satisfying market demand for raw materials, resulting in reduced market power compared to the larger distributors (Pieri & Venturini, 1995; Casati, 2003).

This paper deals with typicality as a competitive asset for the agricultural sector in a global scenario (par. 2 and 3). In particular Apulian olive oil has been chosen as a typical product, which contributes to industrial and economic development. The performance of Apulian olive oil has been studied, both from the production (par. 4) and the consumption points of view (par. 5).

## **Agribusiness: The SMEs Production Approach in the Global Era**

Small sized firms are characterised by traditional methods of production and of goods, which consequently are closely linked to their original areas. This creates a type of 'identity trademark' which renders the product, and the firm, semimonopolistic. Moreover, the persistently traditional nature and high demand for territorially linked traditional products is partly becoming a competitive advantage for the national agrifood industry which seems to find a market in those segments where product 'typicality and quality' are appreciated. Within the sector territorial differences are extremely important and related to a complex mix of factors ranging from the obvious differences in environmental and geographical conditions, to the various historical events which influenced different areas of Italy, to recent economic development which affected different areas to varying degrees, in some cases reducing the differences between stagnant and dynamic areas and increasing them in others.

The first significant dualism is the well-known one between North and South. Northern agriculture appears industrialised, capitalised and part of a developed and organised agrifood system, characterised by more efficient productive units, due also to the numerous productive infrastructures. Southern agriculture, however, while having the 'exogenous' advantage of a favourable climate, providing an agricultural offer in keeping with the rest of Italy and most European partners, is limited by the low number of territorial infrastructures. The different environmental, geographical and historical conditions previously mentioned, the different rate of technical progress as well as the varied physical territorial conditions have, over time, led to a type of division in the national agricultural industry which is reflected in the type of cultivation. This ranges from intensive agriculture, mostly in the North, characterised by high economies of scale, product standardization and the continued use of technical progress (Iacoponi & Marotta, 1995), to the so-called quality agriculture characterised by non-standardised production which is differentiated according to the area and therefore typical, and is potentially very competitive even when considering that relative demand seems to be more elastic.

The national agribusiness, however, is influenced by other more significant differences which are more closely linked to the type of supply and relative production methods. The many environmental differences which characterise the country create specialised production areas which are restricted and homogenous, so much so that many of the principal national agricultural products are almost exclusively from particular areas. This concentrated area of production and the smaller size of the productive units together with a society deeply rooted in its own territory are the factors which create the unique productive "filiera" known as "sistemi produttivi locali" (Garofoli & Mazzoni, 1994), in which the businesses involved in the different stages benefit from the presence of firms which are differentiated, complementary and interactive. In this way the smaller dimensional economies linked to production technology are balanced, making use of significant economies of localisation and agglomeration thus creating a greater differentiation in production (less standardisation) having greater flexibility in the organisation of processes which only small interactive production units can generate.

Other positive influences on competitiveness of production concentration are the possibility of lower transaction costs due to the proximity of the businesses and continued mutual contacts. This type of production is closely linked to the territory and its history and initially operates on the local market but in time acquires an added 'competitive' value, even in global markets, for its 'typicality'.

Based on this categorisation for industrial districts (Becattini, 1987; Becattini & Rullani, 1993), the unique factors necessary for a hypothetical agroindustrial district ought to be:

- Typical quality products;
- Co-ordination between agricultural and local transformation industries;

- Flexible specialisation;
- Ability to use innovations;
- Good training and entrepreneurship;
- A common market;
- Local institutional support networks.

These factors identified different types of local development models which vary from local agricultural systems to local agrifood systems, from local agroindustrial protodistrict to agroindustrial area (Gurrieri et al., forthcoming).

Most of the identifying factors of an agroindustrial district can be seen in the typical traditional cultivation by clusters of small businesses and, even more noticeably, in the offer of organic products which can be defined as a 'niche market', now increasing both in competitiveness and in satisfying all the 'new' needs of the demand for agricultural goods (traceability and origin, food safety, typicality, territorially linked history, culture and tradition).

The identification of these products (brand, label) whether it reflects the choice of the business or the existing related law, has a signalling function necessary for food products which become an experience goods and for which correct customer information through the brand is a basic requirement for market functioning or credence, as for the case of organic products.

### **Agribusiness: The SMEs Consumption Approach in the Global Era – Typical Products**

Typical products not only represent an important resource for the local economy, rooted in a delimited area, but also impact positively on the consumer systems to whom they are targeted. Therefore they are linked in a biunique relation with the territory and its economic systems (both production and consumption). So far typicality derives from place specific factors that, in turn, are a source of wealth especially if boosted by the interaction between place governance and local entrepreneurship (Golinelli C.M., 2002).

This kind of goods communicates its own identity, transferring emotions, sensations and tradition. They are also a tool for understanding the local community, its habits, traditions and spatial features; it is more than an economic asset, it is a cultural matter, a way of life.

Typicality can be appreciated in two ways: the production one, that derives from the qualitative peculiarities of the raw materials, their origin, the environmental and morphological conditions of the area, and the know-how of the transformation industry. The consumption direction depends on the relation with the consumer market, on the consumers' perception, who, by identifying themselves in the product ambience, contribute to strengthening the product and the community images (Cardinali, 1998; D'Amico, 2003). Again the biunique relation summarised in the word typicality, is obvious.

Typical products result as being the offer of a whole, complex system, that group together the benefits derived from taste, traditions, and place (see Fig. 1). Being typical constitutes the added value that can differentiate the physical product; in this sense it is no longer important to invest in branding or packaging but in trying to preserve the values through *typical* brand or packaging. That is not to say that marketing actions are not to be used, but the classic marketing thrusts should help to retain and constantly renovate this particular source of differentiation, avoiding all the niche problems that occur.

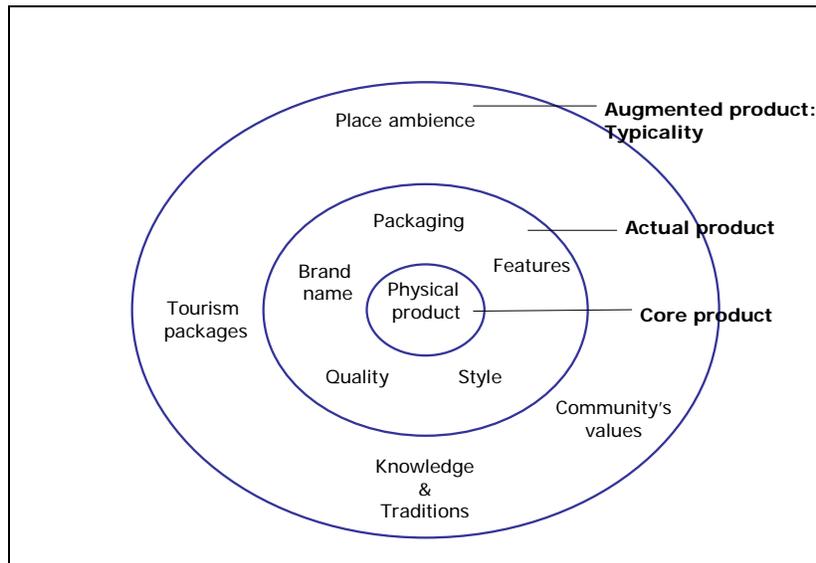


FIG. 1: THE LEVITT MODEL FOR TYPICAL PRODUCTS

Source: elaboration on Levitt (1980)

The more typical the product, in a sense linked to the territory's production and consumption, the more difficult is its success in global competition (Gurrieri et al., forthcoming). Therefore, in order to change the weaknesses into strengths and exploit the market opportunities boosted by globalisation, a systemic approach (Golinelli G.M., 2001) in the offer management should integrate consumption models and different regional diets, to project/design a unique selling proposition under a collective brand. In fact, the approach now used does not manage to support the growth of typical Italian products, because it does not succeed in customer loyalty, or in turning non resident consumers into regular ones.

The threat is represented by the lack of consumption culture, identified in the link with the territory and its traditions. Therefore global acceptance is an important factor based on local specificities and using a market orientation, product differentiation, brand image, innovation, packaging, and long term relations with a proactive distribution, both in department stores and specialist retailers (Magni & Santuccio, 1999; Malagoli, 2002).

### Apulian Olive Oil: The Production Side

Italian domestic expenditure for typical products is showing a slight decrease due to the price cut that is higher than sales volume increase, olive oil shows the strongest performance, together with wine, with a growth of 243.7% per year due to an increase in sales volume linked partially to the drop in the average price. This product scores an AC Nielsen penetration index [2] less than 5%, showing a niche performance. On the contrary higher index performance are recognisable for products with a long tradition in the convenience category, such as cheese, salami and wine (e.g. Parmigiano Reggiano, Prosciutto di Parma e Prosciutto San Daniele).

Therefore, olive oil is one of the most traditional foodstuffs on the national agricultural market. It was chosen not only because it is produced nationwide but it is also 'linked' to the area with different results in supply, information and mainly in typicality and tradition which distinguish it from other national products and especially foreign ones (Nomisma, 2000).

In this context the term 'typicality' presupposes and summarises a quality product, in particular virgin olive oil. Quality has also become the subject of European Community Agricultural Policy (Ari & Datar, 2002) since the 1990s adopting Community regulation 2081/92 on PDO and PGI and 2092/91 on organic agriculture. According to Community regulation the PDO trademark can be applied to "agricultural and food products deriving essentially or

exclusively from a geographical environment which includes natural and human resources and where production, transformation and elaboration occur in the place of origin” [3]. Therefore, all stages of the production process must occur in a restricted geographical area. PGI on the other hand, is applied to agricultural or food products in which quality and characteristics or reputation are attributable to geographical origin and production and/or transformation, and/or elaboration occur in a specific geographical area, therefore only one stage of the production process must meet this requirement (Federalimentare, 2001).

In adopting the Regulations of PDO and PGI the EU decided to protect and increase the value of the quality and typicality of some products. Moreover it tried to satisfy the consumers’ increasing need for information and support the local rural reality, especially in outlying and disadvantaged areas of the Union, as well as aiding the development of quality control systems based on respecting specific productive regulations established by the production controllers.

These European initiatives for safeguarding quality were favourably accepted by the producers as an important opportunity to increase the value of local agricultural products by certifying origin both in terms of geography and variety. As regards Italian olive oil in particular, in the areas of oil cultivation where most of the virgin olive oil was sold unbottled and anonymously, obtaining a PDO and PGI certificate could give additional value and partly repay those producers interested and involved in the production of quality oil. The introduction of this certification has the natural and advantageous consequence of favouring the production of virgin olive oil of consistent typicality as this can be obtained only from certain varieties of olives typical to the production area and of a very specific nature. Table 1 shows the different types and consequent commercialisation of nationally recognised PDO and PGI olive oils.

TABLE 1: COMMERCIALISED PDO/PGI EXTRA VIRGIN OILS (TONS)

	1998/99	1999/00	2000/01	2001/02	2002/03
Toscana	550,0	1521,2	1252,2	1904,4	2419,4
Umbria	283,3	431,8	576,1	525,5	685,8
Terra di Bari	-----	694,2	499,4	592,2	650
Riviera Ligure	223	225,1	441,9	379,4	540,4
Valli Trapanasi	-----	23	57,3	160,8	164
Garda	71,1	86,6	121,6	127,9	150
Dauno	-----	189,8	193,9	142,9	113,8
Chianti classico	-----	-----	60,6	107,2	111,7
Aprutino Pescarese	60	78	71,4	63,4	76,4
Sabina	-----	85,3	90,7	118	72,1
Val di Mazara	-----	-----	-----	-----	68
Canino	-----	41,5	84,7	131,4	62,9
Colline di Brindisi	-----	17,5	22,5	24,7	57,3
Monti Iblei	-----	-----	4,4	69	55,5
Colline Teatine	-----	-----	55,1	95,2	44,6
Colline Salernitane	-----	4,1	29	65,3	40,7
Terre di Siena	-----	-----	6,3	26,9	40,5
Lametia	-----	-----	38	68,5	22,1
Terra d’Otranto	-----	-----	10,9	14,5	17,4
Bruzio	-----	-----	24,9	86,1	17,1
Cilento	-----	9,6	6,4	17,2	15,2
Penisola Sorrentina	-----	11,6	11,3	8	13,1
Veneto	-----	-----	-----	-----	10,1
Laghi Lombardi	-----	-----	0,7	2,8	4,9
Brisighella	2,8	9,3	5,6	17,9	1,8
TOTAL	1190,1	3428,5	3664,9	4749,4	5454,8

Source: Ismea

The Italian regions with the highest recognitions are Apulia, Sicily, Calabria, Campania and Abruzzo, testimony to the southern tradition of oil production which merits protection and interest. While PDO and PGI recognition presents good opportunities for becoming well-known, of specific additional value and transparency and safeguarding for the consumer, it must be stated that this potential can be neutralised by a series of restrictions which reduce the effective potential.

Firstly, size restrictions determine the main decision of producers to satisfy family needs, reducing the final amount available. This partly reflects the expression of what appears to represent, in the short term, the greatest restraint on PDO/PGI development, identifiable not only in the real availability of the product but in the low propensity of the producers to have it certified and commercialised. This behaviour should be considered a response to the difficulty in finding a market for a certified product at the price which this added value implies, or rather, a price which covers the main production costs when respecting PDO/PGI regulations. A possible short term solution could be the reduction of certification costs, thus 'unburdening' the company accounts.

The role of the Protection Agencies would seem to be important, and ought to be widespread and active in the support and promotion of PDO/PGI recognition, both individually on a territorial level and at national and international levels. This would help the local, national and international consumers who are inclined to buy quality products but also require guarantees on choice by offering them further security which may justify the higher cost of certified products on the market compared to similar conventional ones (see table 2).

TABLE 2: PDO/PGI PURCHASED BY ITALIAN FAMILIES

	Volume		Value	
	T.	Var %	Millions of euro	Var %
	2003	2003/02	2003	2003/02
<b>ITALY</b>	<b>1923</b>	<b>7,9</b>	<b>13,5</b>	<b>19,4</b>
<b>Areas (%)</b>				
North West	24,6	11,9	32	31,7
Nord East	69	1,7	59,6	8,3
Centre	2,4	30,8	3,4	33
South	4	240	4,9	172,5
<b>Family members (%)</b>				
Single	30,8	64,2	34,2	76,4
2 people.	29,3	10,4	30,9	26,4
3 people	22,6	13,4	18,5	11
4 people.	11,6	-38,2	11,9	-16,2
5 people	5,7	-34,4	4,6	-49,8
<b>Income (%)</b>				
Income to 260 euro	4,5	-33,1	3,3	-52,2
Income 260-420 euro	23,3	46,7	16,5	45,2
Income 420-620 euro	29,4	-28,2	25,9	-18,7
Incombe > 620 euro	42,6	46,3	54,3	61,5
<b>Purchaser (%)</b>				
Up to 34 years old	9,5	14,4	11,1	64
34 -45 years	13	-22,2	11,5	-18,3
45-54 years	23,2	-23,1	25,5	-12,8
55-64 years	28,5	14,5	26,2	28,2
More than 65 years old	25,6	102,3	25,7	94,7

Source: Ismea elaboration on panel family data Ismea/ACNielsen

In this scenario Apulia is the major Italian producer of olive oil, with 350 thousand hectares that represent 70% of the agribusinesses. This product is strongly linked with the region's morphological structure and landscape. So far it has become an identification symbol all over the world. While the oil production is strong, it also shows

huge weaknesses in marketing, especially in packaging and promotion. So far it does not impact the entire Apulian economy, failing in its role of typical product and local development tool.

The creation of a protected denomination of origin (PDO) label should be the basis of a successful action to compete on domestic and foreign markets. In fact, Italian olive oil has a well established image abroad, which, together with the expansion of demand in non-consumer countries, represents a good opportunity to exploit. In foreign markets, where the elasticity of demand to price is higher, Italian oil is positioned in the convenience category offering a high value.

The consumption evolution and the attention given to the Mediterranean diet, especially by the large organised distribution, create some opportunities for the Apulian system. The high and stable national consumption, on one hand, pushes towards differentiation strategies, while on the other hand it gives the opportunity to plan long term investments without the risk of demand and commercial margin fluctuations.

In this sense the first step to restructuring the oil system is to improve the product image focusing attention on the product and the Mediterranean diet during the purchase action. Therefore synergy between producers and bottling firms should be fostered in order to promote the typical oil (see Table 3).

TABLE 3: SWOT ANALYSIS OF APULIAN OLIVE OIL

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Territory with a long tradition in olive production, that is relevant all over the world.</li> <li>• Favourable environment for cultivation.</li> <li>• Various types of olives in relation to the area of origin.</li> <li>• Strong link with the territory, that offers the possibility to exploit this product for the environment, landscape, tourism.</li> <li>• PDO, geographical features and production standards are tools for product differentiation.</li> <li>• Predisposition of the farmers to invest especially for machinery.</li> </ul>	<ul style="list-style-type: none"> <li>• High fragmentation of the sector that impedes the renewing of the plants and the use of new methods of harvesting because of high costs.</li> <li>• Lack of bottling firms in the region: a high percentage of the production is bottled outside the region transferring the added value.</li> <li>• The need for rotation and so the misuse of adequate techniques.</li> <li>• Low propensity to export.</li> <li>• Production localised in marginal, profitless areas.</li> <li>• Insufficient infrastructures.</li> <li>• High presence of illegal work.</li> <li>• Lack of associative behaviour.</li> <li>• Lack of investments in research and experimentation.</li> <li>• Lack of marketing actions, especially promotion.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Strong demand for typical extra virgin olive oil, with a stable and high national consumption.</li> <li>• Very good image abroad and a steady demand growth in non-consumer countries.</li> <li>• Convenience positioning on the foreign food market.</li> <li>• The development of irrigation and storage practices to reduce production rotation and stabilise consumer prices.</li> <li>• Widespread oil mill distribution, together with modern cultivation techniques, to produce a valuable oil.</li> <li>• Consumer sensitivity to quality and rediscovering of local traditions.</li> <li>• Political action to foster cooperation among all those involved, also providing incentives.</li> <li>• A territory with a tourism vocation.</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of not exploiting the PDO or PGI from the EU properly.</li> <li>• Increased competition from Mediterranean countries with similar production and all the requirements for EU financial help, due to European market enlargement.</li> <li>• The high amount of direct selling, that does not reach the break even point to bear the higher promotion costs.</li> <li>• Due to personal relation in the direct selling, the oil quality could not fulfil the qualitative standards required by the EU regulations for bottled oil.</li> </ul>

### Apulian Olive Oil: The Consumer Side

Considering the consumer evolution, olive oil, as a typical product, evokes a sense of “we-ness” and rediscovers the link with the territory; while, as a firm product, stating its strong demand and rapid supply growth, differentiation

strategies based on territorial aspects, production standards and promotion are needed in order to underline the different features.

In an attempt at analysing the performance of Apulian olive oil as a typical product, this paper investigated consumer attitudes towards the product by a questionnaire distributed in department stores, supermarkets and superstores. The objective was to measure the consumer perception of olive oil typicality and territoriality and to what extent the link with the Apulian territory is a purchasing choice criterion.

Olive oil is a demand-oriented market, differentiated by high product quality (Ismea, 2000). On the other hand informational asymmetries between producers and consumers cause a persistent gap between the tangible quality of the various types of oil and the perceived quality of the segments. Therefore buying behaviour is based on income, social, cultural and psychological factors such as food habits, personal opinions, acquired knowledge, traditions.

Data were collected by interviewing a random sample of 353 people, near to the possible points of purchase in the province of Bari, where 1/3 of the regional production is carried out. The dataset was analysed with SPSS; firstly by descriptive statistics, in order to describe the main characteristics of the sample; secondly by the MDS technique and the factor analysis (Molteni & Troilo, 2003) to measure Apulian olive oil perception and its presence in consumption attitudes and in the shopping basket.

The sample was of 52% of women, who are, generally, mostly involved in the household shopping especially regarding food, and the average age is 40. Surprisingly, men from 30 to 50 years old were the most informed and very precise in answering, confirming consumer behaviour evolution. As regards buying behaviour, they are strong consumers of typical products, especially pasta (28%) and mozzarella (23%); this derives from their food culture that is strongly shaped by their origin.

In order to investigate the link between the sample's buying behaviour and geodemographics (Roth, 1995; Peterson & Jolibert, 1995), a chi-square analysis was carried out, correlating the place of purchase (oil mill, supermarket, private and own production) to sex, age, and profession. Thus it has been hypothesised that there is a relationship between the purchase of oil and consumer culture, namely tradition, search for quality and healthiness; but also the available income can influence purchasing, since consumers can pay a premium price for a quality product. In fact, the analysis showed that the point of purchase is correlated only to profession, as a measure of money supply [4].

In order to understand why olive oil, and in particular the Apulian one, is bought, an in-depth analysis has been carried out on the benefits and features sought, the different types and brands bought.

Of the oil features that are predominant in the decision making process, taste is the first characteristic that the sample looks for (72%), so a hedonistic feature, but also a quality index of the product; secondly, consumers look for density (30%) and colour (36%). These two attributes regard the outward appearance and the oil pureness in relation to the refining process [5]. Moreover, the benefits sought by consumers are identified in fig. 2. Two main areas are identified: the first regards the healthy consumers, the latter the price oriented ones; while in the middle there is a third area identified by the single "usage" variable.

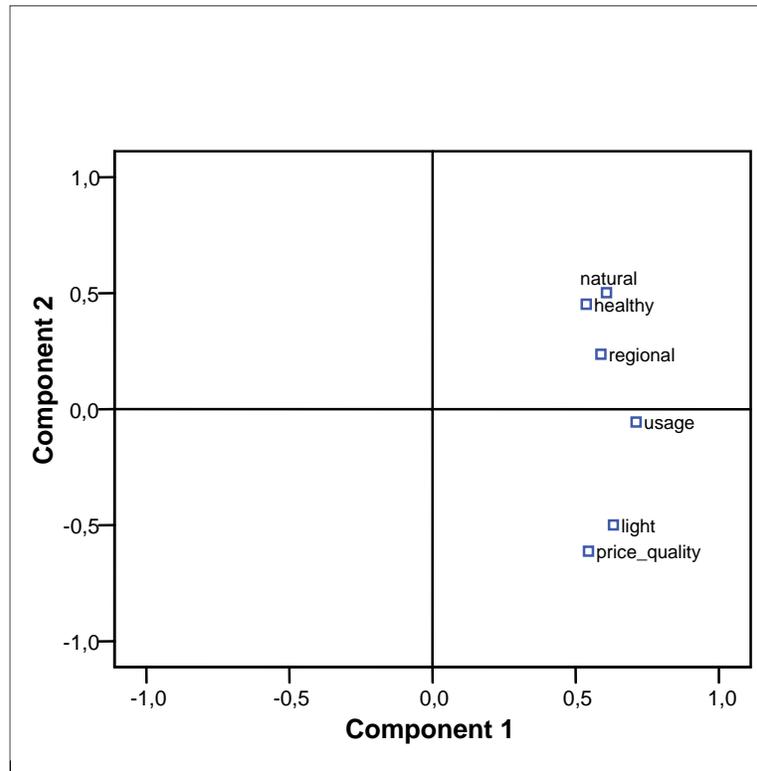


FIG. 2: APULIAN OLIVE OIL FEATURES

The first segment is composed of people very focused on the genuine quality of the product and the benefits they gain in diet and consequently in health. They consider the Apulian product better than others from other regions. Instead the second one has underlined the importance of the relation between price and quality, even though from the production side the olive oil still has high costs. The affordability increases the use of the oil that is considered in this segment, “light” in the sense that it can be used to flavour most foods, as also required in the Mediterranean diet.

Lastly, an analysis on the brands’ position in the consumer perception has been carried out (see fig. 3). A local brand (De Santis) resulted as being the most well known and purchased, due to its link with the territory, acting on the made in and the authenticity. The main competitors prove to be two national brands (Bertolli and Carapelli) that can have access to better marketing actions, such as advertising and wider distribution. However in the buying choices, consumers do consider the oil mills, which provide a product they trust, being typical. In fact, the oil mill choice can give the consumer the possibility to appreciate the distinctive features of local production and the producer to establish a high level of differentiation.

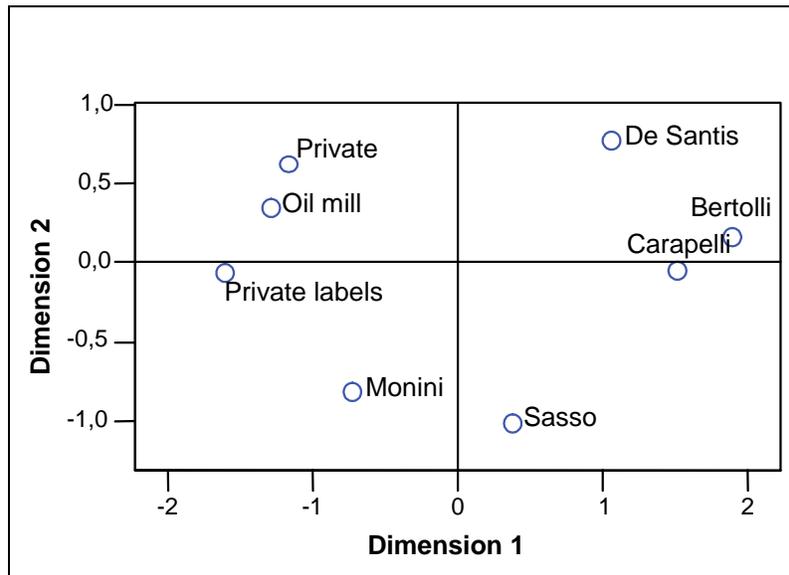


FIG. 3: OLIVE OIL BRANDS' POSITIONING MAP

In confirming the findings, data on the percentage of purchase for each ACNielsen area in the two opposite channels (modern – Hyper & Supermarkets - vs traditional distribution) show how in Nielsen's area 4 (Southern Italy) the gap between the two distribution forms is less than the other areas, with a greater weight for the traditional one, due to the culture and the purchase behaviour of southern consumers. This confirms the fact they are not greatly influenced by advertising and classical marketing tools, but are more focused on “typicality” assets, in the fact that they look for direct contact with the “producer” acting on trust and genuine assurance (see fig. 4). In fact, in the rest of Italy, except for the North East, the bottled product is consumed, especially in the modern distribution channels. In conclusion, the purchases of oil are strictly correlated to consumer socioeconomic features: high income, high level of education, and a preference for modern distribution in order to buy quality products at good prices.

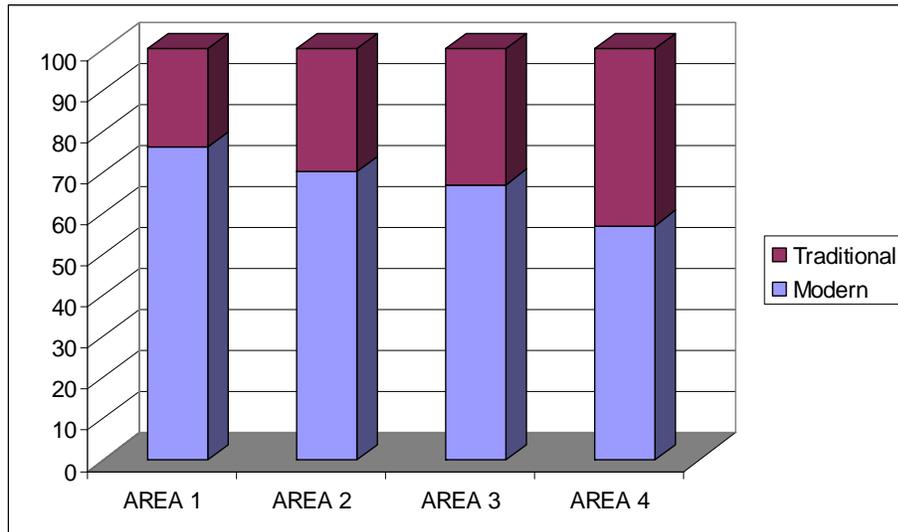


FIG. 4: PURCHASE FOR AREAS AND DISTRIBUTION IN ITALY  
Source: elaboration on ACNielsen data (2004)

As can be seen in fig. 5, the market shares confirm the brands' positioning. The national and the local situations show a fragmented market, in which the link with territory plays an important role. The market can be divided into six groups in relation to distribution strategies and level of differentiation, three of which are clearly identifiable in both the figures: 1) the big firms, with national and international markets, a strong penetration in the modern distribution, and brands with a well-established image that requires huge investments in promotion and advertising (i.e. Carapelli, Sasso and Monini); 2) the big modern distribution chains, with their private labels that are correlated to their logo; 3) small and medium enterprises, with a limited territorial market, differentiated by product quality, geographical origin, local traditions and taste (i.e. De Santis and the oil mills). Moreover, on the national scene three more players are operating, such as 4) firms that distribute their products through door to door and mail order selling (i.e. Fratelli Carli); 5) multibusiness firms, with niche strategy, producing extra virgin olive oil with a high price and quality (i.e. De Cecco, Del Verde); and 6) export only oriented firms (i.e. Olitalia, Oleifici Colavita). In the local arena there are a lot of very small (micro) enterprises (labelled private in the figure) which serve small segments, mostly linked by kinship and friendship.

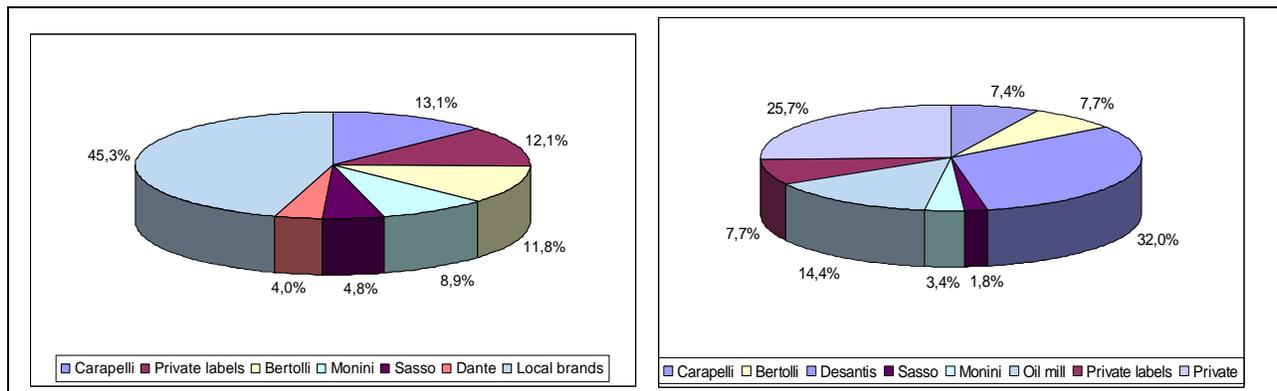


FIG. 5: OLIVE OIL BRANDS' ITALIAN AND APULIAN MARKET SHARES  
Source: elaboration on ACNielsen data (2004)

## Conclusions

Globalisation has opened many opportunities to the Apulian agribusiness, in particular for olive oil, as well as many challenges, such as new competitors (i.e. Spain, Greece, Tunisia, Morocco), managerial issues (i.e. organisation of the “filiera”, new productive process, marketing activities). The expansion of demand is due to cultural and social phenomena, which have shifted consumer attention on quality, traditions, and typicality.

This last feature proves to be the main asset on which a strong management approach should be based to foster the position of oil in order to enhance its image effect and increase its global market penetration. In this sense consumer attitude and perception represent the first elements on which typical products can develop successful competitive strategies in global markets, exploiting the product and the competitive advantage of national system.

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### **End Notes**

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L. Petruzzellis contributed specifically to section 3 and 5, A.R. Gurrieri to section 4, M. Lorizio to section 1 and 2.

1. National food consumption was approximately 55% of total consumption in the post-war period, but in the 1990s was less than 20%.
2. The index measures the percentage of families that have bought the product at least once.
3. To date 111 Italian PDO and PGI have been registered within the Community, including both agricultural and agrifood production. The registered production are present in all regions of Italy and divided into six main areas: cheese, fresh and processed meats, fruit, vegetables and cereals, extra virgin olive oil, condiments and essential oils. Cheese is the leading group with 30 types/categories, followed by fruit, vegetables and cereals = 28, fresh and processed meats = 26, extra virgin olive oil = 24, condiments (traditional balsamic vinegar) = 2 and essential oils = 1. As regards regional division, the highest number of types/categories is in Emilia Romagna (20), followed by Lombardy (18) and Veneto (13). The division of number of types by region shows that almost 70% are from production areas in Northern Italy, with slightly more than 30% of products from the Centre- Southern area.
4.  $p = 0.001$  for the variables point of purchase-profession;  $p = 0.683$  for point of purchase-sex;  $p = 0.941$  for point of purchase-age.
5. For example, the green colour means that the oil is very pure; the greener the oil the less it has been treated.

# **Agriculture and Development: Prospects and Dilemmas**

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## **Abstract**

The agricultural sector has a central role in the development process and the challenges facing agricultural development has both national and international implications. In recent years there is much concern for the maintenance of the ecosystems which is featured high on the agenda particularly as the pressures for agricultural growth occurs with an increasing global population. According to the FAO's agricultural department there are inevitable links between agriculture and the ecosystem. However a positive outlook by the FAO stated that in 2030 there is hope that the average arable land per agricultural person is expected to increase a little allowing the opportunity for more land to be cultivated in a sustainable way. This paper addresses the following questions: what is the relationship between agriculture and development? Who depends on agriculture? Which agricultural policy objectives should receive most emphasis? Is it growth, modernisation, increased marketed output and export or equity?

## **Introduction**

In virtually all developing countries agriculture continues to play a major role within the process of development. It may be appropriate to begin by stating that out of the 5.1 billion people who live in developing countries, 3 billion live in rural areas and 80% (2.5 billion) of the rural population depend upon agriculture for their livelihood [16]. But what is of major concern is that it is estimated that 70% of the poorest people in developing countries are located in rural areas and engaged primarily in agriculture bearing in mind that the differences in levels of poverty vary from country to country. In a recent World Bank presentation Mellor [18] highlighted the importance of tackling rural poverty to change the situation of those who work in agriculture. Mellor [18] stresses that the crucial employment creating linkages that stems from agricultural growth will inevitably have a beneficial impact on the rural poor. Accelerated growth in agriculture indirectly boost demand for goods and services within the local rural community and towns. Furthermore knowledge of the behaviour of the landless peasant farmer and near landless rural households who account for the majority of the world's poor is vital for shaping any government policy aimed at reducing poverty.

## **Historical Perspective**

Presently there is a lot of focus on industrialization which is seen as a means of upgrading society to improve the overall standard of living. However, it is without doubt that agriculture still remains the dominant sector in many developing countries. In countries like Zimbabwe and Tanzania agriculture accounts for about 65% of the total labour force whilst in Nepal, Malawi and The Gambia it accounts for roughly 80% of the labour force [9]. One of the most amazing phenomenon of developing countries during the 1950's and 1960's was the neglect of agriculture even though a high proportion of the population were engaged in agricultural production. But a high cost was paid when the rural – urban migration resulted in higher poverty levels.

A major explanation for the poor performance of agriculture is that traditionally poorer countries have tended to exchange primary commodities ( food and unprocessed raw materials ) for manufactured consumer durables. Even today about 50% of developing countries' exports comes from trade in primary goods [16]. This pattern of trade has persisted since the days of colonization when the trade of developing countries were subservient to the needs of colonial powers. The pattern of trade has often resulted in deterioration in the balance of payments of developing countries due to fall in the price and demand for primary in relation to those manufactured imports. The latter lead many governments to reorient their economies by pushing industrial development within their strategic

planning programmes. During the 1950s and 1960s Import Substitution Industrialization (ISI) strategy was epitomized as the way forward to the achievement of development. In Latin America Prebisch [10] was the instrumental force behind ISI which many Latin American countries followed at the time. In a nutshell Prebisch [10] and other advocates including the development economist Singer [12] argued that the developing countries were in a dynamo of “unequal exchange” as they exported vital raw materials at low value due to the existence of an unorganised labour force and an abundant supply of labour whilst they imported high cost industrial goods from developed countries where labour was highly organised and workers received high salaries. Prebisch termed this trade “unequal exchange between the centre and the periphery”. ISI advocated the philosophy of self-reliance and it arose out of the economic experience of developing countries which were experiencing balance of payments deterioration leading to indebtedness and dependency which meant that developing countries needed to produce what they were importing. In order to cut off dependency, ISI stresses that the state needs to protect infant industries from foreign competition until such time when they can gain economies of scale to allow them to compete internationally. More importantly it implicates more economic sovereignty i.e. less dependence by developing countries on the imports of technology and capital from developed economies.

In response to the problems there was a quest for industrialization by some Asian, African and Latin American developing countries. This led to negligence of the agricultural sector which suffered from both institutional and moral support. Most governments laid emphasis on urban investment and rural areas received little or no attention. Poor infrastructural development in the form of poor transport, lack of water facilities and lack of farming technology resulted in low output. Many farmers left the land in search of the flourishing urban life resulting in a shortage of labour in rural activities. Poor farming methods lead to insufficient innovation, cultivation on marginal land leading to severe erosion and deforestation. In some African countries civil wars and high occurrences of tropical diseases caused massive disruption in normal farming activities. Moreover the effect of colonial economies left a very unequal divide between rich and poor farmers. Most crops were geared exclusively for exports and neglect of the internal markets by post-colonial governments resulted in failure of reformation.

### **The Contribution Agriculture Makes to Growth?**

The agricultural sector is crucially important since billions of people in developing countries live in rural areas and depend upon agriculture for sustenance. Agriculture still remains a means of livelihood for about 60% of the people in countries like Indonesia, Sri Lanka, India, Bolivia, The Gambia, Ethiopia, Zaire and Malawi.

Moreover estimates have also shown that women participation in agricultural labour force within developing countries is very high amounting to about 80% from a recent study [17]. It shows that women do most of the agricultural work yet they generally lack credit facilities or land ownership.

The Lewis [8] model predicts that agricultural changes occur via an overall shift in the pattern of investment encouraging increased productivity and better wages. According to Lewis [8] in the initial stage of industrial development surplus labour from the agricultural sector can be attracted to the industrial sector which offers a wage above the subsistence wage in agriculture. The industrial's sector demand for labour depends on the marginal product. If the marginal product is above the wage rate then more labour would be employed as this would increase the profit levels of employers. However one consideration within the strategy of agricultural policy in poor countries is that the growth of the workforce outstrips the rate of job creation in the non-agricultural sectors. The surplus labour in agriculture contrary to Lewis's model may remain an unemployed pool as there comes a point in time where no room is left for absorption of labour in industry. Moreover concentration on industrial expansion exacerbated income inequality in many developing countries during the 1950s and 1960s and the trickle-down process took many years before any benefits could be felt by the working population. The Lewis model justified industrialization policies biased towards capital-intensive production and ignores agriculture's contribution to economic development other than labour release.

During the 19th century the production and export of cotton from the UK and dairy products from Holland gained substantial revenues for development. Even in Cuba in the 1960s the production and export of sugar helped in achieving massive revenues for development. But there are insufficient reasons for the present developing

countries to follow the same pattern of historical development pursued in the past by rich countries. Although there is a large amount of technology and experience to gain from, developing countries face an entirely different and highly adverse environment from that which existed when present rich countries developed before their industrial growth. There is stronger competition for export markets than that which existed during the nineteenth century. Huge barriers are set up against the exports of agricultural products by developing countries and products like sugar and pulses are subsidized in developed countries. For example although the EU's cost of sugar production is the highest in the global markets subsidization enables it to be ranked as the second largest exporter of sugar in the world. Moreover political and institutional structures are more complex in developed countries determining the current options for the development of poorer countries.

## **The Dual Carriageway between Agriculture and Industry**

The agricultural sector not only provides output to other sectors but it can be viewed as an important source of demand for other sectors' output. To quote Viner [14]: "there are no inherent advantages of manufacturing over agriculture or for that matter of agriculture over manufacturing". A thriving agricultural sector is useful for the manufacturing sector as it provides tax income, supplies food and raw materials to the rest of the population. Raw materials such as timber, jute, cotton and rubber are all essential inputs for the industrial sector for helping a country to sustain itself and the production and exports of such agricultural products where the country has a comparative advantage can help to earn valuable foreign exchange. Agriculture also utilises inputs supplied by the industrial sectors such as tractors, agricultural tools and equipment. According to Meier [9] the demand for farming inputs from industry depends upon the dynamic growth in agriculture. Moreover the tertiary sector expands together with marketing and transport to cater for the additional demand from agriculture. But one setback faced by farmers is that the prices of such commodities have low price elasticities of demand because when world supply increases, prices fall placing exports in a disadvantageous position when compared with exporters of industrial goods.

The experience from current developed countries shows that as countries develop, the proportion of GDP and employment accounted for by agriculture falls. It has been observed that the rise in living standards shape consumption patterns which increases demand for durable goods and services whilst proportionately less income is spent on food. The richer developing countries like South Korea, Malaysia, Brazil, and oil-rich countries have peaked on the size of the agricultural labour force whilst many of the poorer countries need to development strategies to firstly develop agriculture which spreads timely industrial development. Very poor countries like Ethiopia and Sierra Leone are still far from this goal.

## **State of Agriculture in Selected Developing Countries**

Sub-Saharan Africa contains most of the poorest countries in the world which are extremely dependent on agriculture for support. Since the mid 1950s food output per capita has been falling. The decline was 0.4 % annually from 1960 to 1984 with further decline in the 1990s [16]. Per capita income has been falling since the 1960s in most of Sub-Saharan Africa. Droughts from the 1960s up until the 1990s have deteriorated their food problems. An estimate of poverty given by Deaton [3] for Sub-Saharan Africa showed that 49.7 % of the people are living in poverty where poverty is calculated as the proportion of the population living on less than \$1 a day. Much of the land mass is not water fed and so will require expensive irrigation schemes to expand its potential for cultivation. The United Nations Food and Agriculture Organization (FAO) has helped to increase the amount of arable land that can be cultivated. Financing transport infrastructure is very expensive but the governments have also failed to invest in agriculture. Moreover these countries are highly indebted and are heavily dependent on aid. It must be mentioned though that Kenya was successful in Schultziian policies as it developed the high yielding variety of maize and increased its tea output within the region.

China accounts for approximately one fifth of the world's population and highly deserves attention in any discussion of agricultural production. Between 1950 and 1978 when the command economy was in operation in China the growth rates in grain production was as high as the growth rate in population though the full potential of

Chinese agriculture was not realised. The incomes of the rural farmers were depressed resulting in a loss of morale and at the same time interregional trade was very limited. The reforms involving more free trade which took place in agriculture after 1978 led to exceptionally high gains in agricultural production. But removal of intervention in agricultural markets has led to much higher prices offset a little by a rise in public sector wages. A dramatic revision of policy reforms since 1979 has led to vast technological improvements and capital inputs into Chinese agriculture though China also experienced high inflation and income inequality in the 1990s. Technological innovation increases the welfare of society but market forces work in such a way that that innovating producers may not be able to increase profits or may suffer from loss of profits. Presently China has been very successful in reducing poverty to an all time low partly due to the success of the Green Revolution.

## **Land Reforms**

The economic rationale for land reforms is that it reduces land inequality and gives more opportunity to increase productivity. Griffin [6] argues that land reform is a pre-requisite for agricultural growth. An analysis of economic development of countries post 1945 by Dovring [2] showed that there is a positive relationship between land reform and productivity. However the results of land reforms are mixed and it may be a necessary condition but not always sufficient. Extensive land reforms pursued in Taiwan, South Korea and India resulted in massive gains to subsistence farmers giving them a chance to engage in mixed farming as well as a sense of worth and identity. Gini coefficients for land ownership calculated by Todaro [13] showed that Taiwan, and Japan had a low Gini, ranking them high in terms of an egalitarian land structure of ownership. India, Pakistan and Mexico had moderate inequality in land ownership whilst Brazil and Columbia came out with very high inequality in land ownership. During the 1970s low productive agriculture stood side by side with an unevenly developed industrial sector in Brazil where there was a high concentration of land ownership. This has led to high concerns for radical changes to develop a more egalitarian system which is not only beneficial for poor farmers but for the country as a whole.

Taiwan makes an interesting case for the analysis of agricultural progress. Before 1945 almost two-thirds of Taiwan's labour force was engaged in agriculture producing food surpluses for Japan, its colonizer. Agricultural production between 1923 and 1937 grew by 4% a year when new technology helped to transform agriculture. During this period a high diffusion of a new high yielding rice was introduced to Taiwanese farmers backed by the support from local agricultural institutions funded by the USA. Land reforms led to rapid growth in agriculture during the 1950s and 1960s. Savings from agriculture helped to promote productivity in the industrial sector and later on mechanisation in agriculture raised the profile of the sector incorporating it as part of the modern economy.

## **Barriers against Exports of Agricultural Goods**

One of the factors affecting the demand for primary product exports is that trade barriers have been erected by the industrialized nations against agricultural imports from developing countries. Both tariff and non-tariff barriers which include sanitary laws regulating food and fibre imports, packaging, safety regulations, import quotas and production subsidies in importing countries are the main forms of protection against agricultural goods both (processed and unprocessed) from developing countries. These barriers principally operate against the class of products exported by developing countries. In spite of the Uruguay and Doha round of talks within the WTO forum there still needs to be much more reduction in barriers against agricultural goods from developing countries by developed countries.

Another issue at stake is that the export of agricultural goods both (both food and non-food products) have been subjected to falling demand and prices. One of the factors affecting demand for agricultural goods exports is that the per capita income elasticities of demand for agricultural foodstuffs are relatively low. When relative agricultural prices are falling as they have been for the last fifty years (real commodity prices have fallen by 50% between 1957-1992, (see Todaro [13] and World Bank, [16]). All of these have devastating effects on developing countries' export earnings. Even the EU's Common Agricultural Policy discriminates more against developing countries' food exports than the policies that had previously prevailed in the individual EU nations.

The supply of agricultural products has been affected by the structural rigidity of many developing countries production systems. These structural rigidities include limited resources, poor climate, arid land, undeveloped rural institutions and non-productive land tenure. No matter what the global demand for a product is, export expansion is stifled by the rigidities facing supply.

Developing nations also face dualistic farming structures where multinational corporations are engaged in capital –intensive agriculture side by side with low-production farming pursuits. Multinationals have a powerful position and a strong hold over the production and exports of major agricultural commodities produced in developing countries. These multinationals are both forward and backward integrated controlling the exploitation of raw materials, processing, manufacturing and marketing allowing huge economies of scale to be gained. Examples include Broken Bond control of tea production, Del Monte involvement with pineapple, Cadbury control of tea cocoa and Nescafe holdings of coffee plantations in Brazil. It remains to be seen what impact globalisation would have on agriculture.

## **Research and Development in Agriculture**

According to Schultz [11] the transformation of traditional agriculture would bring huge gains in productivity if there is increased investment in new technology. Schultz argue that traditional farmers have peaked out in production with existing technology and the usage of modern techniques would benefit farmers' research. But poor farmers are unable to finance new technology so state support is necessary to create dynamic changes. However the impact of technological change creates unequal distribution of benefits as the consumers gain more than producers. Consumers gain more in the case of inelastic demand as the more inelastic the demand the greater the price reduction as supply increases. The crux of economic development is that technological change leads to a decrease in real prices enabling consumers to spend an increasing part of their income on consumer durables.

In agriculture technological innovation increases the welfare of society but market forces work in such a way that innovating producers may not be able to increase profits. Bhagwati [1] calls this immiserising growth since increased production and exports leads to lower price and deterioration in the terms of trade.

Estimates show that research expenditure has more than tripled over the last three decades. But research expenditure in the Pacific region and Asia increased more than in Sub-Saharan Africa. As early as 1944 the Rockefeller and Ford have been involved in the establishment of more than five international research centres which provided a huge stimulus to the implementation of modern techniques in developing countries agriculture. The high –yielding varieties of wheat and rice was the breakthrough in agriculture gained from research and technology transfer by CIMMYT (Centro Internacional de Mejoramiento ) and IRRI (International Rice Research Institute) leading to the formation of the central features of the Green Revolution. The Green revolution stemmed from the latter created a huge impact on agricultural yields of rice, maize, wheat and many other crops. In many cases the new hybrid varieties were adapted by local research centres to suit the local environment. The central features of the Green Revolution are easily divisible for small farmers (irrigation, fertilizers, hybrid seeds, fungicides and insecticides) are all scale neutral. According to Griffin [6] it is often found that credit availability and interest rates are much less favourable for small farmers than for big landlords which still remains the case presently. While small farmers face a disadvantage as small loans cost more, many subsidised loan schemes are specially targeted at better –off farmers whereas small farmers have to rely on the higher cost informal loan market. Such strategies are clearly unhelpful to smaller poor farmers who are vastly out-competed by the big farmers. According to De Janvry [4] in Latin America there is a self reinforcing nexus of interests amongst large landowners, industrialists and politicians resulting in benefits to the better off farmers.

India gained substantially from the Green Revolution as it became self sufficient in grains during the 1980s when previously it was an exporter of wheat. In some African countries the problems of structural deficiencies exist within agricultural markets and institutions which include lack of rural infrastructure and general government support. But sometimes local expertise and knowledge have been ignored by international research bodies in the design of production and agricultural strategies. Critics argue that if research is to be beneficial to poor farmers then

more attention must be paid to the preferences and ideas of locals and local conditions. In some cases the local adaptive research programmes have enhanced the value of the international varieties to particular locations.

In the past insufficient attention has been given to drought resistance food crops in Africa or to tree management whilst the bulk of attention has been given to export crops and a few major food crops. If changes are to occur amongst the poor the research programmes should be more closely geared to the perception which the poor have of their problems, to the resource they work with and to their own ranking of agricultural priorities and ideas for solutions. Very recently research has led to the introduction of New Rice for Africa (NERICA) is a high yielding rice variety developed to combat attacks by pests and weeds as well as problems of droughts. The New Partnership for Africa's Development partly assisted by the FAO has proposed investments amounting to US\$250 billion between 2002 and 2015 to raise agricultural productivity in a sustainable way. Hopefully this can solve many of the regions' problems.

## Conclusion

In spite of the strong controversy of what is development, there is agreement about certain key criteria of development as a process which elevates human society economically, socially, politically and culturally. We can fairly say that the centre-periphery still remains as the economic order especially so since the majority of developing countries are becoming increasingly excluded from global affluence. There is still much to believe that the future of agriculture lies in institutional transformation

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# Global Forces and International Marketing: Decision Support Framework

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## Abstract

**Descriptive theories of the internationalisation processes of firms are authors' observations that describe what firms have done to internationalise. Conventional theories about the internationalisation processes of firms appear less able to explain observed behaviour in a contemporary global marketplace. This paper posits that management decisions (and internationalisation theory development) need to be responsive to, and generated in response to pervasive global forces, as this is the environment all firms must compete in. In a global world that values choice, speed, information, collaboration, risk transfer, market convergence, business cost reduction and increased consumer value, the focus of theory and model development to explain firm internationalisation processes might better be shifted towards providing more practical guidance to firms. This paper seeks to provide a decision framework around international marketing planning and assist firms to decide 'what' they should do in response to the dynamic environment they're obliged to operate in.**

## Introduction

Business will not be as usual in Asia/Pacific in the third millennium. There will be new ways of doing business in a new environment with new players using new communication and product delivery technologies and product distribution systems. This premise alone questions the validity of theories developed to explain the internationalisation of firms. This is a function of time and change. As more and more firms internationalise in greater numbers than ever before for fundamental reasons (and operate in a more dynamic and turbulent trading environment than ever before), it may now be preferable for academics to provide more practical guidance than to perpetuate internationalisation theories that explain past behaviour.

The consequences of globalisation has seen increased regional integration of economies and markets Solberg, (1997) and Rugman, (2001), increased mobility of human capital and skills, and flows of foreign direct investment across borders. Trade liberalisation has opened markets. The current phase of liberalisation is supported by rapid progress in technology in telecommunications and transport services. According to Moen (2000) and Jolly, Alahuhta and Jeannet (1992), ongoing globalisation is believed to have an important impact on the nature of competition. Like trade liberalisation and regional economic integration, information technology and e-commerce are powerful and new drivers of change and growth in the Asia Pacific region. 'Interconnectedness' is already drastically transforming regional economies and reshaping how companies operate with one another. Lazer and Shaw (2000) suggest, 'As multinational firms increase their global outreach, the interconnectedness and linkages among companies and countries will intensify,' (p68). The shape of competition and the 'unit of analysis' moves from an individual firm to a network of firms that compete against other networks. Elements of Porter's 'value chain' undergoes change that effectively reflects vertical integration and interdependence between companies.

Internet and e-commerce applications are affecting the basis of competition by radically altering the buying behaviour of all businesses and consumers. Possibly even increasing competition by fostering lower prices and improving service delivery. IT and e commerce offers companies opportunities to build an infinite number of end customer relationships that will increasingly threaten and transcend middle layers of the supply chain. Consumers seeking information about products will be less reliant on intermediaries to identify, filter and deliver options. As a consequence of these factors conventional customer definition, supply chain management practice and basis of competition are rapidly becoming redundant.

The global pervasiveness of broadcast media is an enormous 'driver of change' and has added weight to academic and commercial arguments about consumer convergence (Levitt 1983), (Czinkota and Ursic, 1984), (Bell, 1995), (de Chernatony et al 1995), (Schlegelmilch and Sinkovics, 1998), (Ohmae, 2000) in many industries,

especially consumables Schlegelmilch and Sinkovics (1998). Further, not only are consumer needs converging and homogenising, but they transcend geographical borders making the unit of analysis no longer country by country. Consumer and businesses are demanding similar satisfactions driven by new communications (IT and broadcast media) and faster transportation and product delivery options. Global competition intensifies and product choice increases. Herein lie enormous implications for marketers and marketing academics. How do conventional theories of firm internationalisation fit with these global phenomena?

In his empirical study Fletcher (2001) proposed a holistic model of internationalisation with recognition of a dynamic global business environment. To empirically test the model Fletcher (2001) suggested an operational model with four distinct constructs and a fifth construct, which he called 'linked' that placed his model within a network perspective as well as an 'environmental' approach. He was very critical of what he terms,

*"...early approaches to internationalisation, such as the 'stages', 'learning' and 'contingency' approaches [which] were developed on the basis of empirical surveys of past export practices in the US and Europe in the 1970s and 1980s, the ...changes in the international business environment mean that such approaches may no longer be relevant. These changes in the environment call for a new approach that embraces a more holistic view of internationalisation," p 29.*

Fletcher is not specific about what the 'changes in the international business environment' are, as this paper suggests, but agrees that a new and more holistic approach to internationalisation is appropriate now. That is, a contemporary approach to business development that embraces awareness of, and awareness of the impact of global forces and in turn, the measured responses (marketing activities) of exporting firms transpire.

## **Conceptualisation**

Understanding this paper and research area might best be achieved by constructing a conceptual framework around what the author considers is the essential problem. Rather than understand the process of internationalisation the paper posits there a salient 'marketing problem' exists. It concerns managers' ability to recognise there are pervasive and 'impactful' forces operating in the global marketplace. And that these forces need to be identified and evaluated with implications determined for their international business operations. The entire problem however, is not only about recognising, identifying and evaluating forces and trends at play in his environment, but just as importantly, to determine what decisions need to be made and what 'responses' are appropriate. Potentially, otherwise, business responses may be impulsive and/or ill conceived. Ill conceived decisions are very probable if pervasive global forces are not recognised at all or their impacts are misinterpreted or underestimated. The problem is essentially about strategic pathways, global marketing management and simply making better marketing decisions. It can be conceptualised in the following manner, Fig. 1.

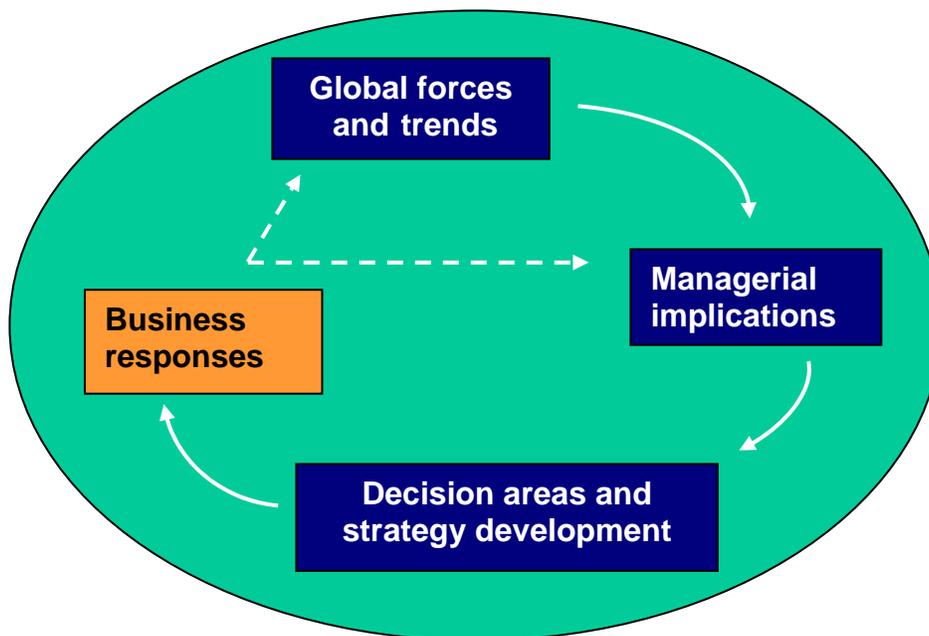


FIG. 1: CONCEPTUALISING THE INTERNATIONALISATION PROBLEM

Companies need a clear understanding of the relationships between pervasive external forces and trends that impact upon growth, and well conceived marketing ‘responses.’ The consequence of businesses not recognising this is equally evident. A poor understanding of external factors or intelligence gathering ability about possible opportunities/markets by exporters, may lead to ill conceived or impulsive responses. For example,

- “Lets develop an e-commerce strategy,” or
- “Let’s enter China” (new market development), or
- “Lets appoint this distributor” (assuming this is the appropriate market entry mode and that this is the most suitable distributor) or
- Lets ‘cluster’ with other similar companies and meet capacity constraints

Heresy? “Of course firms need an e-commerce strategy these days.” But why does it need one? Why cluster? Why diversify markets now? This conceptualisation is an attempt to tie these decisions to the fundamental reasons to make them in the first place. Addressing fundamental issues of marketing, resource and capability.

The four essential elements of this model seek to provide a decision making process that addresses internationalisation problems in a reasoned and integrated manner.

The business planning begins by defining the key ‘exposures’ the firm/industry faces (Box 1). These exposures may represent a mix of threats and opportunities. Box 2 identifies the implications of these exposures and opportunities. Box 3 details significant business decision areas that are (un) consciously made by managers. Box 3 is also about strategy development. Finally, Box 4 are the responses and actions the entity makes. A decision support framework.

**Global Forces and Trends (Box 1)**

- The widespread pervasiveness of global broadcast (Western) media and its content
- Increasing regional integration (Solberg 1997, Lazer and Shaw (1999), Rugman (2001) witness CER, ASEAN, ASEAN Plus Three, NAFTA, MERCOSUR, EU and common currencies, with 10 new members ratified in 6/04’)

- Trade liberalisation and the opening of markets (Lazer and Shaw 1999, DeRosa 2000, Sacha 2001) topical developments such as new trade agendas at multilateral trade forums eg agriculture at WTO 11/01', China/Taiwan's entry into the WTO 11/01')
- New multi and bi-lateral trade negotiations that are forged between Government Ministers and their foreign counterparts (NZ & Hong Kong 2001, NZ & Singapore 2000, NZ & Chile 2000 & 2001, NZ & US negotiations currently and also NZ & China)
- Structural changes in the way markets operate and are regulated (Lazer and Shaw 1999, Lowengart and Mizrahi 2000)
- 'Consumer convergence' (Levitt 1983, Czinkota and Ursic 1987, Bell 1995, de Chernatony et al 1995, Schlegelmilch and Sinkovics 1998, Ohmae 2000) and the internationalisation of lifestyles (Douglas and Craig, 1999)
- Economic and business cycles (Weber 1996, Lazer and Shaw 1999)
- Unexpected 'wildcards' (Trade NZ 1996, Petersen 1997, Cornish 2003) for example the Asian economic crisis of 1997-8, Sept 11, geopolitical crises Iraq 4/03', SARS 5/03,' Bird Flu 4/04,' tsunami 12/04' ...)
- Global branding issues including their decline/demise (The Economist, 8/9/01 p 26-28) and
- Last but not least, the diffusion and rapid adoption of IT and e-commerce technologies by both exporters and foreign customers (Vlahos 1995, Molloy et al 1995, Hamill 1997, Hamill and Gregory 1997, Schlegelmilch and Sinkovics 1998, Lazer and Shaw 1999, Douglas and Craig 1999, Cummings et al 1999, Heintze et al 2000).

Lazer and Shaw (1999) suggest,

*'Marketing managers will have to give increasing attention to company specific implications of WTO rulings, IMF pronouncements, G7 meetings, regional trading block arrangements, government actions on trade and tariffs...(p72).'*

Lazer and Shaw don't go far enough to illustrate the host of other externalities that managers have to be mindful of but the relevance of their statement is clear; that managers will have to be more diligent than in the past because of a more turbulent external environment. These 'drivers of change' encourage managers to come back to the basics of business planning beginning with review or audit of the situation. This invites fundamental questions. These may be a revelation to practitioners and academics alike whereby challenging conventional thinking, commercial practice and approaches to IM strategy development.

These forces can be made or interpreted to be industry specific. The corollary of this is that industry specific and customised responses may be made that reflect the reality of industry global trade.

#### **Managerial Implications (Box 2)**

There are significant implications for firms and entities given an understanding of the impact of these 'drivers of change' upon international business. These include a need to redefine their...

- Customer groups (who are our future customer groups, what do they look like and how do we reach them?)
- Global supply chain management (both forward and backward, what partner characteristics do we need? What do we want them to do?)
- The nature of competition (can companies continue to operate independently or are interdependencies (to source and supply) salient for competitiveness? What is the new nature of competition? and 'business to business' relationship management?)
- Risk transfer to local partners, (Osland 1994))
- Dis-intermediation trends and consequential product distribution and channel selection
- Company location issues (how can companies operate from fewer locations yet find, keep and supply a wider array of customers?)
- Increasing global competition and the greater proliferation of products and consequently, greater consumer choice. More discerning consumers (what is the appropriate basis of competition we should adopt?)
- Market research and market intelligence gathering systems.

These are big issues. How are companies responding to these paradigm changes that reflect a contemporary global business environment?

Research has looked extensively at ‘internal’ or ‘firm specific’ determinants of internationalisation and performance (Cavusgil et al 1993; Diamantopoulos and Schlegemilch, 1994; Thirkell and Dau (1998), and specifically product attributes (Day and Wensley, 1988; Cavusgil and Zou 1994; Terpstra and Sarathy, 2000), firm resources (Reid 1982; Terpstra 1987), resourced based theory (Grant 1991), firm capabilities (Aaker 1988) and linking resources, capability and competitive advantage in studies by (Grant, 1991; Day and Wensley, 1988). Other bodies of research have focused on government influence via export development programmes and assistance etc (Cooke, 1991; Julian, 1995). However, this literature has not been written with a view towards the externalities of the global trading environment that prevailed at the time these were researched.

### Strategy Development and Decision Areas (Box 3)

This framework is iterative. Table 1 details the business decision and strategy formation areas that reflect analysis of the implications (Box 2) of the ‘drivers of change’ mentioned in Box 1. Much of the rest of this paper discusses elements of strategy development.

TABLE 1: BUSINESS DECISION AREAS AND STRATEGY FORMATION

Decision Areas	Dimensions
Market performance measures	<ul style="list-style-type: none"> <li>▪ How do/should companies determine when they should or need to diversify their market and supply activities?</li> <li>▪ How do companies determine business exposures?</li> <li>▪ What economic and financial market performance measures should they use?</li> </ul>
Resource allocation	<ul style="list-style-type: none"> <li>▪ How should resource allocation be determined?</li> <li>▪ Commensurate with market/segment investment priorities?</li> <li>▪ and actual and forecast return?</li> </ul>
International market portfolio management	<ul style="list-style-type: none"> <li>▪ How are markets/segments rated against each other according to market share, ROI and other objectives for being in each?</li> </ul>
Global marketing management and positioning	<ul style="list-style-type: none"> <li>▪ IPLC analysis, customer and competitor analysis, internal objectives by market and product</li> </ul>
Company location issues	<ul style="list-style-type: none"> <li>▪ Business done over ‘the ether’ is forcing a change in the physical nature of firms. Will companies need multiple locations in all markets?</li> <li>▪ Are there contemporary mechanisms that allow companies to expand their reach, product supply and customer servicing abilities, yet operate from fewer locations?</li> </ul>
International market selection (IMS)	<ul style="list-style-type: none"> <li>▪ When should companies do this? Importantly, is the validation to (further) internationalise solid?</li> <li>▪ How do they go about this fundamental activity?</li> <li>▪ Is market concentration preferable to diversification? What circumstances lend to diversification rather than market concentration? How do companies determine which strategy is appropriate?</li> </ul>
Market entry strategy (MES) development	<ul style="list-style-type: none"> <li>▪ How should companies determine entry mode and international marketing plans based around the corporate and marketing objectives (of each market)?</li> <li>▪ How should market investment alternatives be evaluated to determine the trade-offs to be made?</li> <li>▪ What contemporary thinking would lend towards long term and sustainable market development mechanisms? That is, mechanisms beyond simple indirect exporting.</li> </ul>
Product strategy	<ul style="list-style-type: none"> <li>▪ Do companies ‘customise or standardise’ their offerings in light of their understanding of their markets?</li> <li>▪ Is there growing homogeneity amongst previously disparate markets that will simplify marketing mix decisions?</li> <li>▪ How is ‘brand strategy’ affected by these trends? And what is the value of our ‘equity’ now?</li> <li>▪ Does ‘product management’ take a different form? NPD? Product and market lifecycles?</li> </ul>
International supply chain management	<ul style="list-style-type: none"> <li>▪ Do companies compete by themselves or do the combination of the linkages</li> </ul>

(forward and backward integration) and company inter-dependence.	<p>forged with other companies (networks) compete?</p> <ul style="list-style-type: none"> <li>▪ Should company thinking reflect network competition rather than their individual entity competition?</li> <li>▪ Does this contemporary thinking transfer risk? And is this a desirable goal anyway?</li> <li>▪ Is there a correlation between supply chain management decisions and market entry mode choice?</li> </ul>
Forward and scenario planning, and sensitivity analysis	<ul style="list-style-type: none"> <li>▪ Are these still relevant disciplines in global environments that are ever more uncertain and more turbulent than ever before?</li> <li>▪ Can alternative scenarios be adequately envisioned in these contemporary times?</li> </ul>
E-commerce, intra company 'interconnectedness.'	<ul style="list-style-type: none"> <li>▪ Is this important? Why?</li> <li>▪ Is this decision supplier, customer or competitor driven? Does it matter?</li> </ul>
Developing a competitive model	<ul style="list-style-type: none"> <li>▪ What is the appropriate and contemporary 'business to business' model?</li> <li>▪ How do companies determine this?</li> </ul>

These decisions are not new. They are already, either consciously or unconsciously being addressed by managers. What is perhaps more important is that they are addressed in isolation of a framework that does two things

- Links them together in a holistic manner and,
- Validates each decision against a better understanding of the reasons for it in the first place. 'Trade-offs' can be made after careful evaluation.

What is the alternative for competition in a modern global environment?

We should imagine a third column to Table 1 entitled the 'Answers.' These answers are also known to us (marketing academics) and to a varying extent, practitioners as well. The answers are a mix of theoretical concepts often grounded in practice and may also be described as 'best practice.' The pathways to answer each one of these decision areas may be disciplined and proven by academic/empirical research. Practitioners may not always be operating to best practice standards and herein lies another challenge for academic educators and Crown export development agencies to disseminate and transfer what may be described as best practice knowledge.

## Strategy Development Discussion

Wild cards will always be played. Imagine your own delight (or despair) when the left bow is played. It's played when it should be by you or your partner, or when expected, or not. The key in global commerce success however, is how companies do respond when their environment is dealt a wildcard (a new competitor, a new competitive product, compliance change, change in channel configuration, consumer preference change, geopolitical upheaval...)? How should these scenarios be planned for and pathways charted that take into account sensitivities when forecasting? How can any of these scenarios reveal the extent of exposure?

Alternatively, can companies create 'wild cards' or outcomes that advantage themselves? For example, a new technology, breakthrough in product development or new delivery channel to market, a precise redefinition of customer groups that competitors have not realised, other developments that extend competitive advantage? Generating and responding to wild cards should be a part of strategy development.

China and Taiwan's admittance into the WTO (WTO Doha, Qatar 11/01'), might be the single largest influence on Australasian companies' international market selection decisions in 2003 and beyond. China's entry to the WTO means relaxed market access barriers in accordance with a rules based system advocated by the WTO. With its mass market potential, world beating cost base, high skills level and intensive internal consumer demand it has a strategically dominant position in the minds of many Australasian exporters who previously would have concluded the barriers to entry into China are too onerous including psychically difficult. The demand prospects alone of consumerism are expected to significantly weigh China as a priority new market for entry and development by Australasian exporters. This risks displacing any 'methodical process' exporters may use to determine international market selection (let alone valid reasons to diversify in the first place).

In addition to trade liberalisation and regional integration trends, business done over ‘the ether’ is forcing a change in the physical nature of firms. Will companies need multiple locations in all markets? Possibly not in the future. The company location decision is a relatively new and exciting area in the global management area. In part, this area of decision-making has been driven by IT and e-commerce as much as being responsive to market demands. IT systems linking downstream supply allows commensurate resource allocation according to (future) market value. IT and e-commerce practice is also both a reflection of and driver of new values (choice, speed, consumer value, collaboration, risk transfer, cost reduction etc). We might expect to see further advancements in IT and e-commerce enabling companies to develop strategies of broader geographic reach yet operate from fewer physical locations based on real time information management. A combination of wireless and broadband technologies, revised ‘forward and backward’ supply chain management arrangements and contemporary in-market investment mechanisms including appropriate network partnerships will set in place a company’s forward growth pathway including its physical infrastructure.

Blankenburg (1995) and Fletcher (2000) provide models that offer more holistic views of the external environment facing the firm. Blankenburg suggests that the firm may perceive this environment as one that comprises both internal and external perception of the forces that comprise the external environment. The model views markets as being structured as networks, with the focal firm, to some extent dependent upon its connected actors and their interactions. Our posit has not changed despite discussions of relevant and semi relevant models in that model and theory development needs to first identify both external forces and the commercial environments and necessarily be responsive to both.

Crick (1995) found that decisions to enter markets with a perceived low ‘psychic distance’ were less important than decisions based on global trends in technology markets and relations in networks. The markets served were perceived to be those with growth opportunities for a firm’s particular niche products, i.e. the desire to be close to particular customers played a major role in the decision to invest in subsidiaries overseas. Initial modes of market entry tended to be limited, but the types and pace of further internationalisation varied.

Burgel and Murray (2000) suggested that an organisational capability perspective on young, resource-constrained, technology-based firms’ behaviour offered a better explanation of their entry decisions than either transaction cost or stage theory. Qualitative case study research by Walton and Lukyanovic (2003) suggests New Zealand technology companies emphasised ‘product functionality, design superiority, technical & product support in-market and price advantages’ in preference to country imagery and distance to markets as these factors influenced their international marketing activities.’ Importantly, the sample of this study revealed that their overseas customers did not place importance on any awareness (if they had any) about environment or sporting images etc, on their choice of technology products and New Zealand as a source of supply. Are some industries and products less dependant on traditional ‘country of origin’ themes and psychic distance in their international marketing decisions?

The discussions of the notions of company collaboration and network theory and practice evident in some industries (Madhok 1997, McKinsey 1993, Oviatt and McDougall 1994, Knight and Cavusgil 1996, and; Burgel and Murray 2000) leads to another important business response. That of ‘born global’ companies and the born global phenomenon. Conventional literature on this phenomenon has focused on ‘sunrise’ knowledge intensive or ‘new economy’ industries and concluded that the phenomenon is restricted to such firms and is of recent origin. Zhao and Du (2000) typify this view with their empirical study of electronic commerce companies (ECCs) by saying these companies are

*“virtually born global...and ignore national boundaries and jump into global markets in early years, p1.”*

Waters (1995) states that one manifestation of a globalising world is the emergence of the ‘entrepreneurial start-up’ that has an international outlook from inception. Knight, Bell and McNaughton (2001) conclude from their study of a ‘sunset’ industry (the NZ seafood sector) that the majority of the firms sampled in their study display the same attributes as the knowledge rich ‘born global’ companies that much of the existing literature refers to. They further refute another existing tenant in internationalisation literature, that of the ‘psychic distance’ phenomena. They concluded that,

*'in their choice of international market entry, these firms (seafood) frequently ignored psychically close markets (such as Australia) and confidently launch straight into supplying customers in Japan, Korea, Taiwan or Saudi Arabia without any reference to psychic distance (p1).'*

Fascinating work about the foundation of the 'born global' entity and the motivations of its founders is acknowledged in (Rasmussen, Madsen and Evangelista 2001). Their empirical work with Australian start up firms concludes by affirming

"an increasing number of firms ...do not follow the traditional stages pattern in their internationalisation process..." (p 76).

Arguments of geographic distance and its relationship to psychological distance appear to be increasingly overshadowed by commercial objectives. Official trade statistics of both Australia and NZ ([www.stats.govt.nz](http://www.stats.govt.nz)) point to both nations being Asia/Pacific players primarily. This point is made also by Brewer (2001). Export statistics are records of trade patterns and transcend arguments of geographical and psychological distance. 7 out of New Zealand's top 10 markets are on the Asia Pacific rim and 14 out of the top 20 are also (Statistics NZ, 3/04'). Both Australia and NZ export to countries that 'psychic distance paradox' would have us feeling very uncomfortable with.

Due to limited resources many 'born global' companies are not able to invest in market knowledge and market infrastructure on all markets. They are often only able to invest in close market contacts in very few country markets. Such factors may force them to use more low-commitment types of operation modes, often distributor agreements only/first. In addition they may not need or want a sales subsidiary since their targeted market segment may be too small to justify the investment (Madsen, Rasmussen and Servais 1999). However, contrary to this conventional stages approach to mode selection, is Zhao and Du (2000) work with high tech companies. They suggest innovative born global companies, possibly because of resource constraints, apply innovative solutions to questions of market selection and entry mode strategy (mode selection). And thus transcend 'in-direct' entry modes preferring instead to select market entry mode options further along the continuum towards partners that are committed to both product and market development (direct market entry). This is consistent also with the contemporary notions of 'shared or transferred risk' and return. Walton and Ashill's (2001) qualitative case study work also determined this emerging practice to select entry modes on a strategic basis despite resource constraints. However, while traditional and new or start-up firms need to operate and compete in the emerging global business environment an integrated approach to the 'drivers of change' still requires reflective strategy formation.

Knight, Bell and McNaughton are essentially concluding that such a conventional internationalisation ("incremental stages" - Johanson and Vahlne 1977, "Psychically close countries first" - Johanson & Vahlne 1990 nor more recent theories; "management innovations" – Reid 1981, Czinkota 1982) path, may not be exclusive to knowledge intensive or high tech industries. In agreement with Reid (1981), Knight, Bell and McNaughton (2001) consider these conventional theories are too

*'deterministic and their resultant models of internationalisation are 'individualistic, industry specific and contingent on resource availability... (p1).'*

Australia and New Zealand with small domestic markets are characterised by Small and Medium Enterprises (SMEs) that are obliged to look and operate outside their domestic markets. Both countries et. al. have organised productive capacity and marketing efficiencies around 'industry' collaboration. This may be an example of a business response (Box 4) whereby a raft of reasons (resource, capability and marketing) to cluster or collaborate as an industry body are resolved through an 'on-shore' mechanism like collaboration. In NZ, a large number of industry collaboration examples (see Table 2) can be cited from primary producers to high tech, consultancies and elaborate manufactures and other intellectual property rich companies/industries. Sectors within larger industries also organise themselves to collaboratively compete in a broader global marketplace.

TABLE 2: INDUSTRY COLLABORATION FROM SMALL ECONOMIES (AUSTRALIA AND NZ)

Primary industry	Fonterra (dairy), wool, fruit, meat, seafood and forestry. Agritech, floriculture, aquaculture...
Knowledge rich, IP rich, services	Consultancies (resource management, financial, engineering...), film/media, publishing, education, pharmaceuticals, biotech, nano-technologies, yacht building, information/communications technologies, software, telecommunications and electronics...

Industry (re) organisation is responsive to global forces, primarily global competition. Network theory and practice forms an important part of company strategy development and contemporary business organisation and might possibly be the single remaining academic theory of contemporary relevance that still goes some way to explain company internationalisation in this new millennium.

There is a growing body of literature (a dominant proponent being the International Marketing and Purchase Group) suggesting that SMEs may have to rely on networks and relationships to overcome disadvantages due to their small size as they internationalise (Madhok, 1997) and compete. This appears to be a response (Box 4) to address identified barriers to progress. Networking between companies is not new, but marketing/business literature on the subject is, relatively.

*“Firms do not survive and prosper solely through their own individual efforts, as each firm’s performance depends in important ways on the activities and performance of others and hence on the nature and quality of the direct and indirect relations a firm develops with these counterparts.”* (Wilkinson and Young 2000, page 4).

The relevance of the network models to SMEs and international marketing is important to this paper in terms of business strategy development and the responses to global forces and trends.

“The IMP Group describes the industrial system as a network of firms engaged in production, distribution...lasting business relationships with customers, distributors, suppliers...” (Turnbull, 1986 cited by Whitelock, (2002)). Just as company competitiveness is a key objective that facilitates local industry or the development of international networks, so too is the motivation to ‘transfer risk’ (Walton and Ashill 2001) to other partners and to better enhance network efficiencies in both forward and backward supply chains.

Jolly (1989) and Junkkari (2000) both argue that the growth in alliances is as a direct result of globalisation. The global logic of strategic alliances is based on the observation that the fixed costs of manufacturing, R&D, building and maintaining a brand, and operating a sales and distribution network on a global scale are too high for most companies to incur alone. When considering the limited resources of ‘born globals’ one can assume that all types of co-operative modes, ranging from partnership agreements through strategic alliances to networks, will play an especially important role in the implementation of their globalisation strategies (Junkkari 2000).

A number of models of *networks* and the internationalisation process (Evangelista 1996, Merrilees and Tiessen 1999) and network strategy development (Wilkinson, Mattsson and Easton 2000, Wilkinson and Young 2000) have been identified in the literature. Prior studies suggest that international marketing relationship networks vary by industry (Merrilees and Tiessen 1999, Madhok 1997). Literature also suggests that there are different types of internationalisation processes for SMEs and that there are more complex network processes by SMEs in high technology industries than in low technology industries (Merrilees and Tiessen 1999, Madhok 1997).

Wilkinson, Mattsson and Easton (2000) in their contemporary enhancement of Porter’s Value-Chain thinking (Porter 1990) suggest that companies are organised into ‘primary and ancillary’ networks surrounding the major elements of the ‘value chain.’ Company (or network) competitiveness, is determined by the linkages that occur between the firms. Importantly for this paper is that these company linkages (Fletcher 2000), and company interdependence is about ‘international supply chain management.’ These inter and intra company linkages transcend borders. Both forward and backward integration occurs where networks of partners formalise an arrangement between themselves thus modifying the Wilkinson, Mattsson and Easton (2000) model, page 7, further with vertical lines which are the national borders.

Incidental with the notion and practices of ‘networking’ and ‘supply chain management’ is the notion of ‘outsourcing.’ Management theorists might suggest these inter-company linkages are about concentrating on ‘core

competencies' Hamel and Prahalad (1994) and outsourcing or contracting out non-core same. Scholl (2001) suggests,

*"...experience with IT and transaction outsourcing has begun to give companies the confidence to undertake "strategic" outsourcing, handing over more integral aspects of business, p55."*

Scholl (2001) claims, behind the growth of outsourcing are a realisation that a specialist may be able to provide a routine service at lower cost, and with better technology. The links between outsourcing core or ancillary or routine functions to other companies although an example of inter company dependencies, are yet to be researched in international business arenas across the primary business functions as suggested in 'value chain' analysis. White (2001) suggests the next primary ingredient to be outsourced will be 'procurement.' Companies will likely continue to specialise.

Walton and Ashill (2001) suggests these inter-company linkages are about 'transferring risk' to other network partners in that companies needn't be good at all significant business functions. In support of Hamel and Prahalad thinking, companies contract out or transfer some 'economic, political, commercial, legal and cultural risk' on to local partners. It is conceivable that theory development might see companies not having to develop in-depth and significant in-house capability in each of these international knowledge areas and business functions in the future. And they can allow their network partners to 'manage' what they are inherently not, nor will ever be, competent at. This thinking appropriately belongs in this 'strategy development and business response' part of this paper. Potentially, this 'risk transfer' notion and the evolving importance of network theory may also encourage International Marketing text authors to rewrite chapters 3, 4, 5, 6 and 7 of their texts. The 'Political, Economic, Socio/cultural and Technology' (PEST) acronym used by management consulting firms might also be becoming redundant in a global world that values choice, speed, information, collaboration, market convergence, business cost reduction and increased consumer value - forces driving greater global integration.

Business response to the 'drivers of change' in the Asia/Pacific region at least, is challenging conventional stages approach in company 'market entry mode' choice also. Contemporary research into company internationalisation process is beginning to reveal that incremental 'in-direct' market entry (the appointment of an agent or distributor) is being 'leap-frogged' in favour of a more strategic approach to market entry and long term company competitiveness. Companies including start-up and born global, are considering and evaluating contemporary market entry mechanisms such as contract & licensed manufacturing, licensing technology transfer, equity intensive joint ventures and other strategic alliances, along the continuum towards total market investment mechanisms like wholly owned subsidiaries (Carstairs and Welch 1982, Reid 1984, Root 1987, Fletcher 2000, Walton and Ashill 2001), before they export or further internationalise.

New business-to-business models are emerging in response to these drivers of change, albeit not fast enough. Response speed is not commensurate with the speed of change. Perhaps the most dynamic challenge to conventional understandings of supply chain management comes from the 'distributor/market model.' There are companies in the dynamic Asian region whom have dedicated their entire businesses to introducing buyers to suppliers via the web. But none have matched the radically new model emerging that challenges conventional understandings of supply chain management, like Hong Kong based Li & Fung. Li & Fung understood globalisation trends meant 'specialisation.' The company itself has become a product of specialisation. They recognised company supply chains once consisted of some five links. Yet the reality of contemporary global competition means significantly more complex inter-company links and thus, interdependence. Li & Fung have focused on optimising supply chains for other companies facilitating links between multiple buyers with multiple suppliers. Participating firms pay transaction fees to the distributor (Li & Fung), which provides the order matching services.

This new business-to-business model relies on the interdependence of many companies and is an example of business response to changing global management - company specialisation and interdependence. This Li & Fung model is neither overly complex nor shrouded in magic. It's not selfishly vertical in orientation either. It is both a vertical and horizontal exchange that allows transactions across the diversity of companies and industries. We should explore this further to determine if models like this are potentially rewriting international supply chain management.

## **Conclusions and Future Research**

This paper is about shaping global marketing management in response to identifying and understanding a rapidly changing global environment. The paper suggests orthodox marketing practice will not be sustainable in the light of new values emerging by consumers and firms and driven by pervasive global forces and trends.

The direction of future research would seek to determine the extent and nature of the relationships between 'cognitive' business responses, and recognition of pervasive global forces. These forces can be made industry specific and therefore customised to reflect the reality of global trade that is industry specific. Future research would test the extent strategy development and response is 'intentional' and reflects understandings of global forces and trends and their impact. Theory testing (empirically) would likely be the goal of future research because the theory here is beyond a formative stage.

## **References**

Contact the Author for a list of references

# The Role of Indigenous Management Practices in Global Companies

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## Abstract

This study attempts to understand indigenous management practices in a host country using '*emic*' rather than using '*etic*' approach. Therefore to help practitioners and researchers in the field of globalization of companies to appreciate that better clarity of indigenous management practices will help design effective diversity management for a global company. To achieve this study draws on literature to discuss the limitations of culturally alien management practices in global companies. Then a common framework of how organisational effectiveness is affected by micro and macro levels (cultural, socio-economical, and political) of organisation and indigenous work culture is discussed. Lastly, the indigenous management framework is used to analyse three organisational stories to understand the impact of national culture and indigenous management practices on organisational effectiveness among global companies. Implications of study findings and further research opportunities in this area are discussed.

## Introduction

In globalisation, investment flows from developed countries to foreign investment hungry developing countries. Along with investments, the globalisation processes attempt to introduce Western management practices hoping that it would help achieve above-average return on investment [21]. This paper is not about convergence or divergence in management practices of global companies but explores whether unscrupulous transfer of Western management practices to a country of focus through globalization is effective or not. It further attempts to understand indigenous management practices in a host country to help design diversity management practices for global companies using *emic*, an 'insider' view, rather than using *etic*, an 'outsider' view [1]. For example, China is labelled as having a high-context culture by Onkvisit and Shaw [33] based on observing Chinese behaviour, which is an 'outsider' view. But Jizhong and Shan [22] in their article have highlighted how symbols (Chinese scripts) and forms of thinking of the traditional Chinese (originated 2000 years ago) are understood based on the context it is used in, and related to Chinese culture. This is another explanation why Chinese behaviour is high-context based, which is an 'insider' view.

Many management theories and practices used in current management literature have originated from Western countries and particularly from the USA and that have benefited the industrialised world for its economic achievements [21]. Hence, many developing countries choose to use these Western management practices grossly disregarding the fundamental differences in socio-cultural constraints, local conditions and circumstances. Why do many developing countries blindly believe that Western management practices are transferable to their countries? This can be explained by 'social comparison' in the social identity theory [40]. In social comparison people compare their own group with others and look for reasons why the other group is better and identify themselves with that group.

The term 'Western' management practices are too broad based because even among Western countries the cultural values are different, for example USA and Australia [44]; USA and Scandinavia [15]. Hence I have used a term, 'culturally-alien' management practices, to refer to management concepts and practices that are not evolved or commonly used in a particular country of focus.

I am sure many management theorists will have reservations in accepting the indigenous management practices argument because they might believe that management practices evolved through the period of Feudalism till socio-technology. Hence management practices have to be innovative at every evolutionary stage to make it work effectively for the organisation. My contention here is that indigenous management practices evolved along with the country's national culture, and is time tested. Therefore adequate consideration has to be given to develop synergies between the indigenous management practices of the country of focus and company's management

practices that are evolved from 'alien' cultures [2] [4]. This article is not about stereotyping indigenous management practices, but attempts to help practitioners and researchers in the field of globalization of companies to understand that better clarity of indigenous management practices will help design effective diversity management for a global company.

Taking up this notion, firstly this paper draws on literature to discuss the limitations of culturally alien management practices in global companies. Secondly a common framework of how organisational effectiveness is affected by micro and macro levels (cultural, socio-economical, and political) of organisation and indigenous work culture is discussed. This framework has been evolved from Kanungo and Jaeger's [23] model of socio-cultural influence on organisational effectiveness. Thirdly, the indigenous management framework is used to analyse three case studies to understand the impact of national culture and indigenous management practices on organisational effectiveness among global companies.

## **Understanding of Previous Literature**

### **Civilization and Culture**

Work is a pattern of behaviour, which gives a person a sense of identity and purpose and may be necessary for mental well being. It is not very clear whether desire to work is an innate behaviour but it is evident that human beings' capacity to learn and persist goal directed behaviour is an innate pattern that is different from animals. The learnt behaviour of work is a product of cultural factors: through historical processes a society develops certain attitudes to work and ways of working, and these are passed on to children in the course of education and other kinds of socialization. Different civilizations in the past and different nations (like Japan, South Korea etc) in the contemporary world have evolved very different work attitudes and types of organisation.

The human being is a tool-making animal and it is tool making that constitutes civilization. The civilization of a race is simply the sum total of its achievements in adjusting itself to its environment. Advancement in civilization depends upon the improvement of tools (eg. Stone Age, the Bronze Age, the Iron Age, steam, the Electricity, Electronic and Digital Age). The difference between East and West is primarily based on the tools used. The West has moved far ahead because of the tools devised to enable the conquest of nature and the multiplication of the power to do work. Oriental civilization is based on people, and Western civilization is based on power of machinery and hence the cultural values towards work are also different. Now we will try to understand culture and how it affects values in general and work values in particular.

The Webster's New Collegiate Dictionary defines culture as, "the integrated pattern of human behaviour that includes thought, speech, action and artifacts and depends on person's capacity for learning and transmitting knowledge to succeeding generations." Williams [46] explained three general categories in the definition of culture. Firstly, it is considered as the 'ideal', in which culture is a state or process of human perfection, in terms of certain absolute or universal values. Secondly, there is the 'documentary', in which culture is the body of intellectual and imaginative works that is the details of the language, form and convention, which are described and valued. Finally, third, there is the 'social' definition of culture, in which culture is a description of a particular way of life, which expresses certain meanings and value in institutions and ordinary behaviour. The third definition is more appropriate to the present article because it reflects how culture affects values and behaviour in a society.

Culture also influences behaviour in a group and that leads to sub-culture. Clarke, Hall, Jefferson, and Roberts[13] explain that culture is the way the social relations of a group are structured and shaped, but it is also the way those social relations are experienced, understood and interpreted. Groups that exist within a society might share a common historical condition but they might be ranked different based on their productive relations, wealth and power and this leads to the dominant and subordinate culture. The dominant culture of a complex society is never a homogeneous structure. It is layered, reflecting different interests within the dominant class, containing different traces of religious ideas within a secular culture, as well as emergent elements in the present such as multiculturalism. It is more appropriate to use a term 'cultures' instead of culture because it is no more one dominant culture, but has traces of coexisting subordinate culture in the dominant culture itself. But in this article I have used the term 'culture' reflecting 'cultures', that is a dominant culture with traces of other subordinate cultures.

Culture and sub-culture moulds employees' values and values influence employees' perceptions and decisions. Values represent stable, long-lasting beliefs about what is important. They are evaluative standards that help us define what is right or wrong, good or bad, in the world [35]. In each country there are different work values because of the dominant and subordinate cultures, which coexist in that country.

Oscar Wilde's well known saying, "a cynic is a man who knows the price of everything and the values of nothing," is a poet's reminder that we tend to view everything in life in quantifiable 'fact' and/or non-quantifiable 'value' terms. The relative importance of 'facts' to 'values' in top-level decision making will vary depending on situations but more often managers make decisions because they value certain ways of action in spite of the price they must pay.

#### **East and West: Business Culture**

Cultural differences are not solely a concern of East and West because the countries referred as East and West are not homogeneous, and hence this reference is not going to be useful in future. For example, there are cultural differences between Japanese and Chinese in respect to data processing [30], and between French and British firms in respect of hierarchy and authority [17] leading to different management practices. The reference to 'East' and 'West' is contrary to the core theme of this article, but its usage is only because of the limited literature in national culture and indigenous management practices compared to literature under the umbrella of East and West [17]. One of the objectives of this article is itself a step forward in developing and collating literature of indigenous management practices based on organisational stories.

#### **Limitation of Culturally-Alien Management Practices**

Developed and developing countries are contrasted on the characteristics of their socio-cultural environment because of their views on the nature of causation and control over life outcomes. Most Western societies believe that they have considerable control over their environment and of events in their life, whereas developing societies perceive themselves as being at the mercy of events in the environment. Thus, in developing countries, the notion of context dependence (external locus of control) will be more likely to guide their management practices in organisations and for Western societies it would be internal locus of control. Another difference in cultural assumptions, which affect management practices, is the beliefs about human potential and malleability [21]. Western societies believe that human potential is unlimited and highly creative; in contrast developing countries view it as more or less fixed with limited potential.

### **Need for Indigenous Management Practices**

Management practices are not new to any civilization because every civilization managed its environment and scarce resources (money, people etc) effectively to survive and prosper. In industrial countries the prosperity of economic achievement is far more than the developing countries, and hence many developing countries blindly adopted the Western management theories hoping to achieve economic prosperity. Uncritical transfer of management theories and techniques based on Western ideologies and value systems has in many ways contributed to organisational inefficiency and ineffectiveness in the developing countries as well as in other countries which does not share the same value systems [23].

Employees' assumptions, beliefs and values are moulded by the culture to which they belong. Basic assumptions and premises are fairly deep rooted in an individual, and hence the culture cannot be changed to meet the demands of management. In a nutshell, culture facilitates and/or inhibits behaviour subconsciously. The impact of culture on indigenous management practices will be twofold. First, the management practices are natural hence they reflect the value of the local culture and it will not include behaviour which runs counter to the culture. Second, it influences employee's perception of the external and internal environments, and hence the evaluation of those factors leading to decision-making [31].

The external and internal environments constantly influence organisation, and the management practices effectively help manage a good fit between these two environments to achieve organisational effectiveness. Uncritical adaptation of Western management strategies is neither necessary nor desirable for managing organisations in developing and other countries [23]. It is important for these countries to develop relevant management theories and practices based on the local conditions and circumstances, and socio-cultural forces. Thus

it is significant to recognize explicitly the context of economic, political, and cultural differences between the developed and the developing countries and appropriately to develop and modify the knowledge and technology that is best suited to managing organisations in these areas. This is quite evident in the newly industrialized Asian countries such as South Korea, Taiwan, Singapore and Hong Kong as well as in Japan, where their management styles and work attitudes are rooted in Confucian values, familism, and institutional structures that are not necessarily Euro-American [38].

## **Criticism of Culture Specific Studies**

In the past, many social scientists and social advocates criticized culture specific studies. Some believe that such inquiry is nothing but unscientific stereotyping, usually with malevolent intent and effect. Some others assert that culture studies obscure the uniqueness of the individual and also lead to racism and bigotry. It is also believed that cross-cultural comparisons are used to legitimize cultural generalization by comparing it with other cultures and but this in no way reduces the misuse to oppress or persecute a particular group [29].

Yes, it is true that culture specific studies are like a double-edged knife, if it is not used carefully and judiciously it will oppress or persecute a particular group. The negative aspect of the culture studies should not over shadow the positive aspect of it. The positive aspect of culture studies in understanding indigenous management studies is its use in diversity management. In diversity management it is accepted that individuals are different and it is well documented in psychology that culture is one of the determinants of individual differences. Hence using the understanding of culture based individual differences for managerial decision-making is very useful in the global management context. For example, team based management is becoming the more common human resource (HR) management practice but the Western management structure is not suitable for such management practices. Hence we can draw from the African, Indian, Chinese and other Eastern social structure, which enhances group based performance and achievement, and apply it in designing Western organisation structure so as to be successful in using team-based management. There can be similar applications of indigenous culture based management practices in diversity management.

## **Indigenous Management Model**

The Fig. 1 provides a framework to study the impact of external and internal environments and indigenous management practices on organisational effectiveness. Also the factors which are important to measure and understand each of the variables in the model. The political, economical and social conditions of a country are the external variables shown in the model that affect cultural values. These cultural values subsequently mould and shape the indigenous management practices in a country. In the present context it will be interesting to explore the compatibility of national cultural values of a country to the alien (Western) management practices, and also to the indigenous management practices.

Organisational functioning depends on the behaviour and attitudes of people within a given society. The socio-cultural environment within which the organisation operates profoundly influences organisational behaviour (OB) and hence the model (Fig. 1) is based on the OB model. The characteristics of management practice can be understood based on the three levels of OB study (individual, group and system level). The determinants of each level of OB are moulded by the socio-cultural environment as well as by the management practices. The determinants of each level that are of main focus in this article are provided in Table 1.

TABLE 1: DETERMINANTS OF OB TO UNDERSTAND MANAGEMENT PRACTICES

OB level	Determinants
Individual level	<ul style="list-style-type: none"> <li>• Motivation</li> <li>• Perception</li> <li>• Decision making</li> <li>• Values</li> </ul>
Group level	<ul style="list-style-type: none"> <li>• Group structure</li> <li>• Power &amp; politics</li> <li>• Leadership</li> <li>• Conflict &amp; conflict resolution</li> </ul>
Organisation system	<ul style="list-style-type: none"> <li>• Technology</li> <li>• Organisation design &amp; structure</li> <li>• Behaviour at strategic level</li> </ul>

The management practices will have different impact on these determinants according to the cultural values and beliefs in a society. To understand the characteristics of management practices it is possible to use these determinants. For example, Lane and DiStefano [26] studied the effect of the value orientation of Kluckhohn and Strodtbeck [25] on management behaviour and argued that goal setting would tend to be “qualified, hesitant and vague”, and that budget systems would be futile with predetermined outcomes among developing countries. The feeling of being subjugated to nature and context dependent would, in effect, make specific planning and budgeting seem pointless, as events could alter their expected outcomes.

Cultural values are studied using different frameworks like Kluckhorn-Strodtbeck [25], Hofstede [20], Trompenaars [41] and Schwartz [37] framework. Each one of these authors has chosen a different approach to understand cultural values and management practices. Schwartz approach has combined Kluckhorn-Strodtbeck and Hofstede approach, and has provided 11 broad based domains, which can be useful for understanding different national cultural values. The Domains are self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, spirituality, benevolence and universalism.

International business and cross-cultural management studies recognize the importance of socio-cultural environmental variables as a major determinant of organisational effectiveness within a given country and across various countries in the world [24]. But in this article, to understand indigenous and alien management practices in an organisation the behavioural determinants are used. Now that the model has provided the framework to understand the impact of national culture on organisational effectiveness, it is important to explain how it is going to be studied.

## Methods for Studying Indigenous Management Practices

Using the model (Fig. 1) an attempt is made to explore the effect of indigenous management practices on organisational effectiveness. Also the model highlights that based on the management practices for different behavioural determinants in the three levels of an organisation, it is possible to understand whether indigenous or/and alien management practices are used in an organisation. Organisational effectiveness, productivity, absenteeism, employee turnover and job satisfaction are the products of different management practices in an organisation, and the latter in turn is influenced by national culture.

In this study the characteristics to distinguish indigenous and culturally alien management practices in organisations are understood based on the organisational stories told by three top-level managers from different global companies. Subsequently the organisational stories are used to study the impact of those characteristics on organisational effectiveness too.

The story telling literature provides a different perspective to study organisational behaviour [6], helping to understand indigenous and alien management practices based on the implicit and explicit themes in the stories narrated. Organisational stories are the primary qualitative means of collective understanding of an organisation [9], specifically if the events being described are complex and perhaps contradictory [7] [10]. In this article, a story is

operationally defined as explanations provided by the participants to explain the cultural reasons for a particular management practice relating to the three levels of organisational behaviour. This operational definition is based on Weick's [42] definition of stories, that is, stories reflect individual sense making. Further, stories by themselves do not create understanding in employees or others [8] but assist in describing and making sense of corporate practices [6].

The three stories discussed in this study are based on the interviews conducted with three top-level managers currently working in Australia. Participant-1 is an Australian, participant-2 and participant-3 is born in India and China respectively, but naturalized Australian citizens. All the three participants are above 45 years of age, participant-1 is a female and the other two are males. They all worked at least once in a global company in Australia, India and China during their respective professional careers. Three thirty-minute sessions were used to document the organisational stories, which were prompted by cues relating to organisational behaviour determinants. The author conducted all interviews.

The story lines (cues) used in the interview relate to dominant culture(s) and indigenous management practices in employee motivation, leadership, and organisational structure of a global company in participants country of origin. Further, the effectiveness and ineffectiveness of indigenous and culturally alien management practices used in achieving global company's goals are also probed.

The stories narrated by the participants were recorded and fully transcribed and classified based on indigenous and alien management practices debate. Participants' explanations to different management practices were used for analysis, that is, when a management practice is identified as indigenous management practice then further cultural reasons for that practice was probed. When the managers narrated any culturally alien management practices in the stories, then the characteristic of 'constructive imitation' by Alattas cited in Sapre [36] was used for analysis. "Constructive imitation is a law of social law and is characterized by the following:

- 1) it is based on a conscious and rational choice;
- 2) it supports an existing and sound value;
- 3) it would hamper the development of the society concerned if not adopted;
- 4) it does not disrupt other aspects of social life considered more valuable
- 5) it enters into the collective value system; and
- 6) it is not the effect of manipulation by external groups, motivated by their own interests".

In this study, except characteristic (3) and (4), all other four characteristics were used for analysis of culturally alien management practices. In analysis the 6<sup>th</sup> characteristic is further split into two separate characteristics (see Table 2) for the purpose of analysis. This approach to story analysis is considered acceptable, because the whole story was told by participants to explain the context and explanation of various management practices, and their relationship with organisational effectiveness, whereas theme coded approach has less safeguards to capture the whole story. In strategic management research it is common to use manager's reflections to measure company's performance – organisational effectiveness [14] [28]. Manager's mental map is based on social construction and this reflects the reality [6] as described by the participants. All participants did not narrate their stories for all the cues (story-line) used in this article, but overall they have provided indigenous and culturally alien management practices explanations for many organisational behaviour determinants.

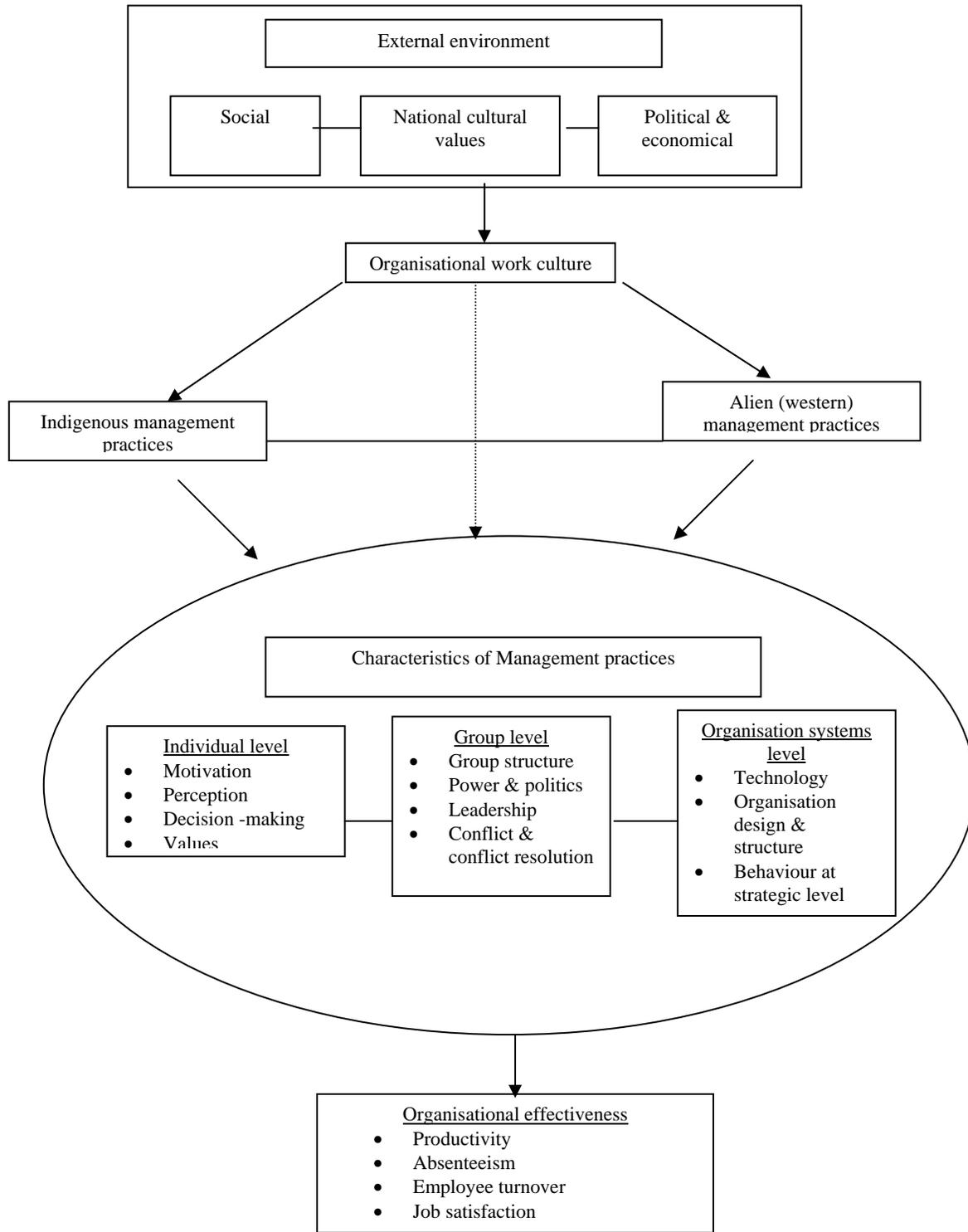


FIG. 1: THE IMPACT OF EXTERNAL AND INTERNAL ENVIRONMENT ON INDIGENOUS AND CULTURALLY ALIEN MANAGEMENT PRACTICES

## Analysis Summary

The participants provided multiple cultural explanations (both culturally alien and indigenous) for different management practices used in their organisations. Their stories pointed that they have used many indigenous and culturally alien management practices in individual, group and organisational structure levels of organisational behaviour. Initially indigenous management practices in Australia, India and China are discussed using indigenous and culturally alien management practices model (Fig. 1). Subsequently, culturally alien management practices in these countries are analyzed with Alatas' characteristics of constructive imitation.

### **Indigenous Management Practice Debate**

#### **National culture**

Individual's assumptions, beliefs and values are moulded by the culture to which they belong. Basic assumptions and premises are fairly deep rooted in an individual and hence the individual's culture cannot be changed to meet the demands of management. In a nutshell our culture facilitates and/or inhibits our behaviour subconsciously and that moulds organisational work culture. The participants believe that Australia, China and India have unique national culture, parts of their respective stories detailed below highlight their predominant views about national culture.

*Participant 1 (Australia): "Classical Anglo-Saxon culture, changed towards more 'egalitarian' culture – opportunity to all, as migration increased from other parts of the world. Our newspapers report more about 'individuals are being disadvantaged' to highlight the egalitarian culture. Many Australians love sports, and that infers their positive demonstration of energy, competitive nature and fighting spirit".*

*Participant 2 (India): "In India, employees are driven by their cultural value of being 'duty' bound (Karma). Work is viewed as an extension of their personal lives; people rarely differentiate between work and personal life. Also another important cultural value is where they believe that their life is predetermined at the time of birth. This does not mean that they believe in 'fate' and don't work hard. This simply means that they strive for excellence in whatever they do without looking forward to any tangible reward, this part of their value is reinforced by 'Karma' as discussed earlier in this part".*

*Participant 3 (China): "The national culture of Chinese is context based. This can be traced to the evolution of Chinese language. Initially Chinese used pictures to communicate to others and subsequently scripts were developed. Many non-Chinese who learn Chinese know that it is difficult to learn to write Chinese and it is more difficult to speak because the Chinese language uses tone-based explanations. For example the word 'Gong' it can mean sugar, soup, hot or lie down based on the tone of the speaker. The Chinese language influences their culture, and hence the culture is also more context-based".*

It is clearly evident from the snapshot of stories about national culture that it is unique, and it does influence employees' work culture in respective countries. An understanding of national culture will provide a better platform to explain and appreciate indigenous management practices in a country. Now the relationship between national culture and indigenous management practices are explored, as depicted in the model (Fig. 1).

#### **Importance and Application of Indigenous Management Practices**

*Participant 1 (Australia): "The organisation I am currently working with is a multinational company. The Australian operation has much flatter organisational structure compared to other locations. This is because of the egalitarian culture, the power relationship between levels of organisation is low, and leader's 'earn' respect rather than by virtue of authority. A good understanding of this is very important for a manager to be successful in Australian organisations".*

*Participant 2 (India): "As an example, let us discuss about the implementation of organisational change in India. It is less difficult than in Western countries because most Indians believe that such an incident is predetermined in their lives and hence they feel that they can do very little to resist such situations. Therefore they are less anxious, accept changes, and move on with their lives more positively".*

*Participant 3 (China): "When we used to receive delegations from China for business purpose, I used to suggest to the CEO of the company (Australian) that establishing personal relationship is very important in doing business with Chinese. Invite the Chinese delegation for a BBQ on weekends and let them know about your family and you also should know about their family. Businesses are done based on personal level networks instead of it*

*being done in formal meetings. This is because in China, the host makes them available one hundred percent of their time to their guests, and it is not like in Australia where we believe that work is eight-hour shifts”.*

Clearly the snapshots of stories infer that the debate about indigenous management practices is important for businesses. It highlights that ‘emic’ approach to understand the cultural reasons for management practices is useful rather than just learning to replicate a culture specific management practice as in cross-cultural context.

#### **Characteristics of Management Practices**

Motivation, leadership and organisational structure are the only determinants that are chosen to discuss in this study from the respective levels of organisational behaviour (see Fig. 1). It was not possible to include all the determinants because it will be too much to cover in this article.

##### **Individual OB Level - Motivation**

*Participant 1 (Australia): “Money is an important motivator to some extent, but for Australians collegiality and commitment to work relationship are also very important. I have heard from employees leaving company to take up another role for less money in a different company because of negative work relationships. This is because of the egalitarian culture of Australia”.*

*Participant 2 (India): “It is not only important to entice Indian employees’ hearts and minds as stated in the Western literature, but also the soul of employees’. That is, Indians believe that performing their duties (Karma) is a means to liberate themselves from the clutches of re-birth. Hence any tangible and/or intangible motivators used in the Indian context should also focus on the soul of employees”.*

*Participant 3 (China): “Monitory rewards in China have become more common only in the last 15 years, it was political or spiritual motivation that was important before that. In China, anyway there are no significant monitory gains for employees because the government administers it centrally. Managers in this context invest in emotional network like establishing paternalistic relationship with the employees’ family instead of monetary reward promises”.*

##### **Group OB Level - Leadership style**

Participants 1 and 2 alone provided information about leadership style, and there was no information about leadership style in the story narrated by participant 3.

*Participant 1 (Australia): Leadership style to manage Australians is distinct. The managers/leaders are more casual and egalitarian in approach. Power distance between top-level managers and the front line staff is low compared to other countries where I worked before this job. Leaders are expected to be a coach and use participative approach in decision making”.*

*Participant 2 (India): “It is common that many managers use paternalistic style leadership, but outsiders view it as autocratic style leadership. Paternalistic style leadership signifies that managers care about employees’ welfare and betterment rather than enforcing their ideas and opinions to their subordinates”.*

##### **Organisation Systems OB Level - Organisational structure**

*Participant 1 (Australia): “Flat organisation structure is more common in Australia. Front line staff can speak more freely with the top management staff. Communication from the top managers also happens more freely with the front-line staff. This means that the decision making process is more participative compared to the other cultures where I have worked”.*

*Participant 2 (India): “Power distance between different levels in organisation is high. This because the society is highly structured and hence it is a common practice for the managers to inform subordinates what to do, and subordinates also wait for instructions from managers before starting any task”.*

*Participant 3 (China): “Over the years organisational structure has become more centralized from the beginning of dynasty rule in China. Today organisational structure is also centralized because of political reasons and political culture in China”.*

##### **Indigenous Management Practices and Organisational Effectiveness**

*Participant 1 (Australia): “Australia is a multi-cultural country and values diversity in its culture. As managers we try to use diversity management practices in our company, which means that our work norms and practices are not just based on Australian cultural values alone. We try to adapt different cultural values in our company, and hence it is challenging for me to just pick on Australian indigenous management practices and state how it has affected organisational effectiveness. But I am certain that the understanding of egalitarian culture in the Australian context*

has made me appreciate diversity more than ever, and many employees have highlighted to me that they enjoy working in such work culture”.

*Participant 2 (India): “There are three types of organisations in India. Firstly, multinational companies, which uses predominantly Western management practices. Secondly, Hybrid companies that uses both indigenous and Western management practices. For example, in marketing function the companies use predominantly Western management practice, and in HR function more indigenous management practices are tried. Thirdly, small businesses that are not exposed to Western management practices continue to use indigenous management practices. I believe that in India more than 72 percent of employment is created by small businesses, and hence I assume that those businesses are effective in achieving their goals by using indigenous management practices. I cannot say for certain that my assumption is true, but I strongly believe in it”.*

*Participant 3 (China): “It is challenging to state that organisational effectiveness is achieved in China using indigenous management practices because till recently all companies were owned and managed by the government. But I can say that overseas Chinese (those Chinese living other than Mainland China including Hong Kong) also have similar cultural values as Chinese, and they use indigenous management practices in their businesses. Overseas Chinese are successful in their business ventures and hence it can be inferred that indigenous management practices do contribute to organisational effectiveness”.*

#### **Culturally Alien Management Practice Debate**

An attempt is made in this study to explore the basis of imitation of culturally alien management practices in an organisation based on Alatas’ characteristics of constructive imitation. The participants were asked to provide a brief response to the characteristics provided in the Table 2, and subsequently asked to explain descriptively the brief responses provided by them. Table 2 captures the brief responses provided by the participants regarding the characteristics of constructive imitation of culturally alien management practices.

Responses from all three participants indicate that there was no conscious and rational choice made by the companies in imitating culturally alien management practices in the host-country indigenous companies. But analysing characteristic-4 in Table 2, it reveals that the participants feel that culturally alien management practices are not the effect of external group’s manipulation. Further analysis for descriptive responses for the characteristics-1 and -4, it was found that the three participants’ focus of companies for analyses were multinational companies in respective host countries. Hence the culturally alien management practices are alien to the host countries but not to the companies. Moreover, in this study all the companies of focus were multinational companies, they are from Western countries, and they follow their own management practices irrespective of the country of business operations. This is supported by participants’ responses to characteristic-2 that culturally alien management practices are not compatible to employees’ existing values in their respective countries.

**TABLE 2: CHARACTERISTICS OF CONSTRUCTIVE IMITATION OF CULTURALLY ALIEN MANAGEMENT PRACTICES IN THE HOST-COUNTRY INDIGENOUS COMPANY**

<b>Characteristics of constructive imitation</b>	<b>P1 Australia</b>	<b>P2 India</b>	<b>P3 China</b>
1. The culturally alien management practices used in the host-country indigenous company are based on a conscious and rational choice of the company.	No	No	No
2. Does the culturally alien management practice support an existing and sound value of employees in the host-country indigenous company?	No	No	No
3. Can culturally alien management practices enter into the collective value system of employees in the host-country indigenous?	Yes	To some extent	Slowly enforced by the company
4. Culturally alien management practices in the host-country indigenous company are not the effect of manipulation by external groups (like multinational, global companies etc.).	Yes	Yes	Yes
5. Culturally alien management practices in the host-country indigenous company are motivated by company’s interests	Yes	Yes	Yes

In summary, the stories provided in this study narrate different indigenous management practices used in organisations of focus, and also how it influences organisational effectiveness. The participants have indicated that there are indigenous management practices and culturally alien management practices in large companies, but this study failed TO establish the relationship between indigenous management practices and organisational effectiveness.

There are two interesting findings in this study regarding imitation of culturally alien management practices in the host country indigenous companies. Firstly, continuous exposure of culturally alien management practices by companies to their employees can make such values as part of any established value systems of employees in all three countries. This means that employees' value systems evolve over a period of time based on compatibility of new and existing value systems. Secondly, participants in this study believe that company's interests motivate culturally alien management practices, and it didn't matter whether it matched with employees' value systems or not.

## Implications

### **Indigenous and Culturally Alien Management Practices in an Australian Company**

The snapshot of stories provided by participant-1 highlight that Australians have egalitarian culture, which is a dominant culture, and their management practices are influenced by the egalitarian management style [11] [27]. Westwood and Posner [45] have revealed that the personal values held by managers have increasingly been shown to have an impact on their behaviour and performance and, ultimately, on organisational effectiveness. Although in this study the link between personal values and organisational effectiveness is supported, it is not clear whether indigenous management practices in Australia have impact on organisational effectiveness. This is because participant-1 believes that Australia is a multi-cultural society and hence in Australia diversity management is a preferred approach to indigenous management practices. The important finding is that in Australia managers practice diversity management (practices drawn from different cultures) in their approach without being aware of the cultural reasons for it, which supports the assumption in this study that it is important to be aware of the cultural reasons for such practices rather than just replicating the practice without '*emic*' understanding.

In understanding imitation of culturally alien management practices, participant-1 has indicated that convergence of management practices in global companies is because of trying to achieve level of consistency in their management practices among operations in other geographical regions. This highlights the 'institutional transferability' – the practice of the affiliates of multinationals exporting their management practices to their host country employees [4]. The data from this study reveals that culturally alien management practices in the company does not support existing and local values of employees, and Bartlett, Lawler, Bae, Chen and Wan feels that this lack of synergy between these cultures would pose problems to employees. But in the present study there was no indication of this. This may be because of 'strong' organisation culture [19], which is based on alien culture, compared to the 'weak' indigenous culture.

### **Indigenous and Culturally Alien Management Practices in an Indian Company**

The stories about indigenous management practices in an Indian company highlights the '*emic*' understanding of the national culture compared to the '*etic*' understanding of the same culture reported in Aycan, Kanungo, Mendonca, Yu, Deller, Stahl, and Kurshid [2] study. In the same study it is reported that Radhakrishnan [34] suggests, "unfortunately the theory of Karma became confused with fatality in India.... It was made into an excuse for inertia and timidity and was turned into a message of despair and not of hope". But participant-2 in this study has pointed that the confusion between 'Karma' and 'fatality' is not true. Indian employees use 'Karma' to perform their organisational duties as an extension of their own life, and hence work harder to liberate their soul from re-births. Beer [5] examined the *Bhagavad Gita* (a part of the epic *Mahabharata* c. 900 BC) and explains 'Karma' that deals with devotion to duty without attachment or desire for reward. Further, the participant believes that fatalism is used to overcome effectively the uncertainties during organisational changes, being complacent and accepting the state of despair in a person's life is an effective way in coping with any change in life. Therefore in this study the participant has indicated that there exist no confusion between 'Karma' and 'fatalism' among Indian employees in particular.

The other indigenous management practice discussed by the participant in this study is about 'paternalism'. He has stated that in Indian companies the common leadership style used is paternalism, and this is not the leadership style how authoritarianism discussed in Western cultural context [32], but it is about guidance, protection, nurturance and care to the subordinate. In return, the role of subordinate is to be loyal and deferent to the superior [2]. The participant's stories also highlight that paternalistic leadership style in the workplace is not about authoritarianism, which is supported by Aycan and Kanungo's [3] finding that paternalism is strongly negatively correlated with authoritarianism. A great Indian poet Kalidasa said, "a leader should be harder than a thunderbolt and softer than flowers".

The participant has indicated in his stories that culturally alien management practices are commonly used in multinational and hybrid large companies, and small companies tend to use more of indigenous management practices in India. Bartlett, Lawler, Bae, Chen and Wan [4] study supports the participants' stories, where they have found that multinational companies tend to use uniform policies and practices across different geographical locations. Diffusion of knowledge and imitation are also likely to influence indigenous firms of a country to become hybrid companies [18].

A significant finding from this study is that to understand indigenous management practices in India it is important to study small businesses instead of multinational and large hybrid indigenous firms in the country. Many studies on this topic highlight that convergence of traditional and reform values imposed by external environment [12], convergence in policies and practices for uniformity among multinational companies and imitation by host-country indigenous firms [4], and India's managers exposure to Western ideas through its system of management (higher) education [36] has lead to the mindless adaptation of culturally-alien management practices. The point I would like to make here is that the mindless adaptation of culturally alien management practices in Indian companies is because of external pressures, and hence managers have limited options to try indigenous management practices. If research could prove that small businesses in India are still successful in achieving their company goals in spite of indigenous management practices, then it will valuable to facilitate dispersion of indigenous management practices from small business to large indigenous firms in the country. Now the Western literature based management education in India does not give many opportunities for prospective managers (current students) to appreciate the role of indigenous management practices in managing businesses in India.

#### **Indigenous and Culturally Alien Management Practices in a Chinese Company**

The snapshot of stories narrated by participant-3 highlight the basis for context-based Chinese culture, and this is supported by Jizhong and Shan's [22] article on how Chinese traditional forms of thinking was moulded by the language development. Chinese language development as a basis for the explanation of context-based culture in China is a significant contribution made by this study to the cross-cultural management literature. Also this study highlights the role of '*guanxi*' (special relationships) in Chinese indigenous management practices and the reason that 'real decisions are made outside of the meeting – indirect communication' [39].

Participant-3 indicated in his stories that organisational structure in Chinese companies is hierarchical. Chinese see old age as a glorious thing and respect seniority because of the rich experience and wide knowledge they have acquired. Hence seniors lead the company and inturn the company becomes more hierarchical based on 'gunxi' [43]. Decision-making in Chinese companies is highly centralised, this can be traced back to Confucianism in China. Confucius (551 BC) endorsed a 'Paternalistic government' in which the leader is kind and honourable and the subjects are respectful and obedient. In this study, based on the stories there is no clear relationship between indigenous management practices and organisational effectiveness in a Chinese company, but inference from overseas Chinese with similar cultural values [16] indicates that indigenous management practices do impact organisational effectiveness. Regarding culturally alien management practices in a Chinese company, it is revealed that convergence of management practices is the common reason along with 'institutional transferability'. This means that culturally alien management practices in Chinese company does not support existing and local values of employees, and hence it would pose problems to employees in the future.

In conclusion, the stories provided in this study explain the cultural reasons for indigenous management behaviour, but the participants failed to reveal the cultural basis for the culturally alien management practices, which are adopted in their company. This is because of unscrupulous imitation of culturally alien management practices or

institutional transferability of management practices by multinationals to their host country employees. Although companies of focus have a few indigenous management practices and more culturally alien management practices, the managers in these companies have limited cultural understanding of those culturally alien management practices. This highlights the lack of 'emic' understanding of culturally alien management practices, and hence the diversity management in these companies are just based on 'etic' approach. It has become clear to certain extent that 'etic' approach in diversity management is more common than 'emic' approach. It is useful to conduct further research on the effectiveness of 'etic' and 'emic' approach on implementing diversity management in companies.

The participants have indicated that there are indigenous management practices and culturally alien management practices in large companies, but this study failed to establish the relationship between indigenous management practices and organisational effectiveness. The framework to understand indigenous and culturally alien management practices is found to be useful in extracting useful information from the stories narrated by the participants.

There are two interesting findings in this study regarding imitation of culturally alien management practices in the host country indigenous companies. Firstly, continuous exposure of culturally alien management practices by companies to their employees can make such values as part of any established value systems of employees in all three countries. Secondly, participants in this study believe that company's interests motivate culturally alien management practices, and it didn't matter whether it matched with employees' value systems or not.

The research findings are limited because of the modest sample size and geographical area. Culture is important in understanding management behaviour and organisation system, but other factors like political and economical structure are also important but it was not included in this study. The organisational stories narrated by the participants are a good source of qualitative understanding of indigenous management practices, but it lacks generalizability. This area is a promising focus for further research. The purpose of this study is to understand the importance of indigenous management practices in large companies, a small step in the ever-lasting journey of understanding national and organisational culture.

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# Strategic Partnerships as a Factor of Competitive Advantage in European Union

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## Abstract

The goal of the article is to introduce strategic partnerships as a factor of competitive advantage that can be used in non-standard situations according to formulation of goals and ways of reaching the goals too. We show strategic partnerships as a useful tool by introduction of conception of competitiveness of regions. Competitiveness of regions is a strategic project that is step by step defined, modified, presented and achieved in European Union. We also try to name particular relationships and relations that can be influenced and lead to success that wouldn't be possible to reach without regional development. A term strategic partnership will be used according to book of Eva Smolková [7]. Third part of the article shows some examples of projects of regional development in Slovak Republic based on usage of strategic tools and partnerships.

## Strategic Goals of European Union

Strategic goal of European union is set as follows: "To become the most competitive and most dynamic economy in the world by 2010 based on knowledge and taking care on sustainable development and better social environment." [9] According to goal of sustainable development European Union set basis for understanding region as an organism. With no doubts it is a progressive approach not only influencing the Union but also enabling it to deal with problem of unequal and heterogeneous development of individual regions and parts of the Union as well as resolve differences given by history and cultures.

It is obvious European Union supports regional development heavily. The support mostly comes from the state into which the certain region belongs. Specific goals can be defined as regional or inter-regional according to specific characteristics of the regions. Especially in cases of geographical conditions such as mountains an inter-regional cooperation and coordination of the goals and activities is very welcomed. In these particular cases there is no importance of state borders and the support comes from the Union.

Development of small and medium enterprises was defined as a key factor of reaching the strategic goal of European Union. [9] Small and medium enterprises play the main role in regional competitiveness. They form the character and possible strengths of each region. SMEs guarantee flexibility and creativity and increase employment. They help to prevent monopolies, insure competitive environment and variety of products and services. In comparison to large companies they hire more young people, women and part-timers. About 99.8% of all companies in European Union belong to category of SMEs. They create about 55% of aggregate turnover and 66% of workplaces.

## Regional Strategy

"Inter-professional and inter-functional integration is a heart of each strategy. It means ability to join and integrate activities in the whole range of value chain and to create situation in which all the activities complement into an integrated entity." [5]

Regional strategy is a term integrating all types and kinds of activities that we understand while talking about strategy in economy and management in general. Strategic development plan in a plan of development consisting of tangible goals, steps and timetable needed to reach the goals.

Before talking about potential of strategic partnerships in region we have to remember that usage of any partnerships, in entrepreneurial as well as non-entrepreneurial sphere, is determined by a strategic conception. In case of regions there should be a conception of regional development. Strategic conception functions as a motivator

or goal that region wants, can and has to reach in a long period of time. Competitiveness of region is based on inside-regional factors. Success of region is partly given by competition among different regions, but much more it is given by identification of key activities of each individual region. Key strategic goals and alternatives to reach them should be settled in correlation to identified key activities. As well as in profit sphere strategic goals of region should be set according to opportunities using strengths, specialities and unique characteristics of the region. Strategic goals should be based on identifying and using of competitive advantage.

Process of identification of all key issues is given by consensus among entrepreneurs, public authorities, non-profit organisations, public institutions, inhabitants, etc. All of the mentioned subjects have to cooperate at regional development to make it successful. None of the set key issues should come out from individual motives and goals of mentioned subjects. None of the key issues should serve to satisfy individual needs and wishes. The sense of the key issues has to be given by development of whole region by taking opportunities of internal sources.

Coming out of premise the regional management is comparable to business management it has to deal with all aspects of complex management like we know it from the literature and practise. According to this we can say successful regional development in the long-term is possible only by cooperation and coordination of all subjects and activities inside.

Region isn't a system existing in a vacuum. There are plenty of relationships and links of different types and forms inside and outside the region. The main task of regional management is to identify and manage strategic potential of region. To reach the task it is necessary to identify, adapt and manage all of the relationships inside and outside region and transform them into strategic partnerships. Nowadays regions identify and use their natural differences and unique only in industry of tourism. It should be changed so that each region would be able to manage its special strengths, heritage and skills in the way of successful strategy and future profitability.

## **Strategic Partnerships as a Factor of Competitiveness of Regions**

Strategic partnerships become to be a factor that strongly influences present shape of world economics and factors of competitive environment. Their popularity increases mainly because they are one of the most effective tools to increase competitiveness of companies. Partnerships enable to define and use growth strategies and influence existing business environment per partners. Use of strategic partnerships became to be a standard during last ten years and nowadays it is hard to find a company that wouldn't create and keep partnerships with another firms. An amount of companies as "individual players" decreases. Standard contractual relationships transform into partnerships because it shown to be preferable. Companies learned to make profit from above standard relationships and its potential. It helps them to prevent problems and solve them be "roundtable" negotiation if any occur. Companies can profit from possibility to create and realise common strategic goals and prevent risks by common activities

We try to state that partnerships among companies became a standard tool in present business environment. It seems their strategic potential is available for future usage. It also seems there are some types and forms of partnerships that can be successfully used in another than business environment.

If we understand strategic partnerships to be a factor influencing not only profit but also non-profit and public sphere and regional characteristics, we have to look on them also from different point of view that only the one described in economical literature. Economical literature describes joint ventures to be the only type of common companies that others than profit organizations can participate on. We think all types of well-known partnerships can occur in term of regional development. There are also new types and forms of partnerships not used in entrepreneurial environment used in regional development.

If we come out of premise there is a strategy established as a consensus of all touched and participating parties, it has a strong motivating elements in it. This strategy influences everybody and that is a reason why lots of different subjects want to participate on its development. To enable them to cooperate a strong feeling of cooperation and coordination has to be taken into the process. As we already pointed, lots of different kinds of subjects should be involved such as large companies, small and medium enterprises, non-profit organisations, state and public institutions, official authorities, research centres, universities, professions and individuals, etc. More

heterogeneous subjects participate on development and reaching strategy and strategic goals, more interesting, unique and useful solution can be found and implemented.

At the same time a problem of power for negotiation occurs. Large companies and official bodies have more power to carry their point than other subjects. In reality they often try to underline their own goals and interests. Chosen development plan could satisfy just one or some of subjects in region. One more problem can be met. Even though the cooperation should be based on “everybody with everybody” principle to get optimal results, there is a threat of never-ending and too abstract negotiations can occur in this case. Regional management has to remember these facts and be able to prevent them.

There are some factors helping to prevent or resolve mentioned problems. First, main goal of regional development plan is to develop the region not to develop individual subjects. This has to be clear and understood by everybody. Second, profit-oriented organisations tend to manipulate other participating subjects the most. That means non-profit and public institutions should play the role of coordinators. Also, some of the competences can be delegated the way it is usual in partnerships among companies and enterprises. Third, all of involved subjects have to see and understand their own real advantage and benefit. Fourth, a factor of common learning process has to be involved. If there is a possibility for powerful subjects to learn and get new experiences they are much more willing to accept less powerful partners. And fifth, climate of trust has to be created.

Coming back to learning-oriented cooperation that is a point enabling subjects to identify and understand their environment. It is a key point to understand changes of environment and successfully implement progressive strategies. It helps to increase creativity and development process of competitive advantages.

Cooperation and coordination of different professions and individuals plays very specific role in the process of regional development. Each profession is unique and has its own innovative ideas about region.

In case of non-cooperation of professions these ideas and proposals exist parallel next to each other and there isn't any integration of them. Often the situations of confrontation of different proposals are insoluble, for example confrontation of environment protection versus industrial development. Coming conflicts cause wastage of time and capital and slows down the development process. Final decision and solution will not be the optimal one but the one wanted by the stronger subject for sure. There is variety of reasons for conflicts and misunderstanding of professions such as lack of information, capital, time and willingness to listen to different opinions, distrust, disability to understand alternative points of view, etc.

On the other side a team composed from various professions has a great opportunity to achieve long-term success. Strong synergic effect can be created by complementation, mutual understanding and enriching. Participants have to be patient, trustworthy, listening to each other, opened and willing to work for common heritage of the region.

## **Examples of Regional Development in Slovak Republic**

Question of regional development became to be more and more important in Slovak Republic after joining European Union in May 2004. We describe three examples of regional development that show importance of implementation of strategic management tools into management of regions and possibilities of strategic partnerships in regions.

### **Project of Methodology of Strategic Development Plan**

Comenius University in Bratislava understood the importance of participation of educational institutions on regional development in Slovakia. Basically there is a lack of scientific methodologies and approaches official helping regional authorities to make successful development plan in practice. In 2005 Comenius University starts a project called “Methodology of development of strategic development plan for municipalities”.

Goal of the project is to develop the methodology in such way it would be usable for both scientific as well as practical purposes. It should be used as a textbook for students studying various topics connected to regional development. It should be used by professionals dealing with regional planning or regional development in practice too. Basically it should be used by official authorities of small municipalities up to two thousands inhabitants. The methodology will be tested on two chosen villages and modified according to identified problems and ideas of aggrieved parties.

The project is managed by Faculty of Management Comenius University but the research team is composed from young researchers coming from different faculties such as Faculty of Fine Arts, Faculty of Natural Sciences and Faculty of Architecture Slovak Technical University in Bratislava. According this fact almost all of relevant professions will participate on methodology development such as managers, regionalists, architects, landscape architects, sociologists, historians, environmentalists, etc.

Not only people from scientific and educational institutions will take part at the project. There is a need for people from practice to cooperate too. Comenius University asked some of Slovak well-known professionals to cooperate such as representative from regional development agency<sup>1</sup>, representative from non-government organisation “Agrogenofond<sup>2</sup>”, authorised architects, landscape engineer, etc.

The project should finish in 2007. The outcome will be in a form of publications, textbook and inter-professional conferences.

#### **Village of Halzice**

Strategic conception of development of a small rural village Haluzice can be shown as an example of cooperation of different subjects on regional development. Conception was created during the project “Summer atelier – Haluzice” in 2003-2004. Teachers and students of three Slovak universities took part at the project. They were Faculty of Management Comenius University in Bratislava, Faculty of Landscape Engineering Slovak Agricultural University in Nitra and Faculty of Pedagogy University of Constantine the Philosopher in Nitra. By cooperation of the universities three different professions took part at the project. They were managers, architects and artists. There was cooperation with the mayor of the village, the biggest entrepreneur and representatives of inhabitants too.

The project was composed from three stages. First, students of each university spent a week in the village experiencing the region, talking to inhabitants and each other and developing ideas. Second, there was a presentation of ideas in front of inhabitants and discussion about future possibilities of the region. Third, according to all the ideas and comments a conception of possible regional development was created. Fourth stage should take place in 2005. There should be presentation of the conception in front of inhabitants and investors. At present a publication of all ideas developed since today is in the process of preparation.

The outcomes of individual universities and ideas of inhabitants are as follows:

FLE SAU – Projects of landscape architecture using traditional genofond<sup>3</sup> of Slovak plants. Projects of fruit-grove and medicinal herbs estate. Projects of revitalisation of the village from the point of view of architecture.

FP UCP – Design and land art. Ideas about logo, design of textile, glass, package of souvenirs. Usage of objects of art in landscape outside the village.

FM CU – Projects of revitalisation of the village from economical point of view, financial analysis of mentioned ideas, business plan of fruit production.

Ideas of inhabitants – There will be a “Repositoryum<sup>4</sup>” established in the village consisting of fruit-groves and estates of utility, medical and decorative herbs. The biggest local entrepreneur invested his lands into the project of Repositoryum. Inhabitants want to establish almshouse in the village. Third, they want to bring tourists into their village concentrating on agro-tourism<sup>5</sup>.

Final development conception of the village was developed as a summary and combination of all of the mentioned ideas and projects. The conception looks as follows:

Repositoryum gives a great opportunity to produce co called “original products<sup>6</sup>” made out of fruits and to turn all of regional activities on the production of traditional regional souvenirs<sup>7</sup>. This idea is supported by the fact inhabitants want to establish the almshouse. Older people in Slovak Republic have a strong relationship to handwork, traditions and habits. They know how to produce lots of interesting and rare products. If people staying in the almshouse have possibility to use their skills and knowledge they would work hardly feeling useful, happy and motivated too.

Image and communication of the village should be based on traditions, habits and originality. All of the products produced by different subjects should have the same mark, logo and package design. That would strengthen position of the village as well as position of all individual producers. All of the producers, profit oriented as well as socially oriented, can share risks and costs and serve customers with wider range of products and services. The image of the village would help to attract agro-tourists to come later on too. New job possibilities will be created in field of tourism.

But, before attracting tourists to come in the village has to be revitalised. Basically new inhabitants should come to live in the locality. It is necessary to attract young families. It can be reached by reconstruction of old empty houses that could be offered to live in. Except of obligatory rents cooperation with older people in the almshouse could be asked. Especially cooperation of children and young people brought up in foster homes could bring strong relationships, social stability and sense of life for participating parties.

Some of the ideas of artists are very useful too. Except of logo and package design, a great idea of lavender<sup>8</sup> labyrinth was introduced. It would be placed at a hill behind the village visible from the near highway. A strong purple colour can attract and motivate people passing by to stop here. Together with high art statues placed at the top of the hill it is an example of a little avant-garde but innovative way of promotion.

#### **Town of Sládkovičovo**

Third example is a bit different to the previous one. While village of Haluzice is an example of rural development and inter-professional cooperation, town of Sládkovičovo is an example of industrial region and inter-regional cross-border cooperation.

Town of Sládkovičovo takes place about 30 kilometres far from capital of Slovak Republic city of Bratislava. It is located in so called “golden triangle” connecting city of Budapest, capital of Hungary, city of Vienna, capital of Austria, and city of Brno, second largest city of Czech Republic. There are plenty of highways connecting these cities and lots of large companies come to this region to build their subsidiaries here. There is a potential for industrial development here.

The mayor of Sládkovičovo understands the opportunity and invests all of his energy into attracting investors to come. An industrial park occupied by eight foreign companies functions near the town. A second one should be opened soon. Companies established in the industrial parks will perform as subcontractors of Samsung located in near region of Galanta.

A business incubator will be opened in October 2005. The incubator was planned together with representatives of business incubators in Hungary and Austria. Cooperation and transformation of ideas, technologies and entrepreneurs are agreed. Also there is cooperation with Regional Development Agency in Galanta about attracting small entrepreneurs to come in and with Comenius University about education process of workshops and seminars. The project of business incubator won Union aid in 2004.

## **Conclusion**

We introduced theory of usage of strategic management tools and strategic partnerships in a process of regional development. Given examples prove it is possible to identify strategic priorities and competitive advantages of regions and implement strategic management into management of regions. As we can see inter-professional and inter-regional teams are able to identify key strategic issues as well as original and unique details.

Potential of strategies is much wider than we know it from profit and economical sphere. Regional development should get into hands of skilled and innovative strategic managers that could identify and implement strengths and opportunities of regions and guarantee its success and future profitability.

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  4. 220/2003/UK Prieskum pripravenosti slovenských MSP na vstup do EU (2. časť)
1. Regional development agencies are non-profit public institutions taking care of development of individual regions. Each district in Slovak Republic has its own RDA. The one mentioned in text is situated in middle part of Slovak Republic.
  2. The organisation deals with traditional genofond of Slovak plants. Its goal is to collect, take care and reproduce very unique and old sorts of plants together with traditional recipes of traditional products made out of the plants. The activity helps to protect and save our national heritage in a very specific field of interest. Especially small rural regions can benefit from the collection.
  3. Genofond is a variety of genetic information.
  4. Repositorium is a place where genofond is collected and saved. In case of Haluzice it is in form of fruit-grave and estates of herbs.
  5. Agro-tourism became very popular in European Union. Slovak Republic is basically a rural country where more than 60% of inhabitants live in rural areas. It gives a great opportunity to build a network of centres of agro-tourism in the country.
  6. Original products are very unique and rare products. Their production is close-knit to locality, local sort of plant or animal and old traditional recipe of production. There are acts and principles at the over-national level of European Union defining patents and rights connected to production of original products. Their price is very high. The profit margin is calculated in hundreds of percentage.
  7. Traditional hand made products made out of wood, corn lives, sheep wool, Salix, textile, ceramics, etc.
  8. Lavender is a medical herb usable in many ways in pharmacy, cosmetics and honey production. Its flowers stay almost half a year. It is more than half a meter high and makes a very compact clumps that seem like a carpet.

# Market Valuation of Global R&D Alliances in High Technology Industries

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## Abstract

Existing literature on interfirm cooperation has not clearly explicated how stock markets value new knowledge development through international R&D alliances. Based on the perspectives of inter-organizational learning and technology capabilities development, this study develops a theoretical model with factors that are proposed to affect stock market valuations of cross-border R&D activities. The proposed factors include past linkages between partnering firms, individual firm's absorptive capacity, similarity of technology bases between partners and intellectual property protection level of partner's home country. With a sample of 160 dyad-international R&D alliances formed during the period of 1995-2000 in high tech industries, this study tested the proposed model separately for U.S.-firms and non-U.S. firms. Empirical findings suggest that individual firm's absorptive capacity significantly influenced market valuation of international R&D alliances for both U.S. and non-U.S. firms sample groups. Past direct linkages and technology bases similarity were significantly associated with market valuation of only U.S. firms sample. However, intellectual property level of partner's home country did not have any substantial impact on stock market valuations. These findings provide new insights for managers to develop alliance management capabilities.

## Introduction

Geographic diffusion of collaborative innovation activities and cross-border investments for new technology development has instigated the rapid proliferation of international R&D alliances (Hagedoorn, 2002). Firms have exploited this interfirm cooperation as a new source of competitive advantage and as a mean of sharing risks and costs associated with new technology development (Contractor and Lorange, 1988; Stuart, 2000). Given the rapid proliferation of interfirm cooperation in the globalized business environment (Hitt *et al.*, 2000), valuing international R&D alliances that intend to develop new technology may shed a new light on understanding firms' strategic behavior and performance.

An extensive body of research has suggested that competition is fundamentally knowledge-based, and companies strive to learn and develop capabilities faster than their rivals (Kogut and Zander, 1992; Teece and Pisano, 1994). Teece and Pisano (1994) posited that organizational learning enabled firms to acquire new capabilities, and a strategic alliance was a primary medium for organizational learning. This prediction was supported by an increased use of strategic alliances to facilitate inter-organizational learning (e.g., Ahuja, 2000; Gulati, 1995). Accordingly, an extensive body of literature identifies the characteristics of strategic alliances and partnering firms that facilitate the flow of knowledge among firms involved (Kogut, 1988; Mowery *et al.*, 1996; Powell *et al.*, 1996). Hagedoorn and Schakenraad (1994) showed a positive relationship between formation of technology alliances and firm innovation. Ahuja (2000) also suggested that alliances help firms develop and absorb technology from outside firm boundaries.

Many empirical studies on market valuation of interfirm cooperation have been conducted. However, inconclusive results of past studies (e.g., Das, *et al.*, 1998; Koh and Venkatraman, 1991; Lee and Wyatt, 1990) have demanded more theoretically sound and methodologically rigorous studies to advance the existing knowledge on strategic alliances. Based on the literature of inter-organizational learning (e.g., Gulati, 1985) and technology capabilities development (e.g., Cohen and Levinthal, 1990), this study purports to examine how stock markets value new knowledge generation, an expected outcome of international R&D alliances, by identifying factors that account for the changes in stock returns and comparing market valuations of U.S. firms with those of non-U.S. firms. Methodologically, this study differentiates itself from past studies that examined market valuation of only U.S. firms, not including their foreign partner firms. Given the exponentially growing interfirm collaborations between U.S. and non-U.S. companies and their impact on firms' global competitiveness (Hitt *et al.*, 2000), previous research

that used samples of only U.S. partnering firms may provide incomplete and misrepresentative results. Consideration of both U.S. and non-U.S. firms is necessary in that all partnering firms engaged in alliances may not be valued by stock markets in identical ways.

In this study, the term “international R&D alliance” is defined as a cooperative agreement formed by a U.S. firm and its foreign partner firm with a strategic purpose of technology sharing and co-development. This cooperative agreement does not involve the creation of a new independent business entity as in joint ventures, but it allocates resources, operational responsibilities, and financial risks and rewards to each partnering firm. Unlike joint ventures where new knowledge generated from interfirm cooperation may reside in joint venture firms, alliances formed by contractual agreements are better in returning the benefits to participating parent firms directly, so valuation effects can be measured more accurately with this mode of alliances.

## Hypotheses

### **R&D Alliances in High Technology Industries and Market Valuation**

While firms recognize the strategic significance of creating knowledge within their organizational boundaries to outperform their competitors, the rising cost of R&D, rapid technological diffusion, compression of product life cycles and globalization often require the use of interfirm cooperation as a means for knowledge acquisition, sharing, and creation (Grant and Baden-Fuller, 1995; Hitt *et al.*, 2000). Especially, in high-velocity business environments (Eisenhardt, 1988), very few firms would be able to, or willing to, independently carry the risks of accelerating R&D costs (Hagedoorn and Schakenraad, 1990). Therefore, a firm may consider developing a nexus of cooperative relationships with other firms in order to keep up with many emerging technologies, while concentrating internally on its specialty area. Powell (1990: p.315) noted that “firms pursue cooperative agreements in order to gain fast access to new technologies or new markets, to benefit from economies of scale in joint research and/or production, to tap into resources of know-how located outside the boundaries of the firms, and to share the risks for activities that are beyond the scope of the capabilities of a single organization.” Madhok and Tallman (1998) also posited that firms enter into collaborative relationships because firms expect to yield superior value through the relationships relative to other forms of organizational economic activities. These collaborative relationships *per se* tend to offer potential opportunities for synergistic combinations of complementary resources and capabilities and could be considered to be productive resources for value creation and realization.

Another benefit of interfirm cooperation is that it provides a venue for experimenting with new innovations and technologies. Mody (1993) suggested that the flexibility inherent in alliances facilitates experimentation with new combinations of participants in the pursuit of new technology strategies. The ability to experiment should be particularly valuable to rapidly growing firms, including so called high tech firms that compete in the environment characterized by rapid rates of changing in product design and process technologies, with significant risks of failure at the development stage, and rapid obsolescence of products once they enter production.

Despite the popularity of interfirm cooperation, previous studies have reported that half the collaborations made fail to achieve their intended goals (Pearce, 1997). Therefore, a body of studies concerned with the performance implications of interfirm cooperation has questioned whether formations of alliances contribute to firm value creation (e.g., Das *et al.*, 1998; Koh and Venkatraman, 1991, Park and Kim, 1997). However, empirical results of past research have been equivocal. Several studies reported that firms generally obtained a positive return when announcing the formation of an alliance (Chen *et al.*, 1991; Koh and Venkatraman, 1991). Other research found a negative (e.g., Chung *et al.*, 1993; Lee and Wyatt, 1990) or non-significant return (e.g., Das *et al.*, 1998; Merchant, 1997). Hence, as an effort of overcoming limitations of the past studies, this study investigates whether factors drawn from the literature of inter-organizational learning and technology capabilities development significantly influence market valuation of international R&D collaborations.

### **Inter-organizational Learning/Technology Capabilities Development and Market Valuation**

#### *Prior linkages between Partnering Firms*

With the repeated alliance formations with the same partner, firms may gather information pertaining to a partner’s capabilities, behavior and managerial style. This additional information may reduce adverse selection problems in

alliance formation (Balakrishnan and Koza, 1993). Further, communication and coordination may be enhanced in the current alliance, improving alliance outcomes.

While past research rooted in transaction cost economics has underscored the emergence of trust through repeated alliances and its role of deterring potential opportunistic behavior and limiting the transaction costs associated with an alliance (Gulati, 1995; Parkhe, 1993), the inter-organizational learning perspective emphasizes a learning process by which repetition and experimentation with the same partner enable alliances to be performed better. These routines become patterns of interactions that represent successful solutions to particular problems (Teece and Pisano, 1994). Recent studies provide some preliminary support for the benefits of prior linkages. It has been reported that parent firms with prior international joint venture experience with a partner manage better and gain benefits from subsequent joint venture formed with the partner (Barkema *et al.*, 1997). Zollo *et al.* (1998) found similar evidence of the experience benefits in their study of post-acquisition integration success. In conclusion, it is hypothesized that international R&D alliances formed between firms that have extensive past alliance relationships with each other will increase market value more than those between firms with fewer prior collaborations.

Hypothesis 1: Market valuation of international R&D alliances will be positively related to the number of prior alliances formed with the same partnering firm.

#### *Absorptive Capacity*

Cohen and Levinthal (1990) suggest the importance of an existing competence base, termed “absorptive capacity”, with which firms are capable of detecting, assimilating, and utilizing external knowledge. The key component of this notion is R&D investments. They suggested that a firm’s R&D investments contribute to not only the generation of new knowledge but to the firm’s absorptive capacity. When a firm uses an alliance to internalize new technology-based capabilities from a partner, the demands of the technology absorption process are such that the technology-acquiring firm must have considerable in-house technical expertise that complements the technology development activities of the alliance. Hence, the accumulation of R&D resources within a firm enhances the firm’s ability to acquire external technology and combine it with existing internal development activities for the commercialization of the learning object, technology.

The relationship between R&D expenditures and firm innovativeness has been extensively researched in the strategy literature (e.g., Mowery *et al.*, 1996). The level of a firm’s R&D investments tends to determine the ability of the firm to assimilate new technological capabilities of other partner firms in alliances. Knowledge absorption depends on the firm’s ability to add new knowledge to existing knowledge. The accumulated R&D investments may be an indicator of the firm’s willingness and readiness to absorb new knowledge through alliances.

Hypothesis 2: Market valuation of international R&D alliances will be positively related to the level of the firm’s absorptive capacity.

#### *Similarity of Technology Bases between Partnering Firms*

Motives for establishing alliances differ among firms, and these different motives may affect both the choice of partner firms and the effect of partner choice on the capabilities of participating firms. Firms jointly pursuing collaborative development of a technology or product within an alliance are likely to require some level of technological similarity to facilitate knowledge exchange and development. Cantwell and Barrera (1996) suggested that “firms with dissimilar profiles of technological effort will be likely to have less incentive to exchange knowledge,” (p.2). Hence, firms participating in an R&D alliance should possess ex ante technology-based capabilities that are similar in scale and scope at the time the alliance is formed.

Mowery *et al.* (1996) proposed that firms with high technological similarity tend to combine their complementary knowledge resources more effectively than firms with low technological similarity, and found that the extent of a firm’s absorption of technological capabilities from its alliance partner is positively related to its pre-alliance level of technological similarity with partner firms. As a result, firms establishing R&D alliances with partners that have similar technological bases will benefit more from the alliances than firms of which partners in R&D alliances have dissimilar technology bases<sup>1</sup>.

Hypothesis 3: Market valuation of international R&D alliances will be positively related to the similarity of technology bases between partnering firms.

### *Intellectual Property Protection of Partner's Home Country*

Intellectual property is an aspect of property rights that augments the significance of know-how assets. Knowledge assets are often inherently difficult to imitate. Moreover, some knowledge assets such as patents and trademarks are protected against illegal copy or theft under the intellectual property laws of individual nations. However, some know-how or intangible assets are exposed so as to be imitated, and firms striving to maintain their capabilities, and manage their knowledge resources effectively, may resort to intellectual property protection as a barrier to imitation (Teece, 1998).

Cross-border R&D alliances are established with the goal of pooling complementary resources and leveraging intellectual property, thus helping firms to keep pace with rapidly changing environments. Firms involved in such alliances face concerns as to how they successfully achieve their intended goal of combining complementary resources of each partnering firm without losing core proprietary knowledge or capabilities to the partner (Hladik, 1988). The concern is exacerbated by the fact that the degree of protection and coverage of intellectual protection laws significantly varies among individual countries. As alliances between firms from different countries have become an accepted feature of the globalized business environment, the protection of intellectual property has emerged as a primary concern of the firms participating in international R&D alliances.

For firms concerned with leakage of their valuable intellectual property, it is required to write and execute a reliable contract for the use of proprietary technological knowledge. However, adequate specification of property rights, monitoring, and enforcement of contractual terms are costly, and thus are to be implemented cautiously in international knowledge-intensive alliances. Oxley (1999) demonstrated how differences in the level of intellectual property protection across countries and alliance characteristics affected the choice of governance mode in interfirm alliances. Her findings implied that equity-based alliances are better than simple contracts, such as licensing agreements, in protecting proprietary knowledge through close alignment of the incentives of the partnering firms and enhancement of monitoring and control capabilities. Based on her findings, it is predicted that the stock markets will favorably (unfavorably) value announcements of U.S. firms' alliances with firms from countries with high (low) degree of intellectual property protection, because proprietary knowledge of U.S. firms will be more (less) likely to be protected in such alliances.

Hypothesis 4: Market valuation of international R&D alliances will be positively related to the level of intellectual property protection of partner's home country.

## **Methodology**

### **Sample**

The primary source for the data on international technology alliances is the Securities Data Company (SDC) database of Joint Ventures and Alliances. The data in this study consist of international R&D alliances formed between one U.S. and one non-U.S. firm during the period of 1995 - 2000. To effectively manifest the strategic roles of technology alliances, this study includes alliance activities of firms in high technology industries. For the scope of high technology industries, this study followed the work of Hadluck *et al.* (1991). Following these criteria, the final sample data are composed of 160 alliances, each of which involves one U.S. firm and one non-U.S. partner.

### **Analytical Methodology**

We employed the event study method to measure the impact of international R&D alliance formation on a partnering firm's market value. Although it is almost impossible to disentangle the value creation effects attributable to a particular alliance from those generated by the firms' other operations, event study methodology overcomes this problem in that it captures only the value created from an alliance formation on its announcement day, relying on the efficiency of stock market mechanisms.

The standard approach in event studies is based on estimating a market model for each firm and then calculating abnormal returns (McWilliams and Siegel, 1997).

$$R_{it} = \alpha_i + \beta_i * R_{mt} + \varepsilon_{it}$$

where

$R_{it}$  = the rate of return on the share price of firm  $i$  on day  $t$ ,

$R_{mt}$  = the rate of return on a market portfolio of stocks on day t,  
 $\alpha_i$  = the intercept term,  
 $\beta_i$  = the systematic risk of stock i,  
 $\varepsilon_i$  = the error term for stock i on day t  $\sim N(0, \sigma_{\varepsilon_i}^2)$

The deviation of the actual return from the expectation (abnormal return, AR) is computed for firm i on the day t as

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$$

where  $\alpha_i$  and  $\beta_i$  are the firm-specific ordinary least squares (OLS) parameter estimates obtained from the regression of  $R_{it}$  on  $R_{mt}$  over a certain estimation period preceding an event, the announcement of an alliance. Based on the methodological tradeoff and previous alliance research, the estimation period in this study is 150 days from  $t = -170$  to  $t = -21$ , where  $t = 0$  corresponds to the date of an alliance announcement. We also set up 20 trading days before and after an alliance announcement date. During these pre- and post-alliance periods, the abnormal return of each day is measured.

Next, market valuation is measured by summing the abnormal returns between two days  $t = t1$  and  $t = t2$  within the event window.

$$CAR_i = \sum_{t=t1}^{t2} AR_{it}$$

Generally, CARs over a short interval are preferable in order to reduce the amount of noise in the dependent variable. In this study, the impact of the announcement on the stock price is captured with cumulative abnormal returns of the three-day trading period consisting of  $t = -1$  and  $t = +1$ . After identifying the statistical significance of the cumulative abnormal returns (CARs), we explained the cross-sectional variation in the returns across the firms in the alliances sample by running OLS multiple regressions. OLS regression can be used despite the fact that the abnormal returns used as dependent variable in OLS regression are essentially residuals that may be heteroscedastic and be correlated with the independent variables (Karafiath, 1994).

#### **Measurement of Dependent Variable<sup>ii</sup>**

The dependent variable of this study is captured by the standard event study method that measures abnormal returns of partnering firms on the day of alliance announcement. For the U.S. partnering firms, daily stock prices during the data collection period were drawn from the CRSP database. The stock prices of the foreign partners were obtained from the Datastream database.

#### **Measurement of Independent Variables**

##### *Prior linkages between Partnering Firms*

Prior linkages are measured by counting past alliances formed by a pair of partnering firms. Data were collected from the SDC database and Dow Jones Interactive for the last 10-year period prior to an alliance announcement date.

##### *Absorptive Capacity*

A firm's absorptive capacity is operationalized as accumulated R&D investments, adjusted by the sales of each firm. It is not clear from prior research on how many years of R&D expenditures should be included. Pakes and Griliches (1984) suggested that R&D lags of order 6 and higher have a significant effect on patenting. Because R&D data for foreign firms were available from the data sources since 1991, however, we constructed a 3-year depreciated R&D investment with a 15 percent annual depreciation rate, which is recommended by Griliches and Mairesse (1984). The measure is as follows:

$$R \& D(Investments)_{it} = \sum_{n=t-1}^{t-4} (1-0.15)^{t-n-1} (R \& D)_{in}$$

where  $R\&D_{in}$  is firm i's sales-adjusted R&D expenditures in year n. The data for R&D expenditures were collected from COMPUSTAT and Bloomberg.

### *Technology Bases Similarity*

Technological similarity is measured by the patent cross-citation rate between two partnering firms. The measure developed by Mowery *et al.* (1996) was adopted. The cross-citation rate for firm  $i$  and firm  $j$  is defined as follows:

$$\text{Cross-Citation Rate (firm}_i, \text{firm}_j) = \text{Citation Rate (firm}_i, \text{firm}_j) + \text{Citation Rate (firm}_j, \text{firm}_i)$$

$$\text{where Citation Rate (firm}_i, \text{firm}_j) = \frac{\text{Citations to firm}_j \text{ patents in firm}_i \text{'s patents}}{\text{Total citations in firm}_i \text{'s patents}}$$

All U.S. patent citation data were gathered from the U.S. Patent and Trademark Office database, which contains all information recorded on the front page of every patent granted in the United States since 1975. To measure a level of technological similarity, we calculated the cross-citation rate of two partnering firms for the three-year period prior to an alliance announcement date.

### *Intellectual Property Protection*

This variable is measured by the index of patent rights, developed by Ginarte and Park (1997). The index is based on an examination of five categories of patent law: extent of coverage, membership in international patent agreements, provisions for loss of protection, enforcement mechanisms and duration of protection. This index shares some of the limitations of other intellectual property measures, particularly with respect to the narrow focus on patents rather than on alternative forms of protection (such as copyright or trade secret law). However, the inclusion of enforcement issues in the index, including the availability of preliminary injunctions, contributory infringement pleadings and burden-of-proof reversals, mitigates an important shortcoming of alternative measures. Another limitation of this measure is that the index is available for every 5-year term since 1960. However, the level of intellectual property protection has been highly stable since 1980 in the countries included in this study. In this study, the average values of 1995 and 2000 index were used for all the sample alliances, and the values were not assigned to non-U.S. firms because they are identical for all the non-U.S. firms. One advantage of the index is that it is available for a broader range of countries (110 in all) yielding a larger sample of alliances for which complete data are available. In conclusion, it is one of the most comprehensive and systematic indices among the published measures of intellectual property protection.

### **Control Variables**

#### *Cultural Relatedness*

Since international alliances considered in this study involve two firms located in two different countries, there may exist alliance management costs resulting from cultural differences between the two firms. Cultural differences indicate the extent to which work-related assumptions between the firms converge (Hofstede, 2001). When the firms are culturally similar, they may be able to form more accurate predictions about their partner's work-related conduct. Hence, alliances between two firms located in culturally close countries will be more likely to reduce alliance management costs and thus create high firm value. Cultural difference is measured as an index of cultural distance developed by Kogut and Singh (1985). The cultural distance measure is defined as follows:

$$CD_{jk} = \frac{1}{4} \sum_{i=1}^4 \{I_{ij} - I_{ik}\}^2 / V_i,$$

where  $CD_{jk}$  is the cultural distance between countries  $j$  (i.e., the U.S.) and  $k$  (i.e., partner's home country), and  $I$  indicates four scales representing uncertainty avoidance, individuality, tolerance of power distance, and masculinity compiled by Hofstede (2001). In the formula,  $I_{ij}$  is the score of scale  $i$  for country  $j$  and  $I_{ik}$  is the score of  $i$  for country  $k$ .  $V_i$  represents the sample variance of scale  $i$ , which is used to correct the squared deviations for differences in variances across the four scales.

#### *Firm Size Differences*

It is suggested that alliances comprising similarly sized firms generate higher value because such alliances diminish the need for partnering firms to standardize dissimilar internal policies and procedures to implement interfirm cooperation (Merchant and Schendel, 2000). This size difference was measured as the logarithmic value of the absolute difference between the annual sales of two partnering firms.

### Market Size

Market size is included as a control variable in that it may relate to the potential profitability and growth opportunities of a country (Buckley and Casson, 1996). The inclusion of a market size variable controls country differences in these aspects. Market size was operationalized as a log of Gross Domestic Product (GDP) of the partner country.

### Industry Dummies

Dummy variables for the chemical, computer, and precision instruments industries were included to test if there are any significant differences across the industries.

## Results

Table 1 presents the market valuation results of 160 international R&D alliances, categorized by firms' geographical locations and signs of market returns. It shows that U.S. firms realized positive returns more than non-U.S. firms and not all partnering firms were positively valued by the stock markets.

TABLE 1: CATEGORIZATION OF MARKET VALUATION OF 160 DYAD-INTERNATIONAL R&D ALLIANCES\*: U.S. VS. NON-U.S. FIRMS\*\*

	U.S.-based Firms	Non-U.S. Firms	Total
Positive returns	98	83	181
Negative returns	62	77	139
Total	160	160	<b>320</b>

\* 160 international R&D alliances are composed of 160 U.S. firms and corresponding 160 non-U.S. firms;

\*\* Non-U.S. countries include Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Japan, South Korea, Sweden, Switzerland and United Kingdom.

For U.S. firms: AR (t=-1) = 0.25; AR (t=0) = 0.77 %; AR (t=1) = 0.42 %; CAR (t=-1,1) = 2.68%

For Non-U.S. firms: AR (t=-1) = -0.13%; AR (t=0) = 0.18 %; AR (t=1) = -0.32 %; CAR (t=-1,1) = -0.46%

Table 2 and Table 3 provide descriptive statistics for U.S. firms and non-U.S. firms, respectively. The average change in firm value for three trading days on and after alliance announcement day was 2.7% for U.S. firms and -0.46% for non-U.S. firms. On average, the sampled firms had only one direct alliance experience with each other during the last 10-year period prior to forming a new alliance. U.S. firms showed much higher R&D investment activities than non-U.S. firms. Refer to Table 2 and Table 3.

We conducted multiple regression analyses, as we need to investigate which factors in the model possibly account for the differences in the potential economic benefits of international R&D alliances. Table 4 presents the regression results for testing Hypotheses 1-4. All control variables were entered first and then a group of explanatory variables were entered. Model 2 was specified as the full testing model for non-U.S. firms and Model 5 for U.S. firms<sup>iii</sup>. For non-U.S. firms, only the proposed relationship between individual firm's absorptive capacity and market valuations was found to be significantly positive, supporting H1. In contrast, for U.S. firms, the proposed positive associations of previous linkages between partnering firms, technological similarity level and firm's absorptive capacity with market valuation were statistically significant, supporting H1-H3. However, the level of intellectual property of partner's home country was not found to be significant. Refer to Table 4.

### Robustness of Tests

There was a possibility that unobservable heterogeneity in firm-specific capabilities affected the firm value creation effects of international technology alliances. Hence, we ran a hierarchical regression with firm fixed effects and found that there were no differences in organizational capabilities across firms. We also ran similar multiple regressions with fixed effects of year and country. No significant differences in stock market valuations were found.

## Discussion and Conclusion

Based on the literature of inter-organizational learning and technological capabilities development, this study delineated what factors influence market valuation of international R&D alliances. The empirical findings suggest that firms must carefully weigh the soundness of their rationale for forming international R&D alliances because not all the firms engaged in cross-border R&D alliances are equally valued by markets. Alliance managers should be careful not to ride on a “bandwagon” of participating in R&D alliances, seduced by the potential economic benefits presumably to be expected from interfirm cooperation. Many other factors also affect market valuation of international R&D alliances in direct or indirect ways.

Hypothesis 1 proposed a positive relationship between previous linkages and market valuation. Similarly, previous research also suggested that direct alliance experiences produce positive outcomes, such as trust and longer durations of interfirm collaborations (Gulati, 1995; Park and Russo, 1996). This study found that the proposed positive relationship was significant only with U.S. firms sample. This result may indicate that U.S. firms tend to be conservative in selecting partners because of a possible appropriability concern.

Hypothesis 2 postulated that cumulative R&D investments would be positively associated with market valuation, based on the concept of absorptive capacity, which suggests the importance of an existing competence base (Cohen and Levinthal, 1990). Consistent with the concept, the empirical finding indicated that the level of cumulative R&D investments positively influenced market valuations of both U.S. and non-U.S. firms, implying that stock markets viewed firms with considerable in-house technical expertise as successfully being able to internalize new technology-based capabilities from their partners. Therefore, alliance managers in high tech industries should be concerned with their R&D investment activities when they wish to realize positive market returns from international R&D alliances. In order to fully explore potentially positive opportunities of international R&D alliances, firms should be prepared to acquire new technological knowledge from their partners through continuous investments in their R&D function.

Hypothesis 3 proposed a positive relationship between technology bases similarity and market valuation. The analysis found that the proposed positive relationship was significant only with U.S. firms sample. This may indicate that U.S. firms form international R&D alliances in such a conservative way that they select partner firms with similar technology bases. However, this result should be interpreted with caution. The variable of technological similarity was measured with cross patent citation rates using the patent database compiled by the U.S. Patent and Trademark office. Because patent application activities of non-U.S. firms are less frequently recorded in the U.S.-based patent database, the calculated citation rates may be undervalued. However, this measurement problem may be mitigated by the fact that the U.S. market is the largest and most significant business marketplace so that firms in high technology industries have a high tendency of protecting their proprietary knowledge assets through patent filings (Albert *et al.*, 1991).

Lastly, we found that the level of intellectual property protection in non-U.S. countries was not significantly related to market valuation of U.S. firms. This result may be explained by a tendency of high tech firms’ protecting their innovative knowledge with legal contracts such as cross-licensing (Gridley and Teece, 1997).

The preceding discussions should be considered in light of the study’s limitations. The first limitation of this study is that empirical findings about the value-creating role of international R&D alliances are limited to stock markets’ (investors’) expectations about the performance of international technology alliances. These expectations do not represent actual or realized economic performance outcomes for each participating firm. Similarly, cumulative abnormal returns used as the dependent variable do not represent *ex post* actual alliance performance, despite a large number of evidence for the accuracy and efficiency of the stock markets. Combined with the fact that investors have a limited information processing capacity in a short-time period (Madhavan and Prescott, 1995), the expected performance measure may have compounded the challenge of examining its relationship with the tested explanatory variables.

The second limitation results from the problems of data collection for the variables used in this study. Due to the data availability of the dependent and independent variables, the sample firms were confined to public firms and large enough to be included in multiple databases. This problem was exacerbated by collecting data for non-U.S. firms because firms in many foreign countries are not required to disclose accounting information and report major changes in their strategic activity as comprehensively as U.S. firms. Naturally, the final sample firms were limited to firms in developed countries such as the OECD member countries.

Lastly, the operationalization of some explanatory variables warrants further analyses. For instance, prior linkages were assumed linearly related to market valuation. However, as inferred from the learning theory, there may be a minimum number of direct linkages at which prior linkages start to take effective. On the other hand, there may be an upper limit on the number of effective direct linkages, beyond which additional alliance linkage has an insignificant marginal effect.

Notwithstanding these limitations, the fact that international R&D alliances have proliferated in recent years opens up a wide range of future research possibilities. As data collections of interfirm cooperation have expanded in terms of sample period and scope, future research may be able to draw rich insights from more diverse forms of alliances with more extended temporal ranges. Additionally, further developments of fine-grained measures of alliance performance and its contribution to parent firms will enhance the explanatory power of the model in this study. The relationship between market valuation and international R&D alliance formations will be delineated better with those new performance measures beyond the use of stock market reactions as a performance indicator.

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TABLE 2: CORRELATION MATRIX FOR U.S. FIRMS

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. CAR(-11)	0.027	0.078										
2. Culture Index	1.658	1.076	-0.039									
3. LN(Size Diff.)	3.913	0.656	-0.029	0.138								
4. LN(GDP)	6.889	0.028	0.072	0.129	-0.093							
5. Chemicals	0.59	0.457	-0.012	-0.290**	-0.256**	-0.216**						
6. Computers	0.31	0.41	-0.033	0.313**	0.084	-0.156*	-0.335**					
7. Instruments	0.19	0.264	-0.131	0.065	0.033	0.019	-0.132	-0.148				
8. Direct Linkage	0.98	2.348	0.145	0.232**	0.244**	0.167*	-0.241**	0.102	0.012			
9. Cumulative R&D	1.022	2.647	.186*	-0.256**	-0.247**	0.046	0.166*	-0.161*	-0.025	-0.120		
10. Patent Citation	3.171	4.567	.167*	-0.168*	-0.250**	-0.084	0.237**	-0.017	-0.163*	-0.045	0.057	
11. Intellectual Property	2.619	3.911	-0.098	0.514**	0.220**	0.004	-0.270**	0.176*	0.030	0.102	-0.302**	-0.150

N=160; \* significant at .05; \*\* significant at .01

TABLE 3: CORRELATION MATRIX FOR NON-U.S. FIRMS

	Mean	S.D.	1	2	3	4	5	6	7	8	9
1. CAR(-11)	-0.0046	0.038									
2. Culture Index	1.658	1.076	0.052								
3. LN(Size Diff.)	3.913	0.657	-0.057	0.138							
4. LN(GDP)	6.346	0.531	0.227**	0.609**	0.208**						
5. Chemicals	0.590	0.457	0.097	-0.290**	-0.256**	-0.256**					
6. Computers	0.320	0.411	-0.015	0.313**	0.084	0.214**	-0.335**				
7. Instruments	0.190	0.264	-0.120	0.065	0.033	0.133	-0.132	-0.148			
8. Direct Linkage	0.980	2.348	0.062	0.232**	0.244**	0.248**	-0.241**	0.102	0.012		
9. Cumulative R&D	0.117	0.318	0.253**	-0.226**	-0.298**	-0.098	0.053	-0.091	-0.059	-0.063	
10. Patent Citation	2.619	3.911	-0.049	0.086	-0.103	0.072	0.075	-0.014	0.034	-0.019	0.039

N=160; \* significant at .05; \*\* significant at .01

TABLE 4. REGRESSION MODELS

	Model 1 <sup>a</sup>	Model 2 <sup>a</sup>	Model 3 <sup>b</sup>	Model 4 <sup>b</sup>	Model 5 <sup>b</sup>
Constant	-0.143** (0.044)	-0.151** (0.043)	-1.061 (1.671)	-1.616 (1.633)	-1.336 (1.663)
Culture Index	-0.0038 (0.004)	-0.0016 (0.004)	-0.0024 (0.006)	0.0038 (0.006)	0.0067 (0.007)
LN(Size Diff.)	-0.0049 (0.005)	-0.0012 (0.005)	-0.0028 (0.010)	0.0110 (0.010)	0.0119 (0.010)
LN(GDP)	0.0265*** (0.007)	0.0241** (0.007)	0.1610 (0.241)	0.2310 (0.236)	0.2150 (0.237)
Chemicals	0.0089 (0.007)	0.0123† (0.007)	-0.0087 (0.016)	-0.0186 (0.016)	-0.0205 (0.016)
Computers	-0.0037 (0.008)	-0.0025 (0.008)	-0.0095 (0.018)	-0.0086 (0.017)	-0.0095 (0.017)
Instruments	-0.0221† (0.012)	-0.0188† (0.011)	-0.0425† (0.025)	-0.0361 (0.024)	-0.0370 (0.024)
Direct Linkage		0.0008 (0.001)		0.0061* (0.003)	0.0063* (0.003)
Cumulative R&D		0.0317** (0.010)		0.0057* (0.002)	0.0053* (0.002)
Patent Citation		-0.0009 (0.001)		0.0033* (0.001)	0.0033* (0.001)
Intellectual Property					-0.0435 (0.048)
R <sup>2</sup>	0.111	0.178	0.027	0.114	0.119
ΔR <sup>2</sup>		0.067		0.087	0.005
F-Value	3.178**	3.601***	0.710	2.149*	2.014*

† significant at .10; \* significant at .05; \*\* significant at .01; \*\*\* significant at .001 (2-tailed test);

<sup>a</sup> N= 160 Non-U.S. firms; <sup>b</sup> N= 160 U.S. firms; Numbers in parentheses are standard errors.

# Globalization and International Taxation

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## Abstract

The forces for co-operation among various countries in the global economy are powerful and are inflamed by the utilitarian attitudes of the current leaders, who share a global vision with a motive of maximising individual gains. The trend within the Asia Pacific region is toward international reconciliation as APEC and ASEAN expands and as trans-Tasman economic relationships grow between Australia and New Zealand. The internationalisation of economic activities has significant implications for tax systems. Universal direct tax reforms have resulted in reduction of marginal income tax rates and preferential tax treatment given to promote both domestic and foreign investment. Tax reform is one reason for the speedy growth of some of the APEC countries. Tax policy in selected economies such as China reflects the economic and political environment for promoting domestic and foreign investment. The encouragement of competitive forces has made government policy more purposeful, selective and efficient.

## Introduction

There is a renewed interest in "globalization" and "internationalization" and in recent decades certain major moves have been made in this direction. It is appropriate, nevertheless, to state the 'fear of rapid change' from Thomas L. Friedman's book, *The Lexus and the Olive Tree*.

"If the defining anxiety of the cold war was fear of annihilation from an enemy you knew all too well in a world struggle that was fixed and stable, the defining anxiety in globalization is fear of rapid change you can't see, touch or feel - a sense that your job, community or workplace can be changed at any moment by anonymous economic and technological forces that are anything but stable." With the advent of globalization, the world has entered into a new era of economic competition and co-operation. The tax policy has been one of the instrumental variables affecting interjurisdictional equity, savings, investment and wealth creation of national economies.

Several international studies in taxation (such as Niemann 2004 [9], Desai and Hines Jr. 2003 [2], Desai, Foley and Hines Jr 2003 [3], Peter 2001 [13], Kerr 1996 [5], Musgrave 1990 [7]) assert that there is a need for cooperation among states not only in setting common rules to promote interjurisdictional equity and growth; but also to protect themselves against destabilizing their own tax systems. Interjurisdictional equity is difficult to achieve due to the following reasons: the problem of attribution of profits is not simple, especially for a corporation that is economically interdependent. Treating each subsidiary as a separate entity and determining profits by a separate accounting system is only an arbitrary procedure, since profits can be easily shifted when there is buying and selling between them. A country's tax share of the profits depends not only on its rate of tax but also on its share in the tax base.

Moreover, the problems of tax administration include tax evasion and avoidance. Though avoidance is legal, it reduces the tax base and results in inefficiency. Though there are international tax treaties that are available for reciprocal reporting arrangements, it is difficult to enforce 'arm's length' accounting procedures to prevent profit shifting into low-tax jurisdictions.

These problems can be corrected through a system of centralization of tax, by source taxation of primary profits at reciprocally equal rates (to promote interjurisdictional equity). For example in the case of European Union, international equity can be promoted by applying residence principle to profits earned by EU investors outside the union and source principle within the union members. Finally, tax evasion can be prevented by providing

administrative cooperation in tax matters. This is not impossible, since the members of European Union have already shown cooperation with respect to monetary and financial issues.

Another important objective of International taxation is to ensure that there is no adverse effect on domestic employment, investment and growth. However, this objective is difficult to achieve due to the following reasons. For example, the decision of a multinational corporation to invest abroad instead of its domestic country due to tax and commercial reasons adversely affects the interests of domestic workers and investors. Thus, foreign investment displaces domestic investment and results in massive unemployment when whole plants close down and moves abroad. Real wages reduce due to the loss of capital. The second loss to domestic economy may occur if the capital outflow leads to deterioration in the terms of trade. Foreign investment may replace export sales abroad, leading to fall in net exports (exports-imports). The third loss is the loss in tax revenue and national income. These revenue losses are reflected either in higher taxes paid by domestic sources or reduced government expenditure. According to Musgrave in United States, for example, there is an overall national income loss due to the losses accruing to US labour on account of investment abroad.

This paper is divided into 4 sections. Following the introduction is a section that deals with international taxation issues of selected Asia-Pacific countries. Section 3 examines the role of taxation in promoting FDI inflows into China. Finally, we have a concluding section.

## **International Taxation Issues of Selected Asia-Pacific Countries: Australia and New Zealand**

There has been a considerable tax reform measures taken by the Australian tax authorities in order to improve the country's international competitiveness. These measures include reduction of corporate income tax, from 34% to 30% (See Table 1 for the history of corporate income tax rates), the abolition of stamp duty on most share transactions, an end to the Financial Institutions Duty (FID), a 50% cut in CGT for individuals on assets purchased after October 1st 1999 and an effective CGT rate of 10% for complying superannuation funds and some trusts. Major changes to corporate taxation recommended by the Ralph Report in 2000 have been introduced on a piecemeal basis with changes in 2002, 2003, 2004 and further legislation expected in 2005. New consolidated tax rules which allow groups of companies to be taxed as a single entity were reintroduced in 2002.

The international taxation regime for businesses was improved further in July, 2004, when the government relaxed Controlled Foreign Company (CFC) rules as they apply to countries possessing broadly similar taxation regimes, such as the US, the UK, Germany, France, Canada, Japan and New Zealand. "Once the package is complete", said Ernst and Young, "Australian multinationals doing business in these major commercial centres will no longer need to be overly concerned with measures that are aimed at tax haven operations. The Government has clearly recognised the fact that business takes place in these countries for commercial rather than tax related reasons."

TABLE 1: INCOME TAX RATES OF AUSTRALIA 2004-05<sup>1</sup>

<b>History of Company Tax Rates: Australia</b>							
	1982-86	1986-88	1988-93	1993-95	1995-00	2000-01	2001-04
<i>Rate (per cent)</i>	46.0	49.0	39.0	33.0	36.0	34.0	30.0
<b>Income Tax Rates:</b>							
<i>Type</i>	<i>Bracket</i>			<i>Per cent</i>			
<b>Personal (a)</b> (marginal tax rates applicable for each individual bracket)	\$0 - \$6,000			nil			
	\$6,001 – \$20,000			17			
	\$20,001 – \$50,000			30			
	\$50,001 – \$60,000			42			
	above \$60,000			47			
Medicare levy for singles (b)	\$0 – \$14,539			Nil			
	\$14,540 – \$15,717			20% of excess > \$14,539			
	above \$15,717			1.5			
	above \$50,000			1.5 + 1.0 per cent surcharge if private patient hospital insurance is not held			
Fringe benefits tax (FBT) (c)	grossed up taxable value of fringe benefit			48.5			
Capital gains tax (CGT) (d)	discounted value, add to taxable income			taxed at marginal rate			
<b>Withholding Tax (e)</b>							
<i>Non-resident income tax rates</i>	\$1 - \$20,000			29			
	\$20,001 – \$50,000			30			
	\$50,001 – \$60,000			42			
	above \$60,000			47			
Resident (without tax file no.)	gross amount			48.5			
Non-resident							
-Dividends and Royalties	gross amount			30, unless affected by a DTA (f)			
-Interest	gross amount			10			
Mining payment (g)	gross amount			4			

Source: Australian Income Tax Legislation 2002-04.

If we compare the personal income tax rates of Australia and New Zealand, we observe the highest marginal income tax rate for New Zealand is lower at 39% for income above \$60,000 compared to 47% in Australia. Though the company tax rate is lower in Australia, 30% as compared to 33% in NZ, since the highest marginal personal income tax rate is 47% an Australian investor pays a higher effective tax on the total income earned. Table 2 provides the individual income tax rates of New Zealand. Note that the earners' levy is charged at a flat rate of 1.2% on almost all earnings.

TABLE 2: INDIVIDUAL TAX RATES OF NEW ZEALAND, 2004-2005

<b>Taxable income</b>	<b>Tax rate for every \$1 of taxable income (excluding earner levy)</b>	<b>Tax rate for every \$1 of taxable income (including earner levy<sup>1</sup>)</b>
up to \$38,000	19.5 cents	20.7 cents
\$38,001 to \$60,000 inclusive	33 cents	34.2 cents
\$60,001 and over	39 cents	40.2 cents
No declaration	45 cents	46.2 cents

Source: <http://www.taxpolicy.ird.govt.nz/publications/files/html/transtasman/c4.html>

It is important to note, the high standard of living, modern telecommunications and transport networks, wide variety of investment opportunities, and generally very well educated and trained workforce all contribute towards making Trans-Tasman countries, Australia and New Zealand potentially a very rewarding place in which to do business<sup>ii</sup>. In addition, these countries are in a very favourable position to access emerging Asian markets, and the combination of federal and state incentives for those prepared to locate their regional headquarters in these countries, becomes even more appealing. All exchange controls have now effectively been abolished in these countries and the government generally welcomes foreign direct investment (FDI) which will be of national interest. Foreign investment policy is implemented by the Foreign Investment Review Board (FIRB) in Australia, and although in principle the board must be notified of all foreign investment proposals, in practice those involving assets of AU\$50,000,000 or less are not usually examined. The factors that the FIRB considers are:

- Whether the enterprise will create new employment opportunities for Australian citizens, or allow Australian participation in some way
- Whether the enterprise will introduce new technological, managerial, or technical skills to the country
- Whether the enterprise will help to develop new export markets

## **International Taxation Issues of China**

Having seen the tax policies of small but highly developed economies among the APEC countries, Australia and New Zealand, this section deals with a large transitional economy, China (For further details on tax policy and stages of growth, see Hinrichs 1966 [4] & Peter 1998 [10]). The first national tax law of the People's Republic of China was implemented on January 1, 1994. The tax system of China comprises of a mixture of one or more categories of taxes including tariffs on imports, export taxes, income or gross receipts taxes on enterprises, and taxes on goods and services. The structure of China's tax system combines the characteristics of developing countries and transition economies, as well as of industrial countries. In terms of the share of income taxes in GNP, China is comparable to middle-income developing countries. However, the individual income taxes are negligible in China, whereas they contribute, on average, the equivalent of about 2 per cent of GNP in other middle income countries (For further details refer to Luo 1998 [6], Peter & Yao 1999 [15], Tung and Cho 2000 [16]).

The share of enterprise income and profit taxes in tax revenue in the centrally controlled Chinese economy was as high as 34 per cent, on average, in the first half of the eighties. However, the share of these taxes has declined to 14% in 1994 with the transition from a centrally controlled economy to a market oriented economy. It has further been reduced to 10% in 1998. In terms of taxes on international trade, China is comparable to industrialised countries, where such taxes raised, are around 3% to 5% of total tax revenue in the nineties.

The tax system in China prior to the reforms was complex, inefficient, and highly inelastic and the tax burden was distributed unequally. The tax reform of 1994 was aimed to improve the buoyancy and efficiency of the tax system and is more suitable to meet the needs of a market-based economy.

### **Enterprise and Personal Income Tax in China**

State owned enterprises (SOEs), collective enterprises, private enterprises, joint-ownership enterprises, joint-stock enterprises, foreign investment enterprises and foreign enterprises and any other organization that derive income from production and business operations and other income defined by law, including income from sources both within and outside China, are subject to the enterprise income tax. The coverage include the transfer of property, interest (except from government bonds), leasing, royalties and license fees, dividends, and other income.

Before the middle of 1980s, the chief characteristic of enterprise taxation in China was to tax various forms of enterprise ownership differently, based on their economic importance and social desirability. The state-owned enterprises paid three different taxes: the enterprise income tax, special levies on profit and the "income adjustment tax". The enterprise income tax was paid by large and medium-sized SOEs at an uniform rate of 55 per cent of their profit, while smaller SOEs paid the tax at rates ranging from 10 per cent to 55 per cent. In addition to the enterprise income tax, a number of special levies were imposed on SOEs, and that resulted in the marginal tax rate on the after-tax income of SOEs to exceed 65 per cent. The income adjustment tax was essentially a charge for the capital invested in SOEs with rates on average, equivalent to about 10 per cent of taxable profits.

With the tax reforms of 1994 there has been a rationalisation of enterprise income tax and the rates range from 18 per cent for taxable income below 30,000 Yuan to 33 per cent for taxable income above 100,000 Yuan per year. The enterprise income tax for all foreign investment enterprises in Special Economic Zones was reduced from 30% to 15%.

The Personal Income Tax is levied on the income of all individuals who reside in China or have stayed in China for more than one year. Income from wages and salaries are taxed at a rate of 5 per cent for taxable income below 500 Yuan per month and 45 per cent for the income over 100,000 Yuan. While for the production and business income of individual household and leasing and contracting income of enterprises, the tax rates are from 5 per cent for the monthly taxable income under 5,000 Yuan to 35 per cent for the monthly taxable income over 50,000 Yuan.

#### **Taxation in China's Special Investment Areas**

China has developed a regional policy such as Special Economic Zones, New Development Zones and Free Trade Zones to attract foreign investment. Table 3 shows that the Guangdong province is the largest recipient of FDI with the share of USD 12,019 million in 1998, accounting for 26.5% of total realized FDI. This is evident from Table 1.

Generally, creating a favourable tax climate in the host country is seen as the key to achieving greater foreign capital inflows. One of the important ways the government has adopted is to apply the preferential tax rules to the foreign funded enterprises to attract the foreign investment. The corporate income tax rate levied on the foreign investment enterprises is a flat rate of 15 per cent, while it is 30% for SOEs. The Chinese government has provided for the foreign business established in the Special Economic Zones, a variety of tax and investment incentives including lower land costs and more flexible labor policies. In general, the SEZ tax rules provide for exemptions from or reductions in taxes normally not applied to enterprises outside the SEZs under China's national tax legislation. For example, as one of the earliest Special Economic Zone, Zhuhai provides favourable conditions allowing for reduction and exemption of tariffs for the imported equipment, and Value Added Tax for import duties for the encouraged industry.

Also, a productive enterprise with an operation period over 10 years can have a first-two-year exemption and a 50 per cent reduction within the following three years counting from the first profitable year. There are also varied tax exemptions given to the enterprises with investment over USD 50 million, and construction and financial institutions. Through tax planning, foreign invested enterprises, FIEs pay an average income tax rate of only 5% in the special economic zones, 9% in other open coastal zones, and 15% in inland areas, all substantially less than the statutory 33% rate that applies to SOEs, Naughton, 1997 [8]. However, it should be noted that the various tax incentives provided to foreign investors have multiplied the growth of direct foreign investment in China (For further details on growth in foreign direct investment refer to Balasubramanyam, et al. 1996 [1] and Wu 1999 [17])

The total approved foreign investment has multiplied more than 25 times from a low base of USD 4,798 million in 1984 to a peak of USD 123,273 million in 1993. Correspondingly, the foreign direct investment approved and realised rose to USD 111, 436 million and USD 27,515 million in 1993, respectively. Since 1993, the approved direct investment has declined. Nevertheless, there has been a steady increase in the realised foreign direct investment. This is evident from Fig.1, given below.

From Fig.1, we see an inverse relationship between FDI to GDP ratio and tax mix ratio. FDI to GDP ratio was negligible in 1980, but it has increased to more than 5% of GDP in 1990s. The linear trend line shows an increasing trend during the period of study. However, the tax mix ratio (direct tax which includes personal income tax, corporate income tax and wealth taxes to total tax revenue) has been declining over the years. Direct tax incentives provided to special economic zones had also been a contributory factor for the decline of tax mix ratio. There had been a 20% decline in the tax mix ratio and the linear trend line shows clearly this decreasing trend.

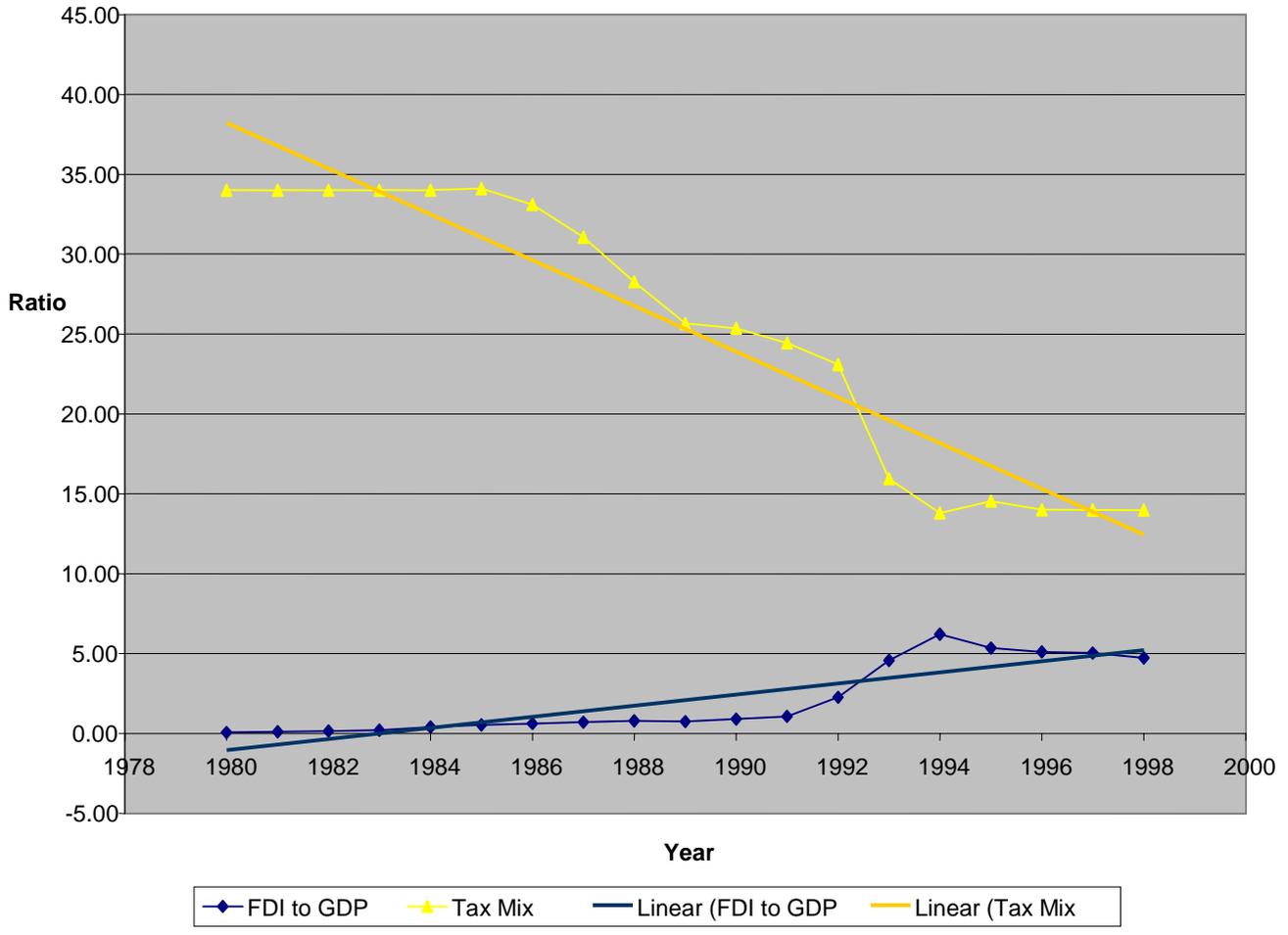


FIG 1: RELATIONSHIP BETWEEN FDI AND TAX MIX

TABLE 3: ACTUALLY USED FOREIGN DIRECT AND OTHER INVESTMENT BY REGION

Region and Sector	1997		1998	
	Foreign Direct Investment	Foreign Other Investment	Foreign Direct Investment	Foreign Other Investment
<i>National Total</i>	<b>4525704</b>	<b>713030</b>	<b>4546275</b>	<b>209474</b>
<i>Regional Total</i>	4490109	147330	4528389	190760
<b>Beijing</b>	159286		216800	
Tianjin	251135		211361	
Hebei	110064	244	142868	
Shanxi	26592	301	24451	
Inner Mongolia	7325		9082	
<b>Liaoning</b>	220470	16165	219045	21579
Jilin	40227		40917	
Heilongjiang	73485		52639	
<b>Shanghai</b>	422536		360150	6624
Jiangsu	543511		663179	
Zhejiang	150345		131802	2210
Anhui	43443		27673	
Fujian	419666	44	421211	
Jiangxi	47768	335	46496	
Shandong	249294	28262	220274	52826
<b>Henan</b>	69204		61654	
Hubei	79019	5847	97294	6355
Hunan	91702		81816	
Guangdong	1171083	92412	1201994	101166
Guangxi	87986	593	88613	
Hainan	70554		71715	
<b>Chongqing</b>	38675	3127	43107	
Sichuan	24846		37248	
Guizhou	4977		4535	
Yunnan	16566		14568	
Tibet				
Shaanxi	62816		30010	
Gansu	4144		3864	
Qinghai	247			
Ningxia	671		1856	
Xinjiang	2472		2167	

Source: State Statistical Bureau, (1999). Beijing, China Statistical Yearbook 1999.

## Concluding Remarks

This paper examines the existing international taxes in selected Asia-Pacific economies, including direct taxes and the tax incentives provided to promote global growth. Australian Treasurer Peter Costello stated that Australia has nothing to gain from a cut in corporate tax, "We have cut the company tax rate in Australia from 36 to 30 per cent and I think that is quite a competitive rate." Mr. Costello believes introduction of GST and a reduction in company tax, have gone far enough to improve Australia's international competitiveness. There has been more than twenty years of closer economic relations between Australia and New Zealand with the trans-Tasman economic relationship supported by the CER - free trade agreement. There is a stark contrast between developed and developing countries in terms of tax incentives provided. Low enterprise taxes and generous tax incentives in special economic zones in China has helped this economy to grow faster in the last two decades.

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# Recent Reforms in Corporate Governance in Asia: The Experience of Five Countries

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## Abstract

This paper reviews recent reforms in corporate governance in selected Asian countries introduced after the financial crisis of 1997-98. Since the financial crisis, corporate governance has become a key policy issue in most of Asia. A commitment to improving corporate governance has grown as governments recognise the need to protect investors' interests, reduce systemic market risks, maintain financial stability and enhance investors' confidence to encourage the return of capital to the region through better accountability and transparency. The incentive for corporations to follow best practice is to boost their corporate performance and attract investment. Effective corporate governance is also recognised as essential for economic growth. Governments are realising that good governance of corporations is a source of competitive advantage and critical to economic and social progress. After the financial collapse of 1997, several crisis-affected economies have overhauled their corporate governance, strengthening market forces, implementing tougher regulations and focusing on transparency in decision-making and accountability. Progress in reforming corporate governance, however, has been uneven across Asia. While considerable progress has been made in the ongoing process of corporate governance reform gaps to achieve best practice remain. Implementation has been weak due to poor compliance and enforcement.

## Introduction

Weak corporate governance has been recognised as one of the major sources of East Asia's vulnerabilities in the lead up to the financial crisis of 1997-98. Many corporations in the five crisis-affected economies of Indonesia, Korea, Malaysia, Philippines and Thailand suffered from over-capacity, poor quality of investments and excessive diversification and exposure to debt brought about by decisions of ineffective board of directors, weak internal controls, poor audits, lack of adequate disclosure and weak legal and administrative systems (Capulong, *et. al.*, 2000). The corporate failures and excesses were often the result of incompetence, fraud and misuse of power. The business environment was largely relationship-based where close links among firms, their banks and the government have developed through ownership, family ties and political deal making. Perverse connections between lenders and borrowers led to insider and poor quality lending. Not only did firms rely heavily on related parties for finance but also for inputs and distribution. The relationship-based system protected both firms and banks from market discipline, undermining the need to develop adequate corporate governance mechanisms.

Since the financial crisis, corporate governance has become a key policy issue in most of Asia. A commitment to improving corporate governance has grown as governments recognise the need to protect investors' interests, reduce systemic market risks, maintain financial stability and enhance investors' confidence to encourage the return of capital to the region through better accountability and transparency. The incentive for corporations to follow best practice is to boost their corporate performance and attract investment. Effective corporate governance is also recognised as essential for economic growth. Governments are realising that good governance of corporations is a source of competitive advantage and critical to economic and social progress (Economic Analytical Unit, 2002). Stronger market forces, tougher regulations and a move towards rules based system are gradually transforming the business environment in Asia. The new focus on transparency in decision-making and accountability has emerged to prevent future abuses. Progress in reforming corporate governance, however, has been uneven across the five crisis-affected economies. Although a number of measures to strengthen and modernise the regulatory framework for a rules based corporate sector have been in place well before the crisis, implementation has been weak. Poor compliance and enforcement due to weak courts, lack of well-trained and resourced regulators, powerful vested interests and lack of political will have hindered corporate reform in some economies.

After the crisis, more recent reforms in the broad areas of corporate ownership structure, shareholder participation and protection, creditor protection, transparency and disclosure, and bankruptcy procedures have taken place. The following is a survey of recent developments in these major areas of corporate governance reform. The discussion in this paper is focused on reforms affecting the major participants in corporate governance namely the board, the owners or shareholders and the stakeholders in particular, creditors.

## Corporate Ownership Structure

Ownership structure is an important area of corporate governance. It determines the nature of the agency problem, that is, whether the dominant conflict is between managers and shareholders, or between controlling and minority shareholders. The interests of those who manage the company can differ from those who supply the company with external finance. The principal-agent problem grows out of separation of ownership and control. One aspect of corporate ownership structure is the degree of ownership concentration, which determines the distribution of power between its managers and shareholders. Ownership concentration is not necessarily bad. When ownership is concentrated, large shareholders are good for corporate governance as they could play an important role in monitoring management. Indeed, in Asia where corporate ownership is concentrated, corporate management is usually in the hands of controlling shareholders. The problem with ownership concentration is when it is combined with weak outside shareholder protection laws, an uncompetitive financial system, and opportunities for malfeasance and corruption by big powerful (insider) shareholders that the cost of failures becomes high (Prowse, 1998).

Another aspect of corporate ownership structure is its composition. It determines who the shareholders are and who among them control the company. A shareholder can be an individual, a family, a bank, a holding company, an institutional investor, or a non-financial corporation. Depending on who the significant shareholder is, the involvement in the company's management could vary. For instance, a family would be more likely to get interested in control and profits than an institutional investor who would probably be only interested in profits (Capulong, *et. al.*, 2000).

A research conducted by Claessens, Djankov and Lang (2000) investigated the separation of ownership and control in selected Asian countries. Their key findings indicated that the control of a single shareholder was prevalent in more than two-thirds of firms and the separation of management from ownership control was rare, giving the owners excessive power to pursue their own interests at the expense of minority shareholders, creditors and other stakeholders. While concentration of ownership and extensive family control characterized corporate ownership in most Asian countries, it is particularly severe in Indonesia, Philippines and Thailand. A small number of families control a significant share of corporate assets with 16.6 per cent in Indonesia and 17.1 per cent in the Philippines, of the total value of listed corporate assets could be traced to the ultimate control of a single family. In Indonesia, the Philippines and Thailand, the largest ten families controlled up to 50 per cent of market capitalization while the largest ten families in Korea controlled about one-third of the corporate sector. Control was enhanced through dual-class shares, pyramid structures, and cross-holdings among firms.

While ownership concentration in Asia is not unique to the region, it raises the possibility of increased risk taking. The high concentration and family-based ownership is a typical sign of weak corporate governance. It has led to governance structures that enabled the dominant shareholding families to make key decisions on their own. Appointments of board members are almost entirely decided upon by those families in control of the firms. This has led to conflicts of interests between dominant family shareholders/managers and minority shareholders. It has reduced the effectiveness of shareholder protection, as presumably the dominant and politically powerful shareholders will not be a source of pressure for improvements in disclosure and governance for fear that these may erode their control and benefits. It has also resulted in the expropriation of non-controlling (outside) shareholders by the controlling shareholders. In some countries, controlling shareholders have frequently utilized inter-firm transactions as a means to divert resources from one held firm to another to increase their welfare at the expense of outside shareholders. Diversion of money by a dominant shareholder could also take the form of paying himself special dividends and engaging in excessively risky projects at the expense of minority shareholders' investments.

## **Korea**

In Korea, the *chaebols*—large diverse conglomerates, dominated the corporate sector and operated in nearly all sectors prior to the crisis. They were mostly owned and managed by families using cross-ownership and pyramid structures and received favorable bank treatment.<sup>1</sup> It was quite common in Korea that minority shareholders had to take intolerable risks as the firm in which they held shares made loan guarantees to other firms controlled by the same family, or lent money directly to them at below market interest rates. Other episodes of expropriation were abundant where *chaebol* owners acted in ways that were inconsistent with the maximization of firm value by investing in big projects whose prospects of return did not justify the investment but were ways to transfer wealth. Equity participation by connected firms frequently resulted in similar expropriation where outright transfer of wealth occurs from participating firms to an insolvent firm issuing new equities. This has led many large corporations to insolvency or bankruptcy costing lending institutions and taxpayers a substantial amount of damage (Nam, *et. al.*, 1999).

When the Korean government announced its ‘Big Deal’ initiatives in 1998, it disclosed an extensive economic reform program highlighted by bold restructuring of Korea’s *chaebols*. It aimed to reduce the *chaebols*’ market power and excessive sectoral diversification by forcing them to focus their business operations on a small number of core industries. The program also aimed to reduce *chaebol*’s strong reliance on debt financing, to improve transparency in decision-making, and to enhance the accountability of controlling shareholders and managers. The specific initiatives included (Woo-Cummings, 2001; Economic Analytical Unit, 2002):

- Requiring the largest *chaebol* to undertake voluntary workouts including converting debt to equity and selling non-core subsidiaries and other assets to disperse *chaebol* ownership;
- Banning cross-guarantees of loans of *chaebol* group of companies;
- Removing incentives for *chaebol* to retain non-core businesses;
- Exempting or reducing taxes on asset transactions, encouraging merger and acquisition activity, assets sales and business asset swaps;
- Introducing new listing rules for holding companies, assisting restructuring; and
- Starting a corporate restructuring fund and easing requirements for public offerings.

The ‘Big Deal’ measures were particularly applied to the five largest *chaebols* including Hyundai, Samsung, Daewoo, LG and SK.<sup>2</sup> Several laws related to *chaebol* restructuring such as the Commercial Law and the Securities Exchange Law were also revised in 1998.

Considerable progress has now been achieved in *chaebol* reform. The four largest *chaebols* cut their total number of subsidiaries from 232 in 1997 to 137 in 1999 (Korea Times, 2000). Apart from a reduced number of subsidiaries and elimination of cross debt guarantees among *chaebols*, debt-equity ratios have fallen from their excessively high levels. For instance, from an average of 700 per cent debt-equity ratio before the reform, Hyundai and LG cut their debt-equity ratios to 181 per cent and 184.2 per cent, respectively and Samsung and SK registered debt-equity ratios of 161 per cent and 166.3 per cent in 2000. The conglomerates have either been broken up or sold like the Daewoo Group, which once had 37 subsidiaries in diverse industries, or forced to focus on their core competencies by divesting collateral business lines like the Samsung, LG and SK Groups. The Hyundai Group has been separated with its components on the international auction block. Overall, 16 out of the top 30 conglomerates of 1997 are no longer in the list in 2002 (Ministry of Finance and Economy, 2002).

## **Indonesia**

In Indonesia, it is very common to find control by families or by limited number of shareholders in the corporate sector. The highly concentrated and family based ownership resulted in a governance structure where corporate decisions were made by controlling families. In many instances, these controlling families had political connections that allowed their companies to enjoy special privileges, particularly in gaining easy access to credit. There is no separation of ownership and control. In 2001, around 67 per cent of publicly listed companies were family-controlled while only 7% was widely held. Ownership concentration in Indonesia is highest in the region. It is demonstrated by the fact that the top five largest shareholders controlled between 57 per cent and 65 per cent of company shares. Indonesia has the largest number of companies owned by a single family. In terms of capitalization, the top family controlled 17 per cent of total market capitalization while the top 15 families controlled

62 per cent of the market. Concentration of corporate control has been enhanced by cross-shareholdings, which is allowed by Indonesian law without restrictions (Kurniawan and Idriantoro, 2000).

As in other countries in Asia, Indonesian conglomerates range widely in size, scope, importance, and nature and degree of political connections. Chinese Indonesians assumed a dominant position in the highly concentrated ownership structures. It was generally known that some 15 families, 14 of them Chinese Indonesians were predominant. They controlled 61 per cent of all publicly listed companies, while other families only controlled another 5.4 per cent (Claessens, *et. al.*, 1999).

Each conglomerate controlled at least one bank, which financed company investments with little autonomous decision-making or objective investment project analysis. Virtually all banks have made “connected loans” to sister companies far in excess of the legal limits, which have caused a number of insolvencies particularly during the Asian crisis. The failure of one company led rapidly to failure of the bank it owned and other affiliates. These were taken over by the government’s Indonesian Bank Restructuring Agency (Patrick, 2001).

Many corporations in Indonesia are now under government ownership, though some are still operated by former family owners. Recent commitments by the government to privatize the large state-owned enterprises have been delayed because of vested interest opposition and hence the privatization program has not yet made much progress.

#### **Malaysia**

Corporate ownership in Malaysia is distributed among outside investors, families and the government. Hence, unlike the other crisis-affected economies, concentration of ownership is not as pronounced. Malaysia’s top ten families controlled only around 25 per cent of market capitalization while the government held 35 per cent. Recent moves to sell substantial government equity in listed companies suggest that the government is reducing its role in the corporate sector. Foreign fund managers were an active group in shareholding, far more active than domestic fund managers. They were reported to account for almost 50 per cent of the turnover of the blue chip companies during the 1990s. Domestic institutional investors have emerged as a significant force in the equity market, with *Perbadanan Nasional Berhad* (PNB) and the Employees Provident Fund (EPF) as the most important. Foreign fund managers and domestic institutional investors have opted to play a passive role in corporate governance (Thillainathan, 1999).

#### **Philippines**

In the Philippines, family ownership dominates. Large shareholders that dominate ownership are families whose wealth dates back to the country’s colonial past, early industrialists and ethnic Chinese immigrants and entrepreneurs, and professionals from the middle class. Large shareholders managed their investments through corporate group structures, which would commonly include a commercial bank, other financial institutions like insurance and finance companies. Large shareholders either directly owned these banks or controlled them through companies they owned. Once banks became part of a corporate group, member companies of the group accessed loans at favorable interest rates and terms. The corporate culture promoted sweet deals to well-connected people and other misuses of capital.

The average ownership of the largest shareholder in the Philippines was 40.8 per cent of the market value of non-financial companies and 27.2 per cent of the financial sector in 1997. The largest five shareholders owned about 65.3 per cent of the non-financial sector and 59.2 per cent of the financial sector in the same year (Saldaña, 1999).

Publicly listed companies are not widely held by public investors. Most of them are part of family business groups that went public to raise capital. Public listing rules required public issuance of only 10 to 20 per cent of outstanding shares. Hence, ownership by large shareholders (mostly families) of publicly listed companies is very common. Many companies listed in the Philippine Stock Exchange have issued only the minimum number of shares needed to gain public listing. By limiting the ownership shares issued to public investors, controlling shareholders reduce minority shareholders to passive roles in corporate governance. Concentration of ownership at these high levels demonstrates that publicly listed Philippine companies are not truly publicly owned (de Ocampo, 2000).

#### **Thailand**

As in most Asian countries, ownership of Thai corporations is concentrated. The average size of equity share of the top five largest shareholders was 56 per cent of total outstanding shares in 1998. This implies that the control of an

average Thai company is typically in the hands of a few persons (founders or their associates). The management of most large Thai corporations listed on the Stock Exchange of Thailand has been predominantly family-run as pioneered by Chinese merchants. Many of these families have built their empires and prospered in many sectors, particularly in banking, finance and securities, agro-industry, and telecommunications. Around 62 per cent of all publicly listed companies in Thailand are family controlled. Although some of the businesses have become publicly listed companies, their founders managed to keep a controlling share within their family. The Public Company Act of 1992 allowed ownership and control of these companies to remain with the founding families even as they became increasingly dependent on non-family resources. It has also been a practice of Thai corporate founding families to set up holding companies to own shares in affiliated companies or subsidiaries. Through these holding companies, founding families maintained effective control of entire groups, including those that are publicly listed (Limpaphayom, 2000).

The emerging post-crisis Thai corporate sector is one that is less family dominated. It has experienced more government and foreign ownership. For instance, the government has become the largest equity owner in the banking industry subsequent to the nationalization of commercial banks. Significant increase in foreign shareholding has also occurred in many sectors such as banking, finance and securities, insurance, and public utility services.

Despite many family owned corporations still hanging on to non-core assets with high leveraging and low cash flows, several other families have made early progress in restoring their companies through voluntary restructuring, have listed their companies and sought external managers and directors.

## **Shareholder Participation and Protection**

Shareholder participation and protection is crucial in corporate governance because expropriation of minority shareholders and creditors by the controlling shareholders occurs so often. When outside investors finance firms, they face a risk that the returns on their investments will never materialize because controlling shareholders or managers expropriate them. A major concern for minority shareholders is how they can effectively monitor management so that managers will act in the shareholders' best interest. In general, expropriation is related to the agency problem. A conflict of interest occurs when controlling shareholders use the profits of the firm to their own benefit rather than return the money to the minority shareholders and other investors.

A sound corporate governance framework requires that shareholders actively participate in and exert influence on corporate decision-making, and are protected from exploitation by company insiders. Reforms in the area of shareholder protection have focused mainly on strengthening the system of the board of directors and minority shareholders' rights. These have involved amending listing rules and corporate laws and introducing voluntary codes of corporate governance.

A number of mechanisms exist for shareholder participation and protection. When shareholders and other investors finance firms, they become entitled to certain rights or powers that are generally protected through the enforcement of corporate laws and other legislation. The most important are the system of board of directors, shareholder participation through voting in meetings, legal protection of minority shareholder rights, and transparency and disclosure requirements.

Shareholders have the right to elect their representatives on the board of directors of a company who assume responsibility of monitoring, directing and appointing the firm's managers. Boards are expected to draft corporate policy, approve strategic plans, authorize major transactions and the sale of additional securities, and declare dividends. They are also expected to hire, advise, compensate and, if necessary, remove management, subject to the approval of shareholders. Boards should be independent of management and shareholders for them to be effective in resolving conflicts in situations where the interests of shareholders and management diverge (Choe, 1998).

Basic shareholders' rights, usually captured in company laws, should allow for active participation and influence on corporate strategic decision-making (e.g., decisions concerning corporate changes such as amendments to the articles of incorporation and decisions on mergers and dissolutions, among others). Shareholders should have

the right to participate and vote in annual and special general meetings, share in the residual profits of the company, obtain relevant company information on a regular basis and convey or transfer shares. Rules in some countries allow proxy voting by mail, which makes it easier for minority shareholders to exercise their voting rights while others allow cumulative voting, which makes it easier for a group of minority shareholders to elect at least one director of their choice. Allowing cumulative voting strengthens the position of minority shareholders under concentrated ownership structures. Other rights include provision for outsider representation on the board, anti-dilution provisions, limits on self-dealing or insider trading by controlling shareholders, and takeover rules limiting the power that controlling shareholders can appropriate (Johnson and Shleifer, 2001).

Timely and accurate disclosure and transparency on all matters material to company performance, ownership, and governance relating to other issues are keys to effective shareholder control and protection. The benefits that emanate from effective monitoring, disclosure of information and transparency meant that capital providers were able to protect themselves from the opportunistic behavior of managers.

Financial information should be independently audited and prepared following internationally acceptable standards. The quality of transparency and disclosure depends on accounting and auditing standards and the financial reporting system adopted. Before the Asian crisis, corporate transparency and disclosure were generally weak in most crisis-affected countries. After the crisis, important measures have been introduced to improve them. Many countries have introduced changes in accounting and auditing rules to move towards international standards, particularly with those issued by the International Accounting Standards Committee.

#### **Korea**

Simple diversion of money by a dominant shareholder from a firm under his control was not uncommon in Asia. In Korea, minority shareholders had to take intolerable risks as the firm in which they held shares made loan guarantees to other firms controlled by the same owner, or lent money directly to them.

A number of amendments to Korea's laws and regulations to increase the accountability of management and controlling shareholders, and strengthen the rights of minority shareholders were implemented in 1998. These changes included (Chopra, et. al., 2001; Korea Stock Exchange, 2002):

- The Korean Stock Exchange (KSE) required that all publicly traded companies had at least one outside board director; by the end of 1999, a quarter of their boards should be outside directors. Moreover, for listed companies and financial institutions with the assets of KRW 2 trillion or more, there must be at least three outside directors and they must account for at least half of the total board members. It is also recommended that listed companies appoint outside auditors.
- The Commercial Code and Securities and Exchange Act were reformed to lower the threshold for exercising rights to file suit, make proposals at a general shareholders' meeting, inspect company's financial accounts, and request the dismissal of directors or internal auditors. The previous requirement of 1 per cent ownership to bring a derivative suit was eased to 0.01 per cent and the 1 per cent ownership to request the dismissal of a director or auditor for an illegal act was relaxed to 0.5 per cent. The minimum ownership required to examine corporate books has been reduced from 3 per cent to 1 per cent.
- The shareholder proposal scheme entitled a shareholder of a listed company with a stake of 1 per cent or more of total voting shares to exercise the right to submit agenda items for the shareholder meetings.
- As part of an effort to encourage institutional investors to play an active role in monitoring corporate management, restrictions in voting rights for institutional investors were removed.
- A limited form of cumulative voting for the selection of directors was introduced.

In 1999, the Code of Best Practice for Corporate Governance required listed companies to prepare financial statements that were audited in accordance with international standards and to bring financial disclosure standards in line with best practice.

More recently, the Corporate Restructuring Promotion Law is enforcing transparency for the big groups. It introduced a number of measures strengthening accounting rules and audit oversight. These included:

- Combined financial statements that net out intra-group transactions were required for the top 30 *chaebols*;

- In addition to annual and semi-annual reports, listed companies were required to release quarterly reports and establish audit committees composed of outside directors, shareholders, and creditors' representatives within the board of directors; and
- Legal changes have been made so that domestic accounting practices conform to international standards.

At the start of 2002, Korea introduced revised listing regulations, which provided for stricter compliance and stronger delisting criteria and introduced a penalty system for non-compliance with regulations (Korea Stock Exchange, 2001). Hence in March 2002, ten companies were delisted from the Korea Stock Exchange for accounting irregularities. In June 2002, the Korea Corporate Governance Service was established to conduct research and analyze trends of corporate governance in Korea and overseas, make policy recommendations and provide consultancy services on corporate governance.

#### **Indonesia**

In the case of Indonesia, most disclosure requirements have tightened and accounting standards have improved after the crisis, although from a low base. In 1999, a code for good governance was introduced, which guided subsequent reforms. All companies were required to provide annual reports with audited and annotated financial statements and consolidated reporting has become mandatory. In order to improve the quality of reporting, a 'Guidelines for the Financial Reporting Systems of Listed Companies' was jointly prepared by the Indonesian Institute of Accountants, the Indonesian Issuers Association and the Faculty of Economics of the University of Indonesia.

By 2001, the Jakarta Stock Exchange (JSX) has tightened listing rules especially disclosure and liquidity rules. It required listed companies to form audit committees, appoint independent directors comprising at least 20 per cent of the board and strengthen the company secretary's function. The JSX required listed companies to disclose information concerning company performance in an accurate and timely manner through the publication of periodical and non-periodical reports but at the same time tightening the rules and regulations governing the disclosure of information. These reports should enable interested parties to review listed companies' performance objectively to protect themselves from undertaking excessive risks (Jakarta Stock Exchange, 2001). Major initiatives have been taken to harmonise Indonesia's Financial Accounting standards with International Accounting Standards. By the end of 2001, 247 listed companies have appointed independent directors and 168 have established audit committees.

To encourage listed companies to conform to the Code of Good Governance, the JSX implemented a pilot program of monitoring and reviews of listed companies' level of compliance with the principles of good corporate governance. These efforts combined with routine education and development programs have improved the overall level of compliance that by end of 2001, 73 per cent of total listed companies in the JSX were fully compliant with the principles of good corporate governance, from 65 per cent in 2000.

#### **Malaysia**

Malaysia was well advanced in its corporate regulatory environment. Even before the crisis in 1997, listed companies were already required to appoint independent directors to their boards and establish audit committees. Listed companies were subjected to a disclosure based regulatory regime where authorities were allowed to regulate securities offerings by assessing the investment merits and pricing of the offering. Its accounting standards were among the highest in Asia and were generally consistent with international accounting standards (Kuala Lumpur Stock Exchange, 2001). After the crisis, Malaysia has maintained significantly higher standards in corporate governance and at the same time has developed more sophisticated and adequate legal systems to protect shareholders' and creditors' rights than the rest of the countries in the region. In 2000, through the Malaysian Code on Corporate Governance, authorities have set out principles and best practices for companies to follow in an effort to maintain high standards of corporate governance. The Code set out principles guiding (PricewaterhouseCoopers, 2000):

- The composition of the board of directors to include a balance of executive and non-executive directors; appointments to the board and re-election of all directors; and directors' remuneration to be linked to corporate and individual performance; and
- Listed companies to include in their annual reports a full disclosure of information relating to the extent of compliance with principles of good governance and the state of internal control.

- The Kuala Lumpur Stock Exchange in 2001 implemented new listing requirements that strengthened provisions in areas relating to disclosure, financial reporting and enforcement through the following (Kuala Lumpur Stock Exchange, 2001):
- Enhancing the definition of independent director and strengthening the composition of the board of directors;
- Requiring directors to attend a prescribed minimum number of board meetings;
- Enhancing the composition of the audit committee, its functions, rights and authority; and
- Express statement of directors rights; and
- Imposition of obligations on directors.

### **Philippines**

The Securities and Exchange Commission (SEC) enforces regulations on conduct and disclosure according to the Philippines' US-based Corporation Code. Publicly listed companies have to meet conduct and disclosure requirements. Basic rights of shareholders are adequately protected. Shareholders are entitled to a one share-one vote rule, with proxy voting legally allowed and practiced. The Corporation code required an annual general shareholders meeting to confirm decisions made by management. A shareholder can discuss concerns during the meeting without any required minimum shareholdings for such privilege. Major transactions made by the company such as amendment of articles, bonded indebtedness, sale of major corporate assets, investments in other companies, and mergers required approval by two-thirds majority vote of shareholders (Saldaña, 1999).

In 2000, authorities initiated several useful reforms including the new Securities Regulation Code which provided protection to minority shareholders through mandatory tender offers and prohibition of insider trading. In 2001, the SEC reinforced this with initiatives promoting transparency and improved regulatory environment through a new framework based on international standards. Financial reporting was tightened requiring companies to provide annual reports with balance sheets and profit and loss statements to the SEC. New rules on shareholder representation, board structure and legal actions against erring directors were imposed (Securities and Exchange Commission, 2001).

In April 2002, the SEC approved the Code of Corporate Governance which required listed companies to draft their respective manuals on good corporate governance based on the principles of the Code. Under the Code, a company's board of directors was held responsible for adhering to fairness, accountability and transparency in overseeing the operations of the company. Board members who do not attend meetings regularly and do not disclose the extent of their business interests may be suspended from the board. Board members and top management were also required to undergo a regular performance evaluation. The Code required listed companies to form four board committees which would oversee audit and compliance, nomination, compensation and risk management and to rotate their external auditors or handling partners every five years (Philippine Daily Inquirer, 2002).

Board members number between 7 and 11 representing the largest shareholders of a company. The board of directors is not explicitly mandated by the Corporation Code to consider the interest of minority shareholders. However, the Code prohibits the removal of a director without reason only if minority shareholders shall lose their representation on the board as a result of such action. A shareholder can file derivative suits against directors, but this process is costly and ineffective as conflicts take a very long time to resolve. Independent directors are not acceptable for most companies because family members and close associates who dominate ownership prefer to discuss business issues within the family.

In general, the legal framework for shareholder rights is adequate. However, in practice, shareholder protection is undermined by the dominance of large shareholders in corporations even for major decisions involving two-thirds vote. There is very little deterrent on management regarding conflict of interest and insider trading because the Corporation Code only required special approval by two-thirds vote, which can be done by large shareholders due to dominant control. Insider trading regulations are poorly enforced.

### **Thailand**

The Public Limited Company Act 1978 regulated Thai publicly listed companies. However, some rules and regulations of this law were perceived to be too restrictive and were discouraging companies from going public. There were concerns that the provisions regarding criminal prosecution and penalties of directors and management

were harsh and inappropriate. It disallowed cumulative voting. The law also prohibited the largest shareholders, as a group, from holding more than 50 per cent of total outstanding shares and other shareholders from holding more than 10 per cent of outstanding shares individually. Hence, in 1992, this law was amended as the Public Company Act of 1992 and promoted the development of public companies. It relaxed the contentious provisions of its predecessor. Cumulative voting was made optional, the limit on shareholdings by the largest shareholders was increased to 70 per cent of total outstanding shares and lighter penalties for management misconduct were imposed. However, the new legislation removed a number of provisions that would have kept public companies prudent and diligent in their operations and this may have contributed to the 1997 financial crisis.

The protection of minority shareholders was inadequate under the Public Company Act of 1992. The minimum share required to exercise some of the shareholders rights were too high. For example, the right to call emergency shareholders meeting requires 20 per cent of total eligible votes, which is 10 per cent in other countries. There are also regulatory loopholes. For instance, in case the required quorum is not met in shareholders meetings, decisions are made and recorded regardless. Minutes of shareholders meetings are often drafted prior to the meeting and can take up to one year to get disseminated. Thus, small shareholders are minimally involved in corporate decision making and inadequately informed of corporate decisions (Lipaphayom, 2000).

The Securities and Exchange Commission of Thailand (SET) requires that at least two directors be independent directors. However, in the Thai context, "independent" is interpreted only as being non-executive, which would only exclude insiders (i.e., management and employees) but could include anyone with personal ties with certain insiders. Hence, independent directors can come from friends and family of controlling shareholders who would not oppose management. A more serious issue is the accountability of the directors with the current rules and regulation. It would be very difficult to prove misconduct on the part of a director because much is subject to interpretation.

In the area of transparency and disclosure, accounting in Thailand is notorious for its creativity and imagination. Most companies maintain two accounts: one for management, another for the authorities. The major weakness in Thai accounting was in the method used to value assets. Rules are unclear regarding the methods by which assets can be valued and accountants can manipulate the numbers to make financial reports look good. Poor accounting standard can be attributed to insufficient regulatory supervision and light penalties in case of negligence or violations. Auditing is also poor and suffers from potential conflict of interest. Auditors often develop a good business relationship with its clients and thus unwilling to report potential anomalies.

Since 1997, the Thai government has implemented new measures to protect shareholders' rights and interests, including the upgrade of accounting and audit standards, which required listed companies to establish audit committees and to appoint independent directors to company boards. The May 2000 Accountancy Law made company management, not the auditor or accountant, responsible for legal behavior. More importantly, in 2001, the Thai Securities and Exchange Commission amended the Public Limited Company Act which provided mechanisms for adequate protection of minority shareholders, transparency and disclosure. For instance, mechanisms to prevent directors from making use of companies' opportunities for their own benefit and to ensure that minority shareholders can exercise their rights in making decisions for the company have been put in place. Many disclosure standards now match best practice. Companies were required to provide shareholders with sufficient and timely information before shareholders' meetings, facilitate shareholders' rights to call for meetings, and by providing proxy. A number of corporate governance initiatives are planned for 2002: to introduce a "governance rating" which will rate listed companies on the basis of transparency, fairness, accountability and responsibility of companies and directors and to create an independent association of minority shareholders to act as a representative of minority shareholders in meetings and monitor business operations of listed companies (Securities and Exchange Commission, 2002).

## **Credit Monitoring and Protection**

Creditors have some control rights in companies and hence are also important players in corporate governance. A major mechanism to protect creditors interests is the implementation of effective bankruptcy or insolvency

procedures. These procedures provide means by which creditors can settle their claims against an insolvent company in an orderly manner. They also provide a forum for debt restructuring and an opportunity for the insolvent company to reorganize. The laws governing corporate insolvency are usually contained in bankruptcy laws or company laws.

Before the crisis, bankruptcy regimes were generally weak in most affected countries, and some were out-of-date. They were biased towards borrowers and did not provide sufficient protection for creditors. Following the Asian financial crisis, many of the affected countries began to reform their corporate insolvency, restructuring and debt recovery laws and procedures. Significant progress has so far been made, although significant implementation problems persist.

Three broad strategic approaches exist for corporate restructuring that could lead to more efficient bankruptcy procedures: centralized, decentralized and London. Governments play a major role in centralized approaches where its strategies prove more effective with small debts, simple corporate structures and high levels of shareholders' confidence in governments. On the other hand, the decentralized approach requires relevant shareholders to reach voluntary restructuring arrangements. This approach is more effective with large debts and complex corporate structures. An intermediate strategic approach, the London approach, is when creditor financial institutions and indebted firms worked closely with a government institutions outside formal judicial processes. It involves full information sharing between all parties; collective decision-making among creditors; standardized and binding agreements between creditors and debtors particularly in honoring restructuring agreements; clear timetables for resolution and penalties for broken agreements. This approach requires strong confidence in the official mediating institutions (Haley, 2000).

All the crisis-affected countries followed broadly the London approach. All the countries developed new out-of-court systems to restructure large corporations' debt such as the Jakarta initiative in Indonesia, corporate debt restructuring committees in Korea and Malaysia, and Thailand's corporate debt restructuring advisory committee.

#### **Korea**

Before the financial crisis, Korea had a formal liquidation and bankruptcy procedure. This procedure was furthered enhanced after the crisis. Banks and non-bank financial institutions have been taken over and recapitalized by the government, reorganized under government supervision and liquidated. A number of purchases and mergers have occurred prompted by injections of government capital. A portion of bank assets have been shifted to the Korea Asset Management Corporation (KAMCO), which, at the end of 2002, had resolved 57 per cent of the face value of non-performing loans purchased from financial institutions since 1997. In October 2000, through the Law on Corporate Restructuring Investment Company, Korea has established a range of corporate restructuring vehicles (CRVs) that can acquire non-performing loans, distressed assets and assist in the restructuring and recovery process. The distressed debtor then dealt with the CRV to formulate a workout process. A workout process involved debt/equity conversions, term extensions, deferred payment of principal or interest, reduction of interest rates, waiver of indebtedness, provision of new credits, sale of non-core businesses and new equity issues. This process was introduced through the "Big Deal" measures. The Agreement Among Creditor Financial Institutions on the Establishment of CRVs strengthened this process in February 2001. In September 2001, the Corporate Restructuring Promotion Law was implemented. It provided a framework by which creditors of a distressed debtor that owed 75 per cent of the debt owed to financial institutions could grant a moratorium to the debtor to allow it to prepare a Memorandum of Understanding for their restructuring. This would streamline the resolution of creditor disputes (Ministry of Finance and Economy, 2001).

#### **Indonesia**

After the crisis, the government raised creditor protection by amending its bankruptcy laws, establishing a new commercial court and introducing an out-of-court framework for restructuring non-performing loans. In January 1998, the Indonesian government established the Indonesian Bank Restructuring Authority (IBRA) to restructure troubled banks while the Indonesian Debt Restructuring Agency (IDRA) was established to restructure foreign debt in July. This allowed debtors and creditors to insure themselves against exchange risks, once rescheduling agreements were reached. In August 1998, the Indonesian government introduced a substantially revised bankruptcy law that modernized the legal infrastructure for bankruptcy and established a Special Commercial Court that facilitated the rapid resolution of commercial disputes. The revisions to the bankruptcy law included the following (Iskander, *et. al.*, 1999):

- Procedural rules designed to ensure that bankruptcy proceedings were efficient and transparent;
- Provisions that allow for the appointment of receivers and administrators from the private sector to administer the estates of debtors;
- Greater protection of debtors' assets; and
- Limitations on the ability of secured creditors to foreclose on collateral during proceedings.

Subsequently, in 1999, a law against corruption, collusion and nepotism was adopted. In 2000, the Jakarta Initiative Taskforce (JITF) was created to assist in workout procedures and restructuring mainly for out-of-court corporate settlements. The JITF is an independent government agency whose mandate was to facilitate active corporate restructuring and accelerate the approvals required for restructuring plans. As of December 2002, the JITF had worked out about \$18.9 billion out of the total \$29 billion in corporate debt that it had been tasked to restructure.

Despite the comprehensive legal and institutional framework, the progress of corporate restructuring seems slow. The IDRA has registered little debt with 80 bankruptcy cases despite almost half of Indonesian corporations experienced insolvency while IBRA has disposed only about 20 per cent of the total assets under its management at the end of 2002. Much of the restructuring has focused on debt-to-equity swaps, loan extensions and debt discounts rather than asset sales.

#### **Malaysia**

Even before the financial crisis, Malaysian bankruptcy laws were sound by international standards and corporations carried less debt than companies in other East Asian countries. With reforms being introduced since the crisis, the resolution of non-performing loans was facilitated. In 1998, the government established Danaharta, an asset management corporation, as a pre-emptive measure to purchase non-performing loans from banking institutions. Danaharta could also acquire the assets and liabilities of a company in financial difficulty, if requested. In September 2002, Danaharta announced that it had dealt with its entire portfolio of non-performing loans projecting an expected recovery rate of 57 per cent. The Malaysian government also established the Corporate Debt Restructuring Committee (CDRC) to assist creditors and debtors to agree on restructuring and workout programs. As at the end of July 2001, the CDRC was involved in the restructure of 46 applications involving debts of over RM26 billion, representing about 40 per cent of the total value of debts referred to the CDRC. In August 2002, the CDRC ceased operation after successfully completing the restructure of all the debts it accepted (Ariff, *et. al.*, 2001; Asian Development Bank, 2003).

#### **Philippines**

Unlike the other crisis-affected countries, the Philippines did not establish an asset management corporation relying instead on banks to work out their own non-performing loans. In 2002, however, due to the rising level of non-performing loans, which was about 17 per cent of the total assets of the banking system, the Government proposed a bill for the creation of a specially designed asset management corporation or special purpose vehicles. The proposed bill was signed in early 2003 and laid out a framework for debt relief and recovery measures to financially distressed enterprises and offers four modes of rehabilitation: pre-negotiated rehabilitation, fast-track rehabilitation, court-supervised rehabilitation, and dissolution-liquidation. The Securities and Exchange Commission, *Bangko Sentral ng Pilipinas*, Department of Justice, Capital Markets Development Council and the Insurance Commission favorable endorsed the law (Committee Affairs Department, 2002; Asian Development Bank, 2003).

#### **Thailand**

The bankruptcy system in Thailand prior to the crisis was weak. It made it difficult for creditors to obtain payment against bankrupt borrowers. Debtors used different ways to stall the bankruptcy process, including procedural disputes, which could cause a delay by at least a year. Actual bankruptcy proceedings took more than five years to complete, on average.

Thailand introduced a number of legislative reforms to its insolvency laws and practice following the financial crisis, which strengthened creditor rights.

These reforms included:

- Enactment of new corporate reorganization procedure in 1998; establishment of a specialized bankruptcy court in 1999;
- Establishment of the Corporate Debt Restructuring Advisory Committee which facilitated formal out-of-court debt workouts; and

- Introduction of taxation and other incentives to promote restructuring and investment.

In September 2001, Thailand established the Thai Asset Management Corporation which managed and restructured non-performing loans transferred to it by state and some commercial banks. To date restructuring has often involved only debt rescheduling with long grace periods and lower interest rates. There are only very few cases of thorough corporate restructuring involving write-offs on banks and forcing companies to shed non-core assets (Economic Analytical Unit, 2002).

## **The Role of Government in Corporate Governance**

Governments have a major influence on corporate behavior and corporate policies, including corporate governance. They play an important role in encouraging stronger market forces and requiring corporations to behave responsibly and in accordance with the law. Governments provide the basic institutional framework for rules based business. Most governments in Asia have privatized state enterprises and banks, deregulated controlled sectors, boosted regulation supporting corporate transparency and engaged in corporate restructuring.

## **Policy Implications and Conclusions**

Stronger market forces and tougher regulations are gradually transforming the business environment in East Asia. Company financial reporting, accounting and auditing standards provide for adequate transparency and disclosure. For instance, many of Thailand's disclosure standards are close to matching best practice with 95 per cent of auditing standards and 90 per cent of accounting standards complying with international standards. Tougher bankruptcy laws and listing rules have started to protect minority shareholders' and creditors' rights. Hence, in March 2002, ten companies were delisted from the Korea Stock Exchange for accounting irregularities; the Jakarta Stock Exchange exposed and sanctioned 40 companies for non-compliance while the Kuala Lumpur Stock Exchange had a total of 481 investigations against listed companies for breaches of listing requirements. The *chaebols'* market power has been reduced with some broken up and sold while the others were forced to focus on their core competencies by divesting collateral business lines. Based on experience in other countries, corporate governance improved when the extent of disclosure increased, the power of large inside shareholders was curbed, and an adequate number of outside shareholders were present.

While considerable progress has been made in the ongoing process of corporate governance reform in the five crisis-affected countries, gaps to achieve best practice remain. Despite sound and comprehensive laws and regulations, weak implementation and enforcement have hindered progress due to weak courts, lack of experienced personnel, powerful vested interests and lack of political will.

There is no single model of good corporate governance. Differences in corporate governance among countries depend on their respective economic, institutional and legal structures, and cultures. However, to remain competitive in a changing world, corporations must innovate and adapt their corporate governance practices to meet challenging demands and face new opportunities. Similarly, governments have the responsibility for creating an effective regulatory framework that provides for flexibility to allow markets to function effectively and respond to expectations of shareholders. There should be a strong commitment in increasing transparency in the judicial system and regulatory bodies by building the necessary institutional capacity.

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### End Notes

<sup>1</sup>A *chaebol* is characterised as a group of large corporate groups operating in diverse and mostly unrelated industries, usually under the ownership and control of a single family. The success of *chaebols* has highly depended on the strong support of the state by channelling cheap credit to them, coordinating investment and export strategies and controlling wages.

<sup>2</sup>Restructuring of the 6<sup>th</sup> to the 64<sup>th</sup> largest *chaebols* was carried out through a program referred to as 'Workout'. The top five *chaebols* were given a different treatment from other smaller *chaebols* since their business activities involved key sectors and are linked to hundreds of subcontractors; thus, their economic influence was even greater than their size would suggest. The five largest *chaebols* were a target of more extensive reforms than the other conglomerates.

# **Women and Business in Era of Globalization: Some Implications and Strategies for Empowering Women**

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## **Abstract**

**Globalization: what does it mean for women? Globalization is primarily viewed as a complex and multifaceted economic process, it impacts at various level of political, social and cultural interfaces. This paper discusses women's issues and gender concerns in globalization and how businesswomen has been impacted as a result of globalization. As we are aware globalization has confronted business with a range of drastic changes in markets, technology, society and consumer behavior. Understanding such change has become crucial for women business owners because as business people they have to anticipate the effect of globalization on their business. Discussion is focus on issues in relation to opportunities and threats for women in this era of globalization such as the changing role of women, empowerment of women and greater independence for women. The effect globalization has had on culture is immense and diverse. It has affected people's cultural behaviors in different ways. People have had to change their living ways. The loud echoing advertisement rhythms of the famous coca-cola drinks can be heard across boundaries in towns, cities and township and even in remote rural areas where drinking water is a problem to get. On the face of it, there are gains for women but many challenges remain. The paper concluded with some possible action of looking at this phenomena which might give feminist the basic to think, unite and act.**

## **Introduction**

The concept of 'globalization' is primarily viewed as a complex and multifaceted economic process, it impact at various level of political, social and cultural interfaces. Globalization is then certainly not a simple term. The ideology that undermines globalization focuses on trade as the vehicle for improving the condition of people everywhere. It is an old idea which sees the increasing integration of international economics as a positive step and one which inevitably occurs, if markets are not unduly hampered by governments. The restructuring associated with globalization doesn't even attempt to promise anything to those traditionally disadvantaged in our society : the unemployed cannot expect jobs, the poor cannot expect prosperity and women an other disadvantaged people cannot expect equality (Cohen, 2000) [1].

Hence what I thought I would do is to reflect on globalization as the broader context of global production system and the challenges for women in business. I would like to take us to a discussion and see the connection between globalization and what it means for women in business. Is being self - employment and success in business a way to empowerment or the vice-versa ?

As we are aware globalization has confronted business with a range of drastic changes in markets, technology, society and consumer behavior. Understanding such change has become crucial for women business owners because as business people they have to anticipate the effect of globalization on their business. Discussion is focus on issues in relation to opportunities and threats for women in this era of globalization such as the changing role of women, empowerment of women and greater independence for women. On the face of it, there are gains for women but many challenges remain. The paper concluded with some possible action of looking at this phenomena which might give feminist the basic to think, unite and act.

## **Defining Globalization**

Globalization mean different things to different people. Some proponents see it as not only inevitable but fundamentally beneficial, if only we could distribute the benefits better. Yet many millions experience it not as progress, but as a descriptive, even destruction force. Much has been said and written about globalization. Many

intellectuals, politicians, businessmen, management gurus and others have touched on this much hyped phenomena. But what is globalization? Is it a new and recent phenomena? Is globalization accidental or a natural evolution of mankind's ever - advancing civilization? It is imperative that we all understand globalization is an on -going process and not a static condition. This implies globalization is a progress in mankind's continuing course of development. In general term, globalization can be defined as a process that disintegrates the geopolitical borders between countries and transforms the world into one global unit (Saifuddeen, 2000) [2].

'Globalization simply meant that businesses knows no national boundaries. Capital and work - your work ! - can go any where on earth. The consequences of all this is painfully simple; if the world operates as one big market, every employed will compete with one person in the same job. There are a lot of them, and many of them are very hungry ' (Grove, 1995) [3]. At its simplest, it is about footloose corporations taking investment wherever labor is cheapest and most productive, and it is about the growing plight of unskilled labor. People around the globe are more connected to each other than ever before. Information and money flow more quickly than ever. Goods and services produced in one part of the world are increasingly available in all parts of the world. International travel is more frequent. International communication is common place. This phenomenon has been titled 'globalization'. The 'era of globalization' is fast becoming the preferred term for describing current time. Just as the Depression, the Cold War Era, the Space Age and the Roaring 20's are use to describe particular period of history, globalization describes the political, economic, and cultural atmosphere of today. While some people think of globalization as primarily a synonym for globalization business it is more than that. The same forces that allow business to operate as if national borders did not exist also allow social activist, labor organizers, journalists, academics and many others to work on a global stage,' We can therefore define globalization as a social process in which the constrain of geography on economic, political, social and cultural arrangement recede, in which people become increasingly aware they are receding and in which people act accordingly' (Waters, 2001:5) [4].

The core of the idea is that the world is under going a process of ever - intensifying interconnectedness and interdependence, so that it is becoming less relevant to speak of separate national economies, or separate national jurisdiction founded upon principal like the sovereignty of the territorial nation - state. The idea of a global system suggest that this interconnectedness and inter dependent is making it increasingly difficult for social units like nation - state, localities and even individuals to sustain identity without reference to more encompassing structure and flows. At the same time, diversity is still rife in what is undeniably a pluralistic world; indeed it many be heightened by a sharpened awareness or consciousness of global pressures and expressed in form of cultural resistance or attempt at economic and political autarky (Oxford, 1995) [5].

To this end, it is demanded that, whatever the nature of their economies, their level of development, and whatever their location in the global economy, all countries must pursue a common set of economic policies. In particular, they must permit the free and indiscriminate operation of transnational corporations in their economies: open their economies freely and indiscriminately to imports and concentrate on exporting what they are supposed to be good at; reduce the role of governments in the economy to that supporting the market and private enterprise; and leave the determination of prices of goods, currencies, labor, as well as the allocation of resources to the operation of the market. Seen in this way, globalization is primarily not an impersonal process driven by laws and factors of development-such as technology-operating outside human control and agency. Rather it is a conscious program of reconstructing international economic and political relations in line with a particular set of interests (the profit motivations of the businesses, especially the transnational corporations of the advanced industrial countries) and vision (the dogma of the primacy of the free market and of private enterprise in all processes of human development) (Manenji, 2005) [6].

## **Gender Implications of Globalization**

Clearly gender is important along the whole range of our concerns with globalization. Gita Sen (1999) [7] has out line some of the women's issues and gender concerns in globalization. There is women's labor and employment - the attention to the global assembly line and the fact that women are increasingly in the so-called services sector particularly in this region, as well as, in Latin America. It shows women have become central to current production

systems. There is no doubt that in very many parts of the South as well as the North, women are part of the labor force in a way that we were not before and the employment issues are key issues for us, right now. Related to this is women's migration and the nature of migratory laws. Where as previously international migration used to be largely male, migrants are now very heavily female in many regions, including South-East Asia. What has been happening as a result of the increasing colonization of resources, is that rural women, particularly those who belong to communities used to managing resources on the basis of common property and indigenous knowledge of biodiversity, are increasingly being squeezed. Women are also found in the informal sector, itself changing as a result of either its integration within or marginalization by transnationalized production systems.

Data gathered from research in Asia, Africa, the Caribbean, the Middle East and Latin America on the impact of structural adjustment programs on women indicate that: (Sparr, 1994) [8].

- an increasing number of women look for income-generating work outside the home to compensate for the husband's loss of job, less steady income and/or sharp fall in family purchasing power.
- more women than men may become unemployed;
- working conditions for women deteriorate;
- wage differentials between men and women grow;
- as the formal sector of employment diminishes, more women enter the informal sector;
- women do not experience increasing employment as a result of export promotion of manufactured goods;
- export cropping often does not benefit in terms of paid work, better economic status, or bargaining power within the household;
- women's unpaid work escalates with structural adjustment outbacks in social services, higher prices for basic necessities, unemployment and job insecurity;
- progress in girl's education slows as women's unpaid work becomes heavier and mothers ask them to assist in the home;
- food consumption diminishes as a result of rising food prices and changing agriculture policies;
- girl's health and mortality rates worsen as a result of the above;
- women's reliance on credit places them under greater pressure by creditors to pay back debts;
- an increased number of women are heads of household; and
- many women lose the support of the extended family as families become nuclear.

The Asian Rural and Indigenous Women's Conference Against Globalization Convened by The Asia-Pacific Forum on Women, Law and Development in 1998 has taken a close effects on women, their families and that communities. It is realized that the onslaught of the global market and foreign monopoly capital not only on their living condition but also on the political, social and cultural aspects of their lives as such:

- i) Multiple role of women in sustaining the family and the community and contributing to the national and regional economies, yet the worsening unjust, inhuman and marginal treatment that they get in the supposedly "new economic order",
- ii) Further undermining of the rights of indigenous women to their ancestral resources : land, water, forests and other livelihood sources-due to logging concessions, mining operations and hydroelectric projects;
- iii) Large-scale, export-oriented agricultural production such as oil palm, cocoa, pineapple, cut flowers, teak trees, bananas, and trees for paper and pulp which threatens food security, worsens landlessness, intensifies impoverishment, further marginalizes and dislocates women, and degrades the environment;
- iv) Migration of rural and indigenous women who get heavily indebted, selling or mortgaging what little property they have for job opportunities abroad, ending up with low wages and at times sexual and physical abuse, and having to deal with disrupted families, adverse effects on young children losing their mothers' care, family breakdowns, loneliness and cultural shock;
- v) Sacrifice of the agricultural sector to an export-driven industrialization strategy in so called NICs where women are not acknowledged as independent producers nor managers of agricultural production; and where they are excluded from opportunities in farming education, subsidies for the purchase of farm machinery, financial support from and participation in agricultural cooperatives;

- vi) Destruction of rural self-reliant economy, inflation, high cost of production inputs and deterioration in social services resulting from opening up to the global market and adoption of globalization policies and programs in Indochina and Central Asia;
- vii) Increasing resourcelessness and enslaving conditions of women particularly created through the new economic disorder that more than ever guarantees profits for the multinational and transnational corporations (MNCs/ITNCs) and their partners, the local ruling elite, while destroying nascent local manufacturing and trading due to unequal competition from imported goods;

In most countries of the world, if not all women form a disadvantaged section vis-avis men. Malaysia is no exception. If the country's economy has to fight an unequal battle with the development countries in the international market, its society is doubly burdened by the inequities suffered by women, enhanced by the effects of this unfavorable competition. It is true that a section of Malaysian women - the elite and the upper middle class has gained by the exposure to the global network. More women are engaged in business enterprises, in international platforms and have greater career opportunities as a result of international network. Freer movement of global, and capital is helpful to this section.

On the contrary Rowena (2001) [9] has presented a case study of the Philippines showing how indigenous women in varied ecological setting in the Philippines survive and struggle as a result of globalization. She also highlighted the issues attendant to the changing role of indigenous women, as well as the issues that must be address by policies and women programs. The three features of globalization - liberalization of trade investment privatization of public assets, and deregulation of social and ecological concerns - have increasingly placed the women of indigenous communities at the central of the social arena. Indigenous peoples(cultural communities whose traditional, pre-colonial institution have persisted) are characterized by their strong adherence to the ecological principal of sustainable resourced management in their production system. Whether farming in the uplands or plains, or surviving on riverine and marine resources, women of indigenous communities across diverse habitat in the Philippines have served as caretaker of the environment and the family in what use to be self-sufficient villages.

In Africa, women have mostly been involved in farming, in employment as civil servants, and in industry. They have also been involved in small-scale entrepreneurships. No doubt, these sectors have been severely affected by the introduction of trade liberalization. Women on this continent contribute the most critical factor in agricultural production and agriculture. Yet liberalization has failed to ensure the availability of credit, agricultural inputs such as fertilisers and insecticides at affordable prices. The marketing of their produce has been thrown in the hands of businessman whose sole objective is profit maximisation. The result-food security in Africa is highly threatened. Women constitute 60% percent of the communal farmers in Zimbabwe. In rural areas the impact has been so serious that rural urban migration has increased to unfortunate proportions. This in turn has led to the increased of squatters in urban areas and crime which affects mostly women and children (Manenji, 2005).

In Zimbabwe, some women have resorted to across-border trade. This has had its own social and cultural repercussions. Children in this case are left out of parental care and the number of rape cases on young children has become an alarming cause of concern. In Zimbabwe alone, there is an average of four reported cases of rape every day. In other cases there have been reports of married women getting involved in extra-marital affairs once they across the border while the spouses they have left behind indulge in the same, complicating and worsening the AIDS pandemic situation. Children no longer sit around the fireplace in the evening to listen to stories to promote the values of respect, integrity, peace, love and unity, even in the rural areas where this sort of environment would fit best. People-men, women and children-are all angrossed and embroiled in the struggle for survival-the struggle to get a bowl of meal to fill the tummy at least for the day (Manenji, 2005).

Globalization and associated increase in foreign direct investment have had a major impact on employment in the developing countries, particularly in the export - led manufacturing sector where the labor force is predominantly female. Figures from the International Labor Organization showed that women employment has grown at a faster pace than men's in the last 20 years. In 1978, for example, Bangladesh had only four garment factories. By 1995, it had 2,400 employing 1.2 million workers 90% of whom were young women. In 1992, women held 84.8% of jobs in exports processing zone in Sri Lanka, compared with 46.4% in the economic as a whole,

Although not high, and consistently lower than for men wages in such enterprise are often more attractive to women worker than alternatives, (Department for Economic and Social Affairs, United Nations, New York, 1999) [10].

On the face of it, these are major gains for women. A deeper analysis shows, however, that many challenges remain. Improvements in employment opportunities do not necessarily lead to greater independence for women, or improved bargaining power within the household. Studies of women workers in garment factories in Bangladesh and India, for example, have shown that close to half of them hand over their wages to their husbands, or some other male member of the household. Time allocation studies from a diverse selection of countries around the world show that in general women's burden of household work, and primary responsibility for childcare, do not diminish with increased participation in paid work. Thus, paid employment in many instances gives rise to a "double day" for women.

The main benefits to women from globalization have been in formal sector employment. Overall, however, this only accounts for a small proportion of women's work. In developing countries most employment opportunities, for both women and men, are in the informal sector. In India and Pakistan, it is estimated that informal employment makes up 75% and 70% respectively of total manufacturing. In Africa, the informal sector share of non-agricultural employment is equally high. The reality for most poor women is that new work opportunities are some distance away from formal production lines, as firms increasingly favor sub-contracting and outworking. This provides precarious employment at best, and fragments and isolates the female labor force in ways which reduce bargaining power and exert downward pressure on the terms and conditions of work. The uncertainties and volatility of global markets act as disincentives to firms to provide more secure and better paid employment. As a result, a very high proportion of women workers work long hours for low pay, in insecure jobs with little or no social protection (Dollar and Gatti, 1999) [11].

Outside of the formal sector, women are very active in both micro and small enterprise, and in agricultural and other forms of rural activity. A very large proportion of women's work in these sectors remains "invisible", and is rarely accounted for in economic analysis or national accounts. Many women work in sectors of the economy servicing mass markets, where price-based competition is fierce. Small, women-run businesses often can not compete with cheap imported products. The general lack of skills development and training tend to perpetuate women's economic disadvantage. Poor information flows, combined with low levels of literacy, act as further barriers to women's economic advancement, along with women's limited access to, and control over assets such as land.

A study by Cecilia Ng (2000) in Malaysia has also show that globalization has imparted the Malaysia women. The export boom in Southeast and East Asia in the last quarter of the 20th century was fuelled by the contribution of women in export-related activities and through the remittances made by migrant women workers. In Malaysia, the electrical and electronic products comprise about 60 percent of the total manufactured exports of the country with the industry generating about one-third of manufacturing employment in Malaysia, Majority of those employed, particularly at the operator level, are Malay women. As noted above, this trend towards the feminisation of paid employment in Asian countries was driven by the need of employers, usually transnational corporations (TNCs), for cheaper and more flexible sources of labor, Global capitalism makes use of the existing patriarchal ideology whereby women are perceived to be more subservient to (male) managerial authority, less prone to organize or be organized and easier to dismiss using such life-cycle criteria as marriage and childbirth. (Cecilia Ng, 2000) [12]

On the one hand, the globalization of trade and the economy has definitely opened up economic and income opportunities for women, resulting in her improved status in the household and an increase in her position in society as well as her self esteem. It has opened up choices for women in both the manufacturing and services sectors and for those in the manufacturing and services sectors; and for those in the higher-valued industries, it has also meant an increase in her skills. Cecilia's (2000) research on women electronics in two TNCs found that they are confident, have a great sense of pride in their company and a positive perception of themselves as part of the company in which they work. With the expansion of ICT, information processing work can now be globally distributed, leading to new modes of working, such and telework, teletrade and e-commerce. Women as off shore data entry workers, software programmers and system analysis are finding novel employment opportunities in this digital aged. In her study of software companies in Malaysia 30% of the software personal were women. However,

on the other hand, Cecilia's (2000) have also noted that the majority of the women workers labor under inferior working condition and often on shifts with serious implication for the social and physical health. Those in the lower end, labor - intensive consumer electronic industries suffer from health problems that include extreme fatigue and general health problem due to chemical hazards and job stress.

## **Women's Issues, Challenges and Gender Concerns in Globalization for Businesswomen in the Informal Sector**

The increasing employment of women in the informal sector points to the fact that women will engage in various odd jobs and economic activities to ensure the survival of their families in time of crisis. As men were displaced from their jobs in agricultural, manufacturing and construction, women take of their place in the workplace, such as i) multiple burden as they attend to both production and reproductive chores, ii) below minimum wages, longer washing hours and harsh working condition, as their activities are largely unregulated and unmonitored iii) lack of social protection due to absence of clear employer - employee relations and lack of access to benefits such as maternity, medical, etc. iv) job insecurity, v) lack of capital, vi) limited access of profitable markets and vii) lack of skills (Mendoza 1996) [13].

Development specialists have noted that "in developing countries, where jobs in officially licensed enterprises are scarce, much of the population makes a living by working outside the official tax and regulatory systems. These people who make up the informal sector, are innovators, skilled at surviving, and sometimes prospering, in a highly regulated environment. Although the informal sector is an important source of jobs, income and even housing, its participants lose their full rights as citizens by operating outside the legal economy." (Lee, 1994) [14].

This legal vulnerability affects women particularly because so many are employed in the informal sector. According to a study of the Malaysian economy from 1985 to 1992, an average of 47.05% of women in the female labor force were employed in the informal sector. Of those, the vast majority, 61.2%, were employees, 21.8% were unpaid family workers, 16% were self-employed, and only 1 % were employers. Within the informal sector; an average of 26% of all self-employed workers were women. Of all unpaid family workers, 65% were female. Thus a significant portion of women's contribution to the economy -- in Malaysia and throughout the developing world -- is unrecognized and uncounted,(Department of Statistics, Malaysia, 1990) [15].

The typical urban or rural woman in Malaysia's informal sector has a primary education and an average household size of five. She entered the sector after she married and began bearing children; now she contributes substantially to the total income of her household. Approximately one third have incurred debt to provide capital for their businesses. Most urban women have worked previously in the formal sector. In recent years, a relatively new group has entered the informal sector. They are professionals with good earning power who have opted to go into business for themselves, often working out of their homes. Advancements in information technology and the democratization of work have made it possible for them to work outside the formal sector. Despite their contributions to the overall economy of the country, women in the informal sector face significant obstacles and challenges of low pay, lack of access to such resources as capital, education, and training; and exclusion from the policy-making process (Faridah et,al, 1991) [16].

Despite their numerical importance, women's business face special difficulties and are generally marginalized in the both national and international arenas. Women and therefore the business that they operate, are disadvantaged in many areas within the era of globalization. I quoted few cases here:

- (i) **Access to Capital:** For example, in Australia 43 per cent of women operating small enterprises, compared to only 29 per cent of men, commenced their businesses with less than AUS\$ 1000, These women were also less likely than the men to use personal savings or to borrow money to start their business [46 per cent of women sole-operators compared to 56 per cent of men].
- (ii) **Access to Technology:** Women may lack access to technology because of their lack of capital, poorer access to information or cultural stereotypes that either limit their effective access or make them dependent on men for access. For example, in some countries women's participation in education and particularly

technical and vocational education is restricted by cultural stereotypes, However, in the developed countries where these barriers are less serious, women's businesses have been found to use new technologies, at least in the field of information. For example, a 1994 survey of home-based women-owned businesses in the US found that more than 56 per cent had at least one computer, almost 4 in 10 had more than one, 213 had a fax or computer modem, 55 per cent used a cellular phone, 30 per cent used CD-ROM and 32 per cent used an on-line information service [National Association of Women Business Owners].

- (iii) **Access to Information:** Women are often excluded from active participation, and sometimes from membership, in business networks and professional associations. Their exclusion may result from lack of time due to their need to balance their domestic roles as wife and mother with their business roles. It may result from the social nature of the networks themselves, since many centre on shared non-business (for example, sporting, same school or club) interests that also tend to exclude women. It may also result from cultural barriers. For example, both businesswomen and their male colleagues may feel uncomfortable if the women participate in the social activities (such as after-work dining out and drinking) around which the business networks operate. Even in the US, women still find themselves doing less business travel than men and are excluded from certain kinds of [more policy-oriented] meetings.

In this section, I have made an attempt to analyze the challenges face by the Malay business women in this era of globalization. I briefly summarize the profile of the Malay businesswomen revealed by my study (Rohana, 2001) [17]. A number of 31 businesswomen were interviewed. The age of the businesswomen varied greatly, but more than half of them are between 31-50 years old and most of them are married and one of them a divorcee. Most of them have 3 children and above which is still in their schooling age. Generally, these women have the primary responsibility for children and for household maintenance. They tend to be middle-born rather than among the eldest as revealed by most previous studies. They have an average of 9 years of schooling for average Malaysian women thus they are considered to attained a low academic qualification. In term of work experience, more than three quarters of the businesswomen do not acquire any work experience (working outside the home) before they started their business, as they are full-time housewife.

Half of businesswomen were sole-owners of their business enterprises and the other half created their business in partnership with their husbands who are actually businessman and only 3 of them were in partnership with a non-family member. Businesses owned by these women are rather young (18 of them are 5 years old or less) and in most cases, it is the first and the only business of the businesswomen. They started their business with a very small capital investment (74% involved less than RM 1000) mostly from the development agency (Amanah Ikhtiar Malaysia) and a few from personal and family savings. Generally they have been found to venture into food production, food-trading and service-oriented type of business. Their average monthly income of between RM 1000 - RM 2000 is considered encouraging as this amount is equivalent to a person who attain a diploma working as a wage-worker in the government sector in Malaysia. The quantitative data has revealed that this group of Malay rural businesswomen are 'pushed' into self-employment and majority was unemployed before start-up. However, unemployment is not the sole determining factor in the self-employment decision among these Malay rural women. More positively, 'pull factors' such as economic rewards, ambition and desire for autonomy are also cited by these business women as motivations.

These businesswomen encounter distinct problem in managing their business. These problems fell into two categories : (i) specific gender - related problem and (ii) business ownership problems which can have a gender dimension. Among the specific gender - related problems are conflict between domestic commitments and business ownership, lack of confidence, lack of role models and feelings of personal isolation. Apart from these problems that falls under business ownership problem includes the restricted access to finance and lack of relevant business skills and experience, The study indicated that finance was the most common problem quoted by the businesswomen in this study. Majority quoted that their source of capital came from the family members and from the Amanah Ikhtiar Malaysia Project. These women face financial problems of which financial institution make it difficult for the women to borrow of which the bank wants collateral that the women do not have.

The problem and issues that emerged from this study were considered by the women to be those which posed as challenges to them as businesswomen, Among others are proper management of cash flow, bookkeeping and marketing of their products. Apart from their problems, they expressed difficulties in managing the dual roles

they have to perform. These women perceived themselves as living a double life, where half of the day they had to be hard driving at work and then the next half switch to feminine and caring after working hours. But on close examination, this conflict was experienced by those businesswomen who were concerned about maintaining their femininity, and appeared to be outwardly symbolized by manner of dress always wearing the 'baju kurung' and 'tudung' (the headdress).

For small countries like Malaysia, this globalization process is difficult to contain given the complexity of its impact. In the country's efforts to minimize constraints associated with the globalization process, the role of the state, organization and women herself is indeed critical if the businesswomen wish to become a successful businesswoman. It is only through the enhancement of these capabilities that Malaysia will be able to face the complex challenges posed by the globalization process. Hence, in recognition of the social implication of the current economic crisis and its gender - specific impact on women and women's businesses. I recommend that we establish and expand social safety nets for women by taking actions such as :

- i) promoting access to credit and alternatives methods of financing women's enterprises in both the informal and formal sectors.
- ii) promoting women's knowledge and awareness of the economic crisis and the effects of trade liberation and globalization on women.
- iii) initiating alternative strategies for improving women's livelihood in the informal sector - a sector which should be reassessed as a potential energizing and growth sector, not as a sector of last resort (Rohana, 2001) [18].

## **Strategies to Empower Women in Facing the Effects of Globalization**

### **Humanizing Globalization**

A study by A.H Ronning et. AI (2001) [19] suggested that a strategy to empower women in this era of globalization is 'humanizing globalization'. Putting a human face on globalization means drawing attention to the many positive aspects of our new global world which enable us to communicate and network across national, social and sexual boundaries. However, as we interact globally we must ensure that the effect of globalization, whether political, economic, or cultural on the individual human being is always borne in mind. Globalization should not be sought at the cost of the weaker segment of society, of the disadvantaged. On the contrary, globalization should contribute to making the lives of people, both men and women, easier, and increase access to the benefits of modern technology and the advanced systems of the world.

However, if women are to be a part of this New Economy they must be thoroughly equipped with the necessary knowledge and skills to accommodate themselves to live along the new wave of economy. In other words, women should be empowered in terms of the economy. Since economic globalization can no longer be stopped, it is imperative for women to educate and train themselves and be provided with fair opportunities, so that they can utilize the economic and technological developments to their own advantage in ways that enhance, rather than detract from human experience. It is important for women to be present and active so that a human face and not just profit motives can control what happens to local societies and their families.

### **Empowering Women**

If women are to participate in the ongoing global process they need to be enabled. All women have a contribution to make to society. They must be enabled and empowered to develop a sense of self-confidence and belief in their own abilities, and to use their actual competencies This means acquiring educational skills of different kinds including competence in the use of, and in the designing and implementation of information and communication technologies (ICTs). Members of women organization should focus on mobilizing this new power to enhance human rights, increase access to education, prevent environmental degradation and protect workers' rights.

A power-shift is taking place, as the world becomes increasingly connected by "bandwidth," or the capacity of a country's cable, telephone lines, satellites, and fibre optics. This has changed the traditional way of looking at power as a hierarchical chain of command and control with national government officials or corporate officers at the top of the structure. Globalization and the mass media is driving the world increasingly toward decisions that place economic self-interest above that of other interests. The amount and rate of information dissemination within a

population places power in the hands of those who can access it, connect to others, and know what to do with the knowledge and connections gained. Women must learn to use the power of media technologies from the Internet to radio and simple tape recording. Learning media techniques and objectives; and advocating for one's country to improve its media infrastructure is essential. Empowerment entails learning new skills, obtaining knowledge, and taking action to force policy changes that reflect women's concerns upon governmental institutions and private corporations.

Programs implement should develop skills in understanding the new nature of power, and methods of obtaining it negotiating, mentoring, partnering and networking for advancement in careers and civic affairs so that women can reach social and political decision-making positions conflict prevention, management and resolution methods at the personal, local, national and transnational levels. So that women and girls do not fall into the digital divide, it is important to be information literate. This means being a competent, independent learner and one who recognizes that accurate information is the basis for intelligent decision-making. Hence, women organization and other related agencies should take the initiative to set up programs for adults in basic literacy and post-literacy, as well as programs concentrating on economic literacy, legal literacy and health literacy and ensure that such programs are on women's own terms and adapted to their specific cultural and local needs.

## **Conclusion**

Globalization and trade liberalization have the potential to bring huge benefits to women, but these are far from being fully realized. Women in many parts of the globe are undoubtedly better off as a result of the opening of markets and upswings in global demand. Many others, though, have seen reductions in livelihood security and poor terms and conditions of employment. At the same time, new global conventions and agreements on human rights and labor standards, improvements in information flows, and the development and strengthening of women's global networks, all create opportunities to harness globalization for the benefit of poor women as well as men.

These benefits will not be obtained without actions being taken at global, national, and local levels, to open up opportunities for women, and remove barriers which stand in their way. In supporting actions of this kind, we as women, academician and researchers will.

- encourage and support governments in implementing programs for women's economic empowerment and identifying policy instruments to remove barriers to this, including gender-aware approaches to land reform, credit and other financial and non-financial services, human development, market and other forms of information, and skills development and training;
- provide technical and other forms of support for the gender-sensitive reform of legislation and regulations, to improve conditions of employment including adherence to core labor standards, equal pay for equal work, and attention to the rights of informal sector and home based workers;
- promote and support the development of social protection systems that shield women from adverse shocks in export and domestic markets, and strengthen other forms of social provision and risk management for women;
- promote women's participation in economic decision making, both nationally and internationally; including through support to national and international women's organizations;
- support research which will improve our understanding of the impact of globalization on women, and into improved mechanisms for monitoring its gender impacts.

Hence, I call for collective political action at different levels, supranational, national, local etc. Among others I would suggest that government should adopt gender-sensitive policies and programs of economic and social development at national and international level. Women should be given full and equal access to economic resources to credit and the right to own land and to inherit. Women should be given full and equal access to education and training. Countries should promote and develop the mean by which women communicate and share information through out the world, and within countries, in particular in impoverished countries. Only solidarity amongst women will ensure that globalization of the economy will promote social rights, conflict prevention and economic and social justice.

It is thus important for the women's movement to link up with other social movement to seriously incorporate women's concern. However, we must be able to present alternative to the present trends of commoditisation, individualism and materialism as well as the forces of conservatism if we, indeed, want to engage with globalization on equal terms and in the context of our own interests . According to Zeti (2000) [20], staying ahead and surviving involves pursuing strategies that aims to secure durability and sustainability over the longer term. Entrepreneurs and small business women that have caught a wave and prospered on a short term business trend without developing capabilities and competitive positions will risk the future of their businesses, as the wave subsides. For the women business - owners to remain resilient and competitive over the long term, it is important to understand the effect of the powerful force of these waves of change that are constantly shifting and reshaping the economic and financial landscape . This needs to be supported by efforts directed at continuous building the capacity and capability not only to deal with the emerging risks but more importantly, to become well placed to take advantage of the opportunities presented by the new environment. Hence, what is needed as women in business in the face of globalization are changed mindset and productive linkages. Women have to accept and do the following in reframing development policies to help women in business manage globalization and to address the need of women in some major areas such as: i) Access to Market ii) Access to Data iii) Access to Technology and Continuing Education iv) Access to Finance.

In conclusion all women need to accept that "no woman is an island." Women in micro, cottage and small industries need to join a cooperative, a supply chain. Together, they learn and reinforce values of hard work and fair business practices, Together, they look for anchors, source of technology, market or finance. Together, they gain access to shared data and technology.

Women need to advocate, we need to look beyond themselves and their businesses. They need to pro-act, lobby for the passage and/or implementation of women-friendly business laws, They should support Government and NGO initiatives that work for economic empowerment of women and who encourage the establishment of linkages. They have to support the moves for concretization, for transparency and accountability in public governance. Their businesses have to be women-friendly. Likewise, they have to be in the forefront in espousing fair trade practices and transparency and accountability even in private governance. Hence we need to be proud of who we are. We are Women! Born to be nurturers and caregivers. Born to be supportive of male heads of families, rehearsed in the art of compromise, but unbending in pushing for issues that threaten inner values we hold dear. Especially if we personally had a relatively easy climb up, we should never forget that half of the world's sky is being held up by women. If we look around, power is not shared equally by men and women, We should be women working for women.

I would like to take the opportunity to point out the many battles which the strong international women's movement has fought and won on behalf of women and society as a whole. However, these have been mainly around social issues. There is obviously now a need to turn our attention much more to organizing women around economic issues internationally. As episodes such as the Asian Crisis paint out, this increasingly is the new battlefield.

## Appendix

### ESTIMATED FIGURES ON THE POSITION OF MALAYSIAN WOMEN IN THE WORK FORCE AND BUSINESS OWNERSHIP FROM THE YEAR 1990-2020

	1 9 9 0	2 0 0 0	2 0 2 0
Total Population	18 Million	22.6 Million	33.7 Million
Woman (50%)	9 Million	11.3 Million	16.85 Million
The Production Population (15 - 64 years old)	10,4 Million (59.7%)	13.5 Million (59.9%)	20.0 Million (61.0%)
Women (50%)	5.2 Million	6.8 Million	10.0 Million
Population (15-44 years old)	8.3 Million (46%)	10.2 Million (59.9%)	14.5 Million (43%)
Women (50%)	4.2 Million	5.1 Million	7.3 Million
Working Women (percentage from the women population that is productive)	1.9 Million (36%)	2.6 Million (38%)	4.0 Million (40%)
Business Women (percentage from working women)	9-10% 190,000	15% 340,000	30% 1,2 Million

Source : Habrizah Hussin, 2002) [21]

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## The Role of NGOs in Globalization

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### Abstract

Globalization is increasingly becoming tangible in men's mind. People get familiar with its consequences through media, their interpersonal relations and the effects that their civil society has on them. Civil societies are gaining greater importance and control. This paper seeks to make sense of the impact of nonprofit, nongovernmental organizations on globalization. It has been argued that globalization processes have contributed to the rising numbers and influence of NGOs in many countries, and of course NGOs also made a great deal in converging the global trends. International NGOs and NGO alliances are emerging as increasingly influential players in international decision-making, so here some of the roles they can be expected to play are discussed with a brief look at their relations with governments and other national and international actors more from cultural point of view rather than economical.

### Introduction

The term "Globalization" which is appeared from about two decades ago now has been increasingly under discussion among the scholars in different fields of science. Its vast concept includes cultural and sociocultural studies, international trade and even FDI (foreign direct investment). Globalization, in fact, is a historical trend that came to existence since the down of Communication. Communication is the basic element for globalization and through which ideas can be shared and converged to each other and makes our world more homogenous. It is an invertible stream; you may reduce its pace but no one can fully terminate it as long as people are alive and have access to each other's way of living, thoughts and works.

We can define globalization as "a simultaneous and converging trend of different nations and societies through communication towards a certain situation that is constructed and shaped by all of them"; of course this is only one of the interpretations which can be considered for its concept. When it comes to economy, in the long run, that is the best hope for the developing countries in their quest for reduction of their distressing poverty. Though the short-run effects are undoubtedly more questionable, the experience of the affluent countries indicates that with the passage of time productivity growth does not merely trickle down. It is not only the developing countries that stand to gain. The booming economies can benefit from cheaper imports, which raise real incomes and can, in particular, benefit the remaining impoverished inhabitants of those nations. Thus, in the long run globalization may well offer benefits for all; particularly it will prevent unemployment, make those stagnant economies move and flourishes tourism industry namely in developing countries.

So globalization, as a process, is by now a historical fact which enriches the interactions of people in many different countries. Indubitably, every biased government or organizations that want to sticks to its own criteria can be considered as an obstacle for this trend. But the point is that globalization is not an intention phenomenon, in need of other's attention. It actually is like growing of a child among his school friends. Whether you like it or not, he will acquire some of his peers behavior and of course if he has something to say, the others will also take it. Now you may ask: If the parents persist to keep him away form his friends and control him in an isolated place what will happen? For sure, it does not go very far because life is bound to change and grow. Parents in the picture illustrated above are governments, the kid resembles NGOs and supranational organization and growing happen through increasing in the number of active NGOs.

NGOs and other third parties and private sector companies, free from usual restrictions and inefficiency which normally exists in the state-run organizations and with the power of their self-confident and self-motivated

peoples who run it, can act as a facilitator and make that communication between the different nations and societies much faster. They are more people-friendly institution and actually they themselves, are people.

Globalization has many facets and countries do not either accept or reject it in totality. There is considerable flexibility in embracing some aspects more fully than others or not embracing some aspects at all. But it is usually discussed in the field of economy or culture; these are also some of the main proven outcomes of this phenomenon:

- A link between different ideas that helps innovation, technology transfer.
- Giving a better understanding of different peoples from others.
- Facilitating flowing of technology and its application.
- Thriving the economy (if the essential potentials exist)
- Maintaining peace and preventing conflict between nations because of homogeneity that is replaced instead of heterogeneity.

## **NGOs and Civil Society**

According to Organizational Development theories a nation falls into of three main sectors, these sectors are the Government or public or state sector, the Business or Private or market sector, and the Voluntary or Civil society sector. These sectors are differentiated from each other though they are inter-related. The purpose of the government is usually to protect, regulate the lives of citizens and approve policies and laws. The main purpose of the business sector is to create and accumulate wealth, while f the Voluntary sector is to pursue individual and group interests or tackle problems or advocate for a certain cause. The motivation behind the actions of each of the sectors is also different. The Government is motivated by the need to govern; that is to see that things are running smoothly and there is respect of rule and law. The business sector is motivated by profit, and the voluntary sector is supposed to be motivated by the improvement of the quality of life among the people, personal and group values. There are some overlaps in these sectors since it is necessary for any organization to have some rules and regulations to guide its activities and it is also true that all the three deal with the same citizen although from different angles.

There are diverse definitions of the Civil Society. Sometimes the word is used to mean just Nongovernmental Organizations NGOs<sup>1</sup> while many times the word includes all Non State Actors such as Non governmental organizations (NGOs), Faith Based Organizations (FBOs) Trade Unions, Political Parties, and even Sports Clubs. Usually the Civil society mission is striving to achieve ideal situation where:

- Good governance is prevailing and the state is well managed.
- There is a fair competitive market economy driven by the consumer choice internationally, nationally and locally.
- The Civil Society is vibrant and strong in policy advocacy and can hold the state and the business sectors accountable to the citizens.
- Social Justice (Justice equality) and equity is guiding all service delivery and programs including the allocation of resources

Although NGOs themselves are part of civil society, these situations need NGOs efforts as well, so in most of the cases we see NGOs as an actor in both two sides (determinant and influenced). It is because of their natures that makes them act officially and organized along with the government while basically they are people oriented and have easy and flowing procedure among their own members.

The membership of civil society is quite diverse, ranging from individuals to religious and academic institutions to issue-focused groups such as not-for-profit or non-governmental organizations. In the realm of environmental governance, NGOs are the most prominent actors. NGOs involved in environmental governance are highly diverse, including local, national, regional, and international groups with various missions dedicated to environmental protection, sustainable development, poverty alleviation, and other issues. The diversity of civil society and its value to official intergovernmental processes on the environment are acknowledged in Agenda 21, the comprehensive sustainable development blueprint adopted at the 1992 Rio Earth Summit. The document does

not make use of the term civil society, although it expressly recognizes the members of civil society as a major constituency.

Historically, the UN has cooperated with NGOs primarily as partners in the implementation of certain programs, particularly in the areas of emergency response, human rights, and election monitoring in suspicion areas. Accordingly civil society has much more to offer to intergovernmental processes. Indeed, the very legitimacy of international decision making may depend on NGOs as a way to ensure connectedness to the publics around the world and substitute for true popular sovereignty, which international bodies, devoid of elected officials, lack. A number of UN projects and programs are already benefiting from the contributions of NGOs in areas as varied as information collection and dissemination, policy implementation, monitoring and assessment, norm-setting, and policy development. A revitalized global environmental governance system must facilitate both an expansion of these roles for NGOs and the development of better-defined processes of participation.

A number of difficulties still remain. Civil society participation requires a significant commitment of time as well as substantial financial resources from governments and intergovernmental bodies. Diversity within the global civil society community precludes the reaching of a consensus position that could be easily channeled into intergovernmental negotiations. It is imperative that NGOs explore innovative forms of networking through regional coalitions, for example, to help ensure the inclusion of a multitude of voices from developing countries and to make civil society involvement in governance more effective.

## National Functions of NGOs

The small size and limited financial resources of most NGOs make them unlikely challengers of economic and political systems sustained by the prevailing interests of big government and big business. Yet the environment, peace, human rights, consumer rights and women's movements provide convincing examples of the power of voluntary action to change society. This seemingly paradoxical entity can be explained by the fact that the power of voluntary action arises not from the size and resources of individual voluntary organizations, but from the ability of the voluntary sector to coalesce the actions of hundreds, thousands, or even millions of citizens through vast and constantly evolving networks that commonly lack identifiable structures, embrace many chaotic and conflicting tendencies, and yet act as if in concert to create new political and institutional realities. These networks are able to encircle, infiltrate, and even co-opt the resources of opposing bureaucracies. They reach across sectors to intellectuals, press, community organizations. Once organized, they can, through electronic communications, rapidly mobilize significant political forces on a global scale.

The academic literature has addressed NGOs as the citizen sector, NGOs as agents of accountability, NGOs as the magic development bullet and the expanding role of NGOs in global governance. Especially in developing countries, since people except from their traditional get-togethers usually among their tribes, regions or families do not have much of organized and structured group work experiences; it needs long run and powerful efforts to make the society move toward NGOs or organized team work. Lack of cultural and social infrastructure, and the absence or weakness of *sense of asking* about their natural and legal right from those who are responsible also adds to the difficulties.

To overcome these problems one of the possible solutions is to preparing a proper base for establishing NGOs. To do so we should first, link the upstream and downstream versions of laws and regulations affected by rulings of NGOs and supranational organizations, regardless of country of origin; and second, link the various entities involved in bringing about these legislative and regulatory changes in order to clarify their roles and relationships; Which it needs a global supporting to the nation's decision.

After establishing essential bases like legal and official permission and room for work, the job of entrepreneurs start. Beginning is usually in the areas which are more in trouble, felt and recognized by the people, like economical and developmental issues in their region, women's right or problems dealing with children. In general "Maslow hierarchy of needs" can be seen in them. In a state which has a lot of potentials for development like plenty of oil, land and labor; it is predictable to try to reach the minimum level of life standards in economical terms first, and then go for cultural matters or youth affairs. As an instance in Table 1<sup>2</sup>, in a developing country like

Iran, we see a comparison between NGOs according to their subject of study Ilam a poor province with very cheap labor force and totally 110 NGOs; While Tehran is a huge city about ten times bigger in terms of population, much richer and very much globalized in terms of economy and culture and totally 326 NGOs.

**Table 1**

<i>Field</i>	<i>Tehran</i>	<i>Ilam</i>
<b>Research</b>	<b>% 5.33</b>	<b>%0.92</b>
<b>Advanced &amp; Syndicatory</b>	<b>% 2.19</b>	<b>% 0</b>
<b>Advanced &amp; Scientific</b>	<b>% 16.61</b>	<b>%42.20</b>
<b>General</b>	<b>% 6.27</b>	<b>% 0</b>
<b>Youth</b>	<b>% 7.21</b>	<b>% 0</b>
<b>Donators</b>	<b>% 18.18</b>	<b>%11.93</b>
<b>Environmental</b>	<b>% 4.08</b>	<b>%15.60</b>
<b>Sociocultural</b>	<b>% 28.84</b>	<b>%14.68</b>
<b>Culture &amp; Art</b>	<b>% 11.29</b>	<b>%14.68</b>
<b>Total No of NGOs</b>	<b>326</b>	<b>110</b>

As you may notice, population and the number of NGOs do not match in these two mentioned cities. The reason is lied on the philosophy of NGOs, they are voice of people; where they can not get what they believe to have, they try to make themselves more powerful and cover the weaknesses in order to obtain them in an organize way. While Tehran has a lot of potentials in terms of national funds, private and governmental factories and other points of reliance the Tehrani residences do not go for establishing NGO at least they prefer to be member rather than runner, but people of Ilam are already more in trouble and have much lesser access to the resources and governmental funds, try putting more time for NGOs.

From the political consideration, NGOs are mostly under the supervision of the ministry of interior in each country. The role of NGOs in one nation in its nest scope is like supranational cooperations in global business world; they do their best within the existing rules and restrictions to get the maximum benefit for their stockholders and their homeland. NGOs also, at their best level act beyond the borders of provinces and states, they facilitate the flow of information for wishful scholars, gather charities where governments are not involved and give chance to ordinary people to have access to some of their needs. Less official and bureaucratic procedure, people-friendly atmosphere and closer relations with people and in some cases more reliable sources of information make the NGOs more functional than governments in many fields.

The main task of NGOs in a country is unifying the people for what they want and what they deserve for. The bigger the domain of their work, the more chance they have to reach their target. So if an NGO works internationally besides having lots of members inside of the country that makes it more powerful and effective, and enjoys the support of its domestic members it will be more power full and effective in transferring newly offered ideas.

Although in this era where you live can not be counted as the level that you can access to the information or influence others, still in developing countries the idea of being superior is quite common and deeply internalized among the people in the capitals because since the appearing of the civil societies capital men have been potentially problem solvers for other cities. Naturally they see far distance between themselves and the strictly structured, organized and always victorious outsiders. That sense of confidence is not something teachable at schools. Instead, it should be practiced, and internalized in each of their child perse through a serious and self-run plan, community or organization. This is how NGOs give their directors and members the great sense of self-believing and make them unified.

#### **What People Expect from NGOs?**

The Organization for Defending Victims of Violence (ODVV) is one of the most successful NGOs in Tehran, Iran. We saw it worthy to mention some information about it as a sample for an effective NGO; they have started their mission since 1988 and now they hold “Special Consultative Status to the ECOSOC” and are very active in the field

of human rights and humanitarian activities. The Organization is an associate NGO to the United Nations Department of Public Information (UNDPI), and cooperates, in various issues with the local and international NGOs. During the last eleven years, we have been, mainly informative in regards with human rights violations, and supportive in regards with the victims of violence. Like any other NGO they met a lot of difficulties but the need that is felt by the people can give enough intensity to keep going.

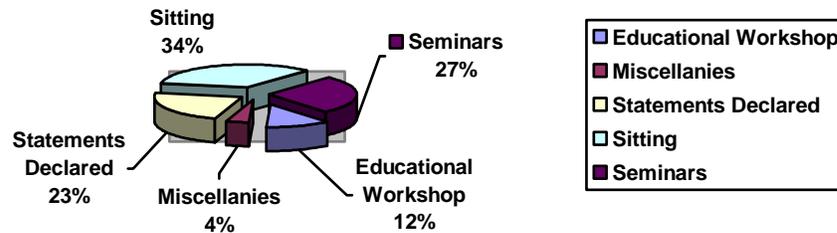


FIG. 1

Their objectives are "limiting and eliminating all kinds of violence", "promoting a nonviolent culture", and "defending and supporting the victims of violence"; But the Organization also pays attention to the research fields and conducts different project about the human rights, culture, civilizations, roots of violence, etc. They also publishes a monthly bulletin in Persian and English entitled Defenders' Newsletter which, in general, gives valuable information on the situation of human rights in Iran and the whole region<sup>3</sup>.

### Globalization, NGOs and Governments

Neither central nor local government has the financial capacity to provide the same level of public service provision as in the past [4]. This only can be achieved by rethinking the role of the state and its link to the market and institutions of civil society. Governments need to do more than raise more revenue, although this clearly would help. First, they need to re-think substantially their role in public service provision, eliminating the remaining subsidies and distortions left over from the centrally planned system. Government at all levels needs to complete the transition from being the sole provider of services to being a regulator and coordinator: 'steering' rather than 'rowing' the boat as the World Bank says. They should provide those services as the last resort in the cases for which there is no market or markets fail such as the life situation in shanty-towns or in the time of economical crises. Incentives are needed to encourage local governments to pay greater attention to social development. Local finances should be concentrated at the county level to allow better investment decisions to be made and redistributive mechanisms to be developed. Transparency of local government work should be increased further and the role of democratic, competitive elections should be expanded beyond the village level. This will allow better monitoring of local government performance and combat the diversion of resources that can be used for the public good. Reforms of government functions should be accompanied by an enhanced role for the market in areas such as housing and pension management and an expansion of the not-for-profit sector as service providers.

Beside them all, there has been always a fundamental tension between governmental departments and nongovernmental organizations. Governments prefer sovereignty (or at least operating control) over critical infrastructure, especially in visible and/or "strategic" industries [3]. This tension practically, is inevitable in any governmental department but particularly is by far more seen in the services. The main reasons are discussed in following.

Any governmental service is more like a community or a family which are defined by the bonds that hold its members together. Services become tradition - bounded and these traditions, along with the bonds of loyalty, can result in stagnation. As a result, almost any governmental department, agency or service acts as an agent for stability

and continuity with a tendency to block or at least slow down the changes. Organizations of this type are, by nature, inert. But Government is Government. Governments are alike all over the world. We can try to change the nature of government, but what will happen to the other things we need to do while we are trying. It may be more useful to try and change some of the distressing elements in society and environment that government itself wants to change, but -- with all its power -- cannot. According to Peter Drucker, however, the non-profit (or voluntary) organization exists to bring about a change - in individuals and in society.

In that illustrated situation NGO is a catalytic. It is a destabilizer. Its members normally consider it their duty to bring about change (sometimes even when it is not necessary or justified!). Naturally there will be tension between government organizations and non-governmental organizations. Bureaucracy by nature does battle with innovation. The stronger and more centralized a Bureaucracy, the more it seems to inhibit the change. Change, or innovation, is good however. Change is stimulating and creates a climate of creativity, excitement and enthusiasm. In forestry, for example there was very little change for quite some decades – activity revolved around plantation and exploitation. NGO movements perhaps helped to catalyze the progress towards involving people in forestry and also in giving protection to forests as habitats for a diversity of plants and animals. In my own office, I am afflicted with ‘occupational blindness’ - I can't see the dust under my own desk or understand that my employees are suffering. Someone from another office can see -- because he is objective and uninvolved. If he is sufficiently caring and courageous to point these things out to me, and if I have the desire or at least the willingness, to improve, improvement in my office can take place.

## **International Functions of NGOs**

The globalism process is going to transform the nature of communications in the traditional societies. While in most of the developing countries they have their own kind of media like: Friday Prayer, mosques and Husseiniehs<sup>4</sup> can all play a key role in resisting forceful global media. The new substructure of the communications on the minds of the countries of the north such as the United States and Western Europe has not taken into consideration the special characteristics of the countries of the south. These countries have become hopeless and disheartened by not being allowed to play in the global mass media games. It forces their NGOs to go for a solution and they find the easiest and the best one as compensation their short comings as much as possible and take highest possible advantage from what they have in terms of knowledge and facilities. They try to make connection with the resources in the society like some well known companies or international organizations and above all, to each other. Having a firm correlation between NGOs can assure their progressive trend and will make them updated and stronger against any common threats. Building a "NGOs network" is the best choice for this case. NGOs in developing countries may face some difficulties but the real problem is when an NGO does not believe in its power and important role. This is a very common problem in all 3<sup>rd</sup> world nations; therefore sitting between older and more funded NGOs with smaller and less formed ones. This is the way to a global NGO society in a nation.

In international view NGOs are a kind of moderators. From political point of view, we have the capital city of any country and other cites are more or less just followers. It is usually happens that every one quite traditionally are focused on some major cities and ignorant of some other rapidly growing areas. Where we think that for example the idea of 5 cites in our country are determining for national decision making, the actual reality is showing few growing areas of effectiveness in different regions. In economy it is more tangible; when we study of an international currency flow among different countries we find that it is not bounded to main governmental contracts. Informed observers estimate the global volume of foreign exchange transactions at \$US 1,300,000,000,000 or \$1.3 trillion each day [5]. The reserves of no government, not even the USA, can support an effective intervention in these transactions: at most, they allow any state to divert part of the flow of funds in a slightly different direction, and so can delay—but not prevent—exchange rate adjustments forced on the market by the realities of the economic situation. Correspondingly, a map of the locations where currency and exchange transactions occur yields a network that only partly fits the standard political map of nation states. Its nodes are located less in Washington DC and Bonn, than in New York, London, Frankfurt, Singapore or Tokyo; while an increasing fraction of the transactions takes place electronically, by communication channels that evade attempts by governments (even the People's

Republic of China) to monitor or block them. So, there is tension between actual business dealings and the wishes of governments for financial control, the same as what has been told for politics.

Even more ambitious, though, are the small number (to date) of NGO initiatives that are designed to drive the mutation of existing business models towards more sustainable variants, reshaping markets in the process. Examples here would be Greenpeace on renewable energy, the *Rocky Mountain Institute* (RMI) on the hyper car and the *Foundation on Economic Trends* on the hydrogen economy. The work of academics and consultants like C.K. Prahalad and Stuart Hart on 'bottom of the pyramid' strategies, or B24B (i.e. business-to-the-world's-4-billion poorest people, designed to meet their needs in innovative but still commercial ways), indicates fertile territory for future NGO initiatives.

#### **NGOs and Globalization in International Level**

Globalization forces at the national level can reduce state controls over the economy, increase pressure for democratic accountability, or raise questions about state sovereignty. These developments can create political space for civil society organizations as alternative sources of services once provided by the state, as watchdogs over and advocates for government policy formulation and implementation, as policy entrepreneurs or implementers with state partners, and as social innovators to guide improved services. When globalization expands political space, civil society actors may emerge to respond to the concerns of impoverished and marginalized groups that would remain voiceless under prior regimes.

It is not immediately obvious that political, cultural and economic facets of globalization will necessarily co-vary or reinforce one another. Globalization will not simultaneously highlight the importance of core cultural values, or open more political space for civil society initiatives, or create economic consequences that exacerbate poverty. Governments may open doors to international markets while trying to control the political implications of globalization, or vice versa. They may close their boundaries to cultural impacts as well. In general, however, the more open the country is to globalization, the more we would expect civil society organizations to become important actors in the country's development. This is a function of three factors[1]: (1) globalization has impacts on consciousness—both liberating and counter-revolutionary—that are likely to be expressed via civil society organizations; (2) globalization is likely to place enhanced emphasis on the political ideologies of individualism, freedom, and equal rights for which NGOs are both a product and an exemplar; and (3) globalization invites in international actors (INGOs, international agencies) that actively promote and strengthen the emergence of national civil societies.

#### **Channels for NGOs Participation in International Organizations:[2]**

1. NGO representatives can be included on a national delegation to an international conference to advise delegates from their government (Cairo Population Conference in 1994);
2. Representatives from a NGO can be included on a national delegation to an international conference to represent the NGO and conduct negotiations (International Labor Organization);
3. NGOs can send delegates to semi-public international conferences (IUCN has a membership that includes 699 NGOs as well as states and government agencies);
4. An international organization can set up an advisory group that includes experts from NGOs, who do not represent the NGO (UN Advisory Board on Disarmament Matters);
5. An international organization can give NGOs an opportunity to participate in ongoing policy development (Convention on International Trade in Endangered Species);
6. An international organization can enlist NGOs to help in implementing programs (UN High Commissioner for Refugees);
7. An international organization can give NGOs an opportunity to participate (not necessarily in a negotiating role) in an official conference to draft a treaty (ECOSOC);
8. An international organization can give NGOs an opportunity to participate in preparatory committees for an international conference (Rio Earth Summit in 1992, Johannesburg Summit on Sustainable Development in 2002);
9. An international organization can hold a special session to give NGOs an opportunity to make presentations (General Assembly on sub-Saharan Africa in 1986);
10. An international organization can include NGOs as members (International Commission for Scientific Exploration of the Mediterranean Sea).

## Conclusion

We have argued that civil society organizations are increasingly important actors in international arenas as well as in many nations. Their emergence in the last few decades is associated with and in part caused by the forces of globalization, which have contributed to the personal, economic, political and social dynamics that give rise to stronger civil societies. The rise of civil society organizations has been uneven across countries, though openness to globalization seems in general to be associated with growing strength and diversity of NGOs and other civil society organizations. The growth of international NGOs and NGO alliances has also been shaped by globalization, with impacts particularly visible for provides of services and disaster relief, policy analysis and advocacy, and social learning and problem-solving. At the international level NGOs and NGO alliances have identifies emerging problems, articulated new values and norms, created or reformed institutional arrangements, fostered innovations in international practice, and helped resolving conflicts and managing differences. These contributions to international governance in turn highlight problems of democratic and institutional accountability of international NGOs and NGO alliances, and the possibilities of multisectoral cooperations to solve complex problems of international governance.

A fundamentally important component of “civil society” is the local community. With the emergence of “global civil society” as a burgeoning idea, linked to more and more evidence of “global civic culture”, globalization is not just a description of world business or a tangle of political institutions. Globalization is a fact of life. And Nongovernmental organizations are already becoming more professional in their research and more effective in their advocacy—partly by recruiting bright young men and women who have been trained in universities and major “think tanks” to think about complex problems—and complicated power structures. The representation in international processes of nongovernmental organizations (NGOs) should be balanced between “North” and “South”. That means NGOs in developing countries should get more support to enable them to participate in international intergovernmental meetings.

Inclosing, NGOs convey globalization into societies so smoothly and peacefully that no other institution and no other method can do that because of up-ward spreading trend into a nation. It starts from the ordinary people in a society and grow with them to top levels of consideration of the authorities. They put their direct impact on their members. It is like spreading seeds on the members land. Since the land is prepared, the seeds will grow on double. This gradual changing happens through inter-personal or voluntary activities and will have permanent and functional effect. NGOs instinctively have this ability to simply do things that government must try very hard to achieve them.

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## Appendix

This Table contains all the information about the NGOs in IRAN and shows the rate of attention to different fields of works in various cities. (taken from the Ministry of Interior of Islamic Republic of Iran).

Ardebil	3.37	2.42	7.64	2.53	4.76	2.8	2.63	9.82	10.2	3.06	1.55	3.06
Esfahan	3.47	2.73	2.77	3.38	1.9	2.7	2.56	0	4.08	4.05	1.73	1.77
Ilam	5.08	7.07	0	6.09	7.86	1.8	10.53	13.53	2.06	6.09	1.49	1.71
Boushehr	7.7	1.4	1.05	4	0.95	1.66	0.85	2.56	2.07	5.05	0.95	1.24
Tehran	15.55	17.54	25.64	10.66	5.71	2.52	4.73	20.08	13.37	10.04	34.49	36.64
Chehar mahal va bakhtyari	4.01	5.23	2.98	7.77	2.86	3.22	3.63	0	6.16	7.07	1.81	1.8
Khorasan	10.05	11.64	3.16	3.48	14.16	25.47	3.56	8.26	2.06	5.72	4.26	4
Zanjan	2.71	2.43	5.46	3.48	2.86	2.7	4.56	0	2.06	2.03	0.5	1.67
Semnan	1.43	1.69	0	1.27	0	1.26	0.85	0	0	2.53	1.15	0.53
Sistan	1.38	0.81	7.42	0.87	1.8	0.9	1.75	0	8.16	1.68	1.08	0.43
Fars	5.07	6.48	4.31	5.43	12.29	7.57	6.56	2.56	2.07	2.53	10	9.7
Qazvin	3.53	1.97	0	4.22	0	2.7	2.56	8.26	6.13	6.9	3.23	2.41
Qom	1.42	1.77	3.16	0.62	0	0.72	0.85	6.69	4.08	2.19	0.69	0.22
Kordesta	3.15	3.61	2.45	1.69	9.52	5.22	4.86	0	2.07	2.01	1.95	2.79
Kerman	2.7	3.17	1.05	0.83	3.8	6.01	0	0	2.06	0.86	1.87	2.88
Kermanshah	2.43	2.51	4.41	4.22	1.9	1.98	3.62	7.69	2.07	2.19	7	1.96
Kohkilouye va boyerahmad	0.94	1.03	0	0.63	2.86	1.08	0.85	2.46	0	0.72	0.19	0.77
Golestan	2.98	2.14	7.42	6.49	0.95	1.8	9.7	2.4	2.07	2.69	2.63	4.2
Gilan	4.14	4.05	5.36	3.9	5.7	4.83	5.73	0	0	4.05	2.95	2.89
Lorestan	3.64	3.02	2.3	6.02	3.81	2.16	5.69	0	6.16	3.3	1.86	1.21
Markazi	1.55	1.69	0	2.53	4.76	1.8	0.85	0	2.07	1.85	0.68	0.95
Hormozgan	4.47	4.77	1.05	3.81	2.86	5.36	2.56	0	2.07	6.01	1.69	1.1
Hamedan	1.1	1.47	0	0.87	0	1.08	0.85	0	2.07	1.05	0.1	0.66
Yazd	2.7	3.17	3.16	3.38	0.95	3.6	6.84	5.13	0	1.06	2.96	1.26
Sum	100	100	100	100	100	100	100	100	100	100	100	100

Legend for First row numbers (NGO's field of activity):

1. Active NGOs
2. Registered NGOs
3. Internationally Active NGOs
4. Educational NGOs
5. Medical and health care
6. Defensive & Protection
7. Environmental (Green Earth)
8. Seminar & Conference
9. Scientific & Research
10. Cultural & Artistic
11. Men's share
12. Women's share

## End Notes

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<sup>1</sup> The definition of 'NGO' is not commonly agreed upon. One definition that closely reflects our understanding of the term is that NGOs are 'self-governing, private, not-for-profit organizations that are geared toward improving the quality of life of disadvantaged people' (Vakil AC (1997) 'Confronting the classification problem: a taxonomy of NGOs', World Development, Vol 25, No.12, p2060).

<sup>2</sup> All the informations in tables are directly drawn out from information stated by the "Ministry of Interior" of Islamic Republic of Iran.

(Issued by Mr.Nemati , the head of social and civil department)

For more detailed information please check [www.moi-gov.ir](http://www.moi-gov.ir) .

<sup>3</sup> Their web site for more detailed information is [www.odvv.org](http://www.odvv.org) .

<sup>4</sup> Religious places like mosques in which in certain times in the year or especial months Shiites come together and do their religious ceremony. It is usually followed by some preaches.

# Asian Clearing Union: A Perspective on its Reach, Relevance and Future in an Age of Multilateral Regional Cooperation

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## Abstract

Globalization has advanced the efforts of multilateral regional cooperation among countries in transition and also industrialized economies. Regional currency arrangements, payment unions and clearing unions are some of the strategies through which monetary cooperation may be achieved. This paper explores the reasons for the growth, longevity and success of the Asian Clearing Union while similar efforts in other regions have encountered problems threatening their continuance.

## Introduction

Emerging economies are engaged in group efforts to cope up with the wave of globalization. Many developed and developing economies are collectively adopting several steps of efforts of monetary integration. Economies in transition have understood the need for unifying some of their strengths through a sustained sequence of steps of liberalization, which involve economic and financial reform, privatization of the state owned enterprises and deregulation of their markets. Numerous instances of currency crises in the last twenty-five years, particularly the Asian Financial Crisis of 1997, have provoked central banks, international financial institutions and researchers pursue an interest in pegged and floating exchange rate regimes and regional coordination in monetary policy.

Following the crises in East Asia, Russia and Brazil, international financial system experienced issues related to transparency, governance, loss of asset values and steep devaluations. Increased participation of the private sector has been recognized as the utmost need for building stable financial architecture [Arista 2000]. Relaxation of exchange regulations as a part of liberalization efforts requires thorough financial supervision and control [Lii 2001]. The successful launching of the Euro as a common currency for the twelve nations and possible expansion of the currency into the newly admitted member nations of the European Union have raised the motivations for common currencies in other groups of countries. Certain other countries have also shown their willingness to replace their sovereign currencies with that of a foreign country. *Dollarization* has not provided the panacea that Ecuador envisioned primarily because of its lack of a stable banking system.

Problems emanating from exchange rate volatility brought countries to numerous multilateral arrangements including payments and clearing unions. Payment unions provide for credits and convertibility of currencies while clearing unions do not [Eichengreen 1993]. Currency convertibility is indeed an important condition for sustaining asset prices [Polak 1991]. All problems pertaining to cross border payments may altogether be resolved through the formation of an international clearing union. This concept has been debated by numerous economists along with the advantages and limitations of flexible versus fixed exchange rates [Gnos and Rochon 2004]. As risk management has attained better sophistication with the advent of technology, real time gross settlement (RTGS) systems are being implemented in many countries but in stages [Collins 2004].

This paper examines the success of the Asian Clearing Union that has survived a thirty-year period while similar arrangements worldwide have fallen short in numerous ways. The member nations of the Asian Clearing Union have recognized their divergence in culture, political stability, size, growth, education, infrastructure and technology and therefore have shown adequate restraint in their efforts of integration.

## **Lessons from Recent Currency Crises**

International diversification of financial assets is necessary to overcome exchange rate volatility [Fooladi and Rumsey 2002] and at the same time, banking systems have to be built on strong foundations of regulation to ensure supervision, examination and control [Mujica and Rocha 2003]. Asian financial crisis emphasized the need for financial cooperation and building sound financial institutions in many developing economies and particularly East Asia. Strategies involving regional financial cooperation ensure strong international financial architecture but do not necessarily lead to a monetary union [Kohsaka 2004]. Currency crises in Latin America prompted by large fiscal deficits in the last two decades unlike in the case of East Asian countries have laid the foundations for heavy private sector involvement [Takatoshi 2004]. Regional monetary integration helps synchronization of business cycles in the region and convergence of economic structures [Kim, Ryou and Takagi 2005]. The perils of non-performing assets in Japanese banking system may not lead to *yenization* by countries in Asia. The large fiscal deficit in the United States may result in a huge sell-off dollar denominated securities leading to fall in asset prices and subsequent rise in interest rates [Eatwell and Taylor 1999]. Increased national savings and export competitiveness are being suggested to improve current fiscal deficit in the United States.

## **The European Payments Union**

Multilateral trade and payment arrangements in the post war Europe helped creation of the European Payments Union (EPU) [Rees 1963]. Problems of distribution and enforcement were addressed by centralized and flexible institutional designs [Oatley 2001]. Increased exports and high investment contributed to Europe's economic growth [Eichengreen 1993 and 1994]. Later, this also led to the formation of European Economic Community. Nearly fifty years after the war, twelve countries in Europe have achieved something unprecedented in history through establishing a common currency the euro [Szegö 2003]. The EPU model is recommended suitable for the Commonwealth of Independent States by adopting the euro as the clearing currency [Shagaloy, Kivikari & Brunat 2001]. To warrant a payments or a clearing union, these countries in the former USSR will have to achieve macroeconomic stability [Eichengreen 1993 and 1996].

## **The Euro**

The success of the euro was pronounced when it replaced the US dollar as the preferred reserve currency in September 2003. There are several reasons for its broad acceptance. First, countries in the European Union have entrusted monetary policy to the European Central bank but their respective central banks continue to maintain all other obligations, particularly, domestic credit. Secondly, the euro has shown proper evaluation of credit risk in the borrowers and euro-denominated securities reflect risks pertaining to industrial sectors independent of individual country risks [Galati & Tsatsaronis 2003]. The United Kingdom and Sweden are members of the European Union but still maintain a 'wait and see' attitude with regards to adopting the euro [Miles 2004]. Among other member countries, the Danish krone, the Estonian kroon, the Lithuanian litas and the Slovenian tolar are linked to the euro, but the exchange rate is not fixed. Ten countries, namely, the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia and Slovenia have joined the European Union in 2004 and will seek formal adoption of the currency in the near future, provided they achieve stable exchange rates, converged long term interest rates, price stability and sound fiscal conditions.

## **Regional Currency Arrangements**

Countries in Asia have been initially slow in coordinating their efforts in formulations of monetary and fiscal policies [Ronall 1971] but the Asian Development Bank has provided them the necessary framework for enhanced regional cooperation. Recently, the ASEAN nations (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the

Philippines, Singapore, Thailand, and Vietnam) along with China, Japan and Korea have adopted a system of swap arrangements [Goad 2000]. These countries seem to have laid the necessary foundations for a common currency but they have not even started steps towards intensive monetary policy coordination. Therefore, the researchers' suggestions for higher levels of integration are not immediately likely. In addition to economic cooperation, developing countries require strong political will and an administrative commitment to remove exchange rate volatility through careful intervention [Hutchinson 2003].

Some forms of integration, much less sophisticated than monetary unions, mostly within regional and sub-regional organizations have led to consistent application of legislation related to banking operations, financial policies and procedures, and mutual consultation on monetary issues among certain African countries as in the cases of the Economic Community of West African States (ECOWAS). ECOWAS was created in 1975 among fifteen nations for trade promotion and economic integration. Mercosur (Mercado Común del Sur) is another similar cooperative effort in Latin America to reach convergence of exchange regimes but the member countries always resorted to settling payments in US dollars in the past. Bilateral payments are nowadays settled in each period thereby resulting in considerable cost reduction by eliminating commissions and transaction charges. The Latin American Integration Agreement (LAIA; in Spanish ALADI) seeks economic cooperation among its eleven members, namely, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. Established in 1980, LAIA promotes regional tariff preferences but with little success of a common market.

## **Clearing Unions**

Among the numerous forms of trade promotion, establishment of clearing unions was the most prominent. Seven such clearing unions were established among developing countries to promote regional monetary integration. Three of them were in Africa (West African Clearing House, Clearing House of the Economic Community of Central African States and Preferential Trade Area of Eastern and Southern Africa Clearing House - PTACH), and three were in Latin America (Central American Clearing House - CACH, LAIA Payments and Reciprocal Credit System and Caribbean Multilateral Clearing Facility - CMCF) one in Asia (Asian Clearing Union). The PTA Clearing House introduced travelers' checks in PTA monetary units in 1988 with plans to cover all payment transactions in PTA monetary unit but the proposals did not materialize. Trade promotion through tariff preferences and establishment of PTA Clearing House in 1984 was conceived but only with very little accomplishments [Jenkins 2001] as intra-regional trade was as low as four percent of the total trade. The operations of the CMCF had to be abandoned in 1983 due to defaults on payments and unsettled balances. The CACH abandoned in 1984 was resuscitated in 1990 as the Central American Payments System to settle intraregional debts but due to liberalization of exchange rate regimes, the operations have dwindled within the system.

## **Asian Clearing Union**

Asian Clearing union (ACU) was established in 1974 and began its operations in November 1975 with six member countries (Bangladesh, India, Iran, Nepal, Pakistan and Sri Lanka). Myanmar subsequently joined the ACU in 1977 and Bhutan much later in 1999. The objectives of the ACU are multilateral settlement of current account payments, conservation of foreign exchange, promotion of monetary cooperation among central banks, increasing relationships among the banking systems of member countries and providing currency swaps arrangements. At present, the headquarters of ACU is in Teheran, Iran.

ACU was formed at a time when countries in the Indian subcontinent were facing acute shortage of foreign exchange and were therefore compelled to adhere to stringent exchange controls. The union provided member countries multiple advantages including short term credit during the billing cycle, reduction of transaction charges and above all economizing the use of their foreign exchange. Lower transaction costs benefited traders and banks as well. In the process of participation in the union, governments, monetary authorities and central banks have achieved

purposeful working relationships. Table 1 gives us a snapshot of the economies of member countries in the ACU. India has outperformed all other members in each measure and thus has emerged as the leader of the group.

TABLE 1 SIZE AND ECONOMIC POTENTIAL OF ACU MEMBERS

Country	Bangladesh	Bhutan	India	Iran	Myanmar	Nepal	Pakistan	Sri Lanka
Population (millions)	144	2	1050	68	49	25	150	19
GDP (\$ millions)	46,885	446	472,341	25,169	333	5,496	62,391	16,360
Per Capita GDP	326	204	450	370	7	223	416	865
Exchange Rate per dollar	57.89	48.61	48.61	2200.00	6.57	77.88	59.72	95.66
Deposit Rate (%)	8.17	8	6.25		9.5	4.75	5.53	11.01
Lending Rate (%)	16	16	11.92		15	7.67		19.39
Exports (\$ millions)	4,566	116	49,327	28,345	3,046	568	9,913	4,699
Imports (\$ millions)	7,914	182	56,453	15,207	2,348	1,419	11,233	6,105
Inflation (%)	6.8	2.5	4.4	9	57.1	2.8	3.3	9.6
Balance of Payments (\$ millions)	-144		6,087	1,083	178	-300	2,197	329

Source: International Financial Statistics, Yearbook 2003

Table 2 presents the total foreign direct investment stock in ACU member countries. We are able to assess the potential of these countries to engage in increased international trade, enhance competitiveness through competition in their markets and join the wave of worldwide liberalization efforts.

TABLE 2 FOREIGN DIRECT INVESTMENT STOCK (2003)

Country	FDI Stock	
	Inward	Outward
Bangladesh	2,695	62
Bhutan	4	0
India	30,827	5,054
Iran	2,925	6,804
Myanmar	4,376	0
Nepal	148	0
Pakistan	7,764	635
Sri Lanka	2,897	102

Source: UNCTAD, World Investment report, 2004

At the time of commencement of operations, the ACU adopted the Asian Monetary Unit (AMU) as its accounting unit. It was defined to be equal to one US dollar. With creditable success over two decades, the union switched its accounting unit to the US dollar in 1996. Traders in the union are now permitted not only to invoice their documents in US dollars and also to effect transactions in dollars. Commercial banks in member countries use their nostro accounts to facilitate receipts and payments. Central banks monitor the funding and absorption of excess liquidity from these accounts. This has provided a complete convertibility to the current accounts of member countries.

Financial market liberalization has resulted in relaxation of exchange control regulations and international

foreign exchange markets have benefited by advanced technology in communication through satellites. The switchover to the dollar thus has enabled member countries to apply rates in a real-time and enhance the operations of ACU mechanism.

## Evaluation of ACU's Performance

The primary reason for the success and longevity of ACU is the prompt payments of all balances by the member countries without delay or default. When payments are not disputed for their timeliness, any relationship is guaranteed to be long standing.

TABLE 3 SWAP FACILITY ENTITLEMENTS, 2001

Country	Swap Facility Entitlement (\$ millions)
Bangladesh	228.7
Bhutan	0
India	138.6
Iran	42.9
Myanmar	0
Nepal	2.5
Pakistan	42.1
Sri Lanka	133.8

Source: Asian Clearing Union, Annual Report 2001

Table 3 shows the entitlements available to member countries in 2001. Bangladesh availed \$150 million with \$135 million paid by India. Nepal, Pakistan and Sri Lanka provided \$15 million collectively. Pakistan also availed \$42.1 million from Bangladesh, India, Iran and Sri Lanka for \$4.6, \$16.0, \$16.4 and \$51 million respectively. The volume of intraregional trade stood at \$50 million in 1975 and has currently reached near \$7 billion. The size of intraregional trade is shown in Table 4.

TABLE 4 VOLUME OF INTRAREGIONAL TRADE IN ACU (2004) IN \$ MILLIONS

Country	Debits	Credits
Bangladesh	1,773	104
Bhutan	0.02	8
India	2,415	3,328
Iran	335	2,929
Myanmar	0.02	2
Nepal	11	5
Pakistan	650	216
Sri Lanka	1,495	87
Total	<b>6,679</b>	<b>6,679</b>

Source: Asian Clearing Union, December 2004 Monthly Report

The member countries have recorded an average growth of 4 percent in 2004. The ACU primarily now covers the Indian subcontinent and naturally. India has emerged as the leader of the group. India is the only country that has cherished and valued its principles of democracy. Even when the administrations change thanks to an effective and periodical electoral process, India has shown the political will to adopt modernity in risk management strategies in its banking institutions, recognize and provide for non-performing assets, and invoke carefully planned steps in financial liberalization, in proper sequence. In fulfilling its role as the leader in the group, India has rapidly improved its communication technology by implementing BANKNET (comparable to SWIFT) in inter-bank and intra-bank communications. Its bilateral trade with China currently exceeds \$14 billion. Other members are the beneficiaries of India's leadership in monetary integration and multilateral cooperation.

## Conclusion

Even with a common currency, the absence of exchange rate flexibility is likely to cause adjustment problems in the context of differential growth among countries [Beachill and Pugh 1998]. Also, presence of parallel economy undermines the benefits of a common currency [Schneider 2000]. Besides monetary cooperation, authorities in different countries need to adhere to harmonized standards to encounter black market for foreign currencies and issues of money laundering [Judith 2002].

Formation of several groups of trade promotion and economic cooperation has been very intensive in the last decade in Asia. So, the future of ACU may include expansion of its membership among other countries in Asia, particularly, in the Far East and also those countries in the ASEAN and APEC. India anticipates Maldives, Thailand, China, Malaysia, Tajikistan and Uzbekistan to join the ACU. The technical team of the ESCAP is presently providing assistance to the ACU in strengthening its future role and performance. The team has found administrative procedures hampering the progress of ACU. If the volume of trade among its members increases, other countries may perceive the potential benefits of membership in the ACU. In future, the ACU may also pave way for a central clearing house in the short term and adopt more currencies for mutual settlement in the long term.

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# **The Digital Divide: The Complexity of the Inequality Dimension in a Global and Local Perspective**

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## **Abstract**

At the same time that information and communication technologies (ICTs) are gradually becoming a central infrastructure tying together our society, the spatial cleavage between Internet-haves and have-nots (those without access or unable to use it effectively) is becoming an unexpected source of inequality, promoting new dimensions of social and economic exclusion for many people and firms around the world. The present paper, aims to develop a deeper conceptual understanding of the disparity between information-rich and information-poor, based on the conviction that the spatial boundaries of this digital inequality are much more complex than simplistic distinctions between north/south, central/peripheral or urban/rural. Based on several statistics and cartographic analysis, we intend to demystify the bipolar societal split that supports the “digital divide” concept, showing that disparities and have-nots exist also in developed countries and even inside its most urbanized areas. Such conclusion needs a special meditation, especially in a new era where development without the Internet would be the equivalent of industrialization without electricity in the industrial era.

## **Introduction**

As the diffusion of ICTs has taken place and consequently its potential to foster economic growth and human development, the issue of the digital divide has emerged to represent the major threat to harness the opportunities offered by ICTs (Cuervo and Menéndez, 2004). However, it has been a little reducer to use the digital divide concept as a way to simply treat the causes and effects of the uneven geographical distribution between ‘Internet haves’ and ‘Internet have-nots’. Besides the availability of the infrastructure (the physical access to computers and connectivity) it should also be considered the skills required to use these technical resources (language, education or literacy), in other words the digital divide should be seen as a complex problem involving both technical access and social access (Kling, 1998).

In some recent works, digital divide is used as a concept that refers to the gap between those who can effectively benefit from ICTs and those who cannot. In this sense, Crampton (2003) defines the digital divide as the unequal access to knowledge in the information society. In his view, this term not only includes the access to technology, but also the competence to use these technological tools (particularly computers and Internet) as well as the ability for a meaningful use of the accessed information. This means that ICT does not exist as a single overriding factor for determining such a divide.

According to Warschauer (2003, p. 6) “a second problem with the digital divide concept is its implications of a bipolar societal split”. There is not a binary division between those who can and cannot benefit from ICTs but a rather gradation based on different degrees of access and use of information technology. For example, African Americans are often presented as being on the wrong side of the digital divide; despite the divisions between blacks and whites in Internet access decreases as income increases. As a consequence, nowadays it is more and more clear that this is a complex and multidimensional concept, involving not only a geographical dimension (the gap between countries, or the international digital divide) but it also refers to the gap between individuals, households and businesses, according to their different capacities to use the Internet for a wide variety of activities and for meaningful ends (the gap within countries, or the domestic digital divide).

Concerning the international digital divide, Borbora (2004) underline the results of some researches showing that countries with lower income and lower education attainment tend to show lower rates of ICT access and use. Regarding domestic digital divide there is a clear “risk of digital exclusion by women, the elder, those with lower income and education attainment, with disabilities, living in rural areas, belonging to race or ethnical

minorities” (Borbora, 2004, p.4). Like Crampton pointed out (2003, p. 144) “access to cyberspace is geographically very uneven, and that it varies widely between class, race, and income”.

Under this perspective it is too simplistic to analyse the geographical digital divide considering only real disparities that exist in access to and use of ICTs between countries, in our point of view the relationship between knowledge and space is uneven across multiple scales: globally, regionally and locally. If it is true that “all countries are increasing their access to and use of ICT, but ‘information have’ countries are increasing their access and use in an exponential rate that tell us that the divide between countries are growing” (Borbora, 2004, p.5), a deep analysis shows that nowadays the access to computers and the Internet is not equally available across cities even if they are located in developed countries; the quality of this access (being a widening or narrowing access) is not always equal and consequently the potentialities are not comparable; and inside the poorest countries we can find areas with high income presenting a better connectivity to the global information flows.

Within this context we believe that before the suitable actions for bridging those gaps can be decided, it is necessary to know more about the magnitude of the digital disparities, particularly of the main components that support and explain the complexity of the digital divide as a multidimensional phenomena. With this goal the conclusions of this study will be supported by empirical research, conducted in order to highlight significant variations at a global, macro-regional and urban levels, not only concerning the physical presence of computers and connectivity to the internet, but also the accessibility to other resources (as money or education) that allow people, private institutions and businesses to use ICTs for meaningful ends, for instance, stimulating local business environments by the attraction of global flows of investment, trade and resources.

The global distinctions will be possible by exploring the database provided by the International Telecommunication Union, in order to present update world maps showing the recent evolution provided by proactive initiatives, which have been developed in order to introduce and extend the use of the Internet in developing countries. At a macro-regional level we will explore the diffusion process of ICTs throughout Europe, as a good example to emphasize the attraction of the information networks by existing urban structures, supporting given centralities and enhancing traditional spatial disparities. However, this urban agglomeration tendency clearly masks significant variations that should be exposed, and that is what we will try to underline with an intra-urban investigation conducted within the city of Porto (located in the north of Portugal), with a special emphasis to the differential access to high-speed broadband service.

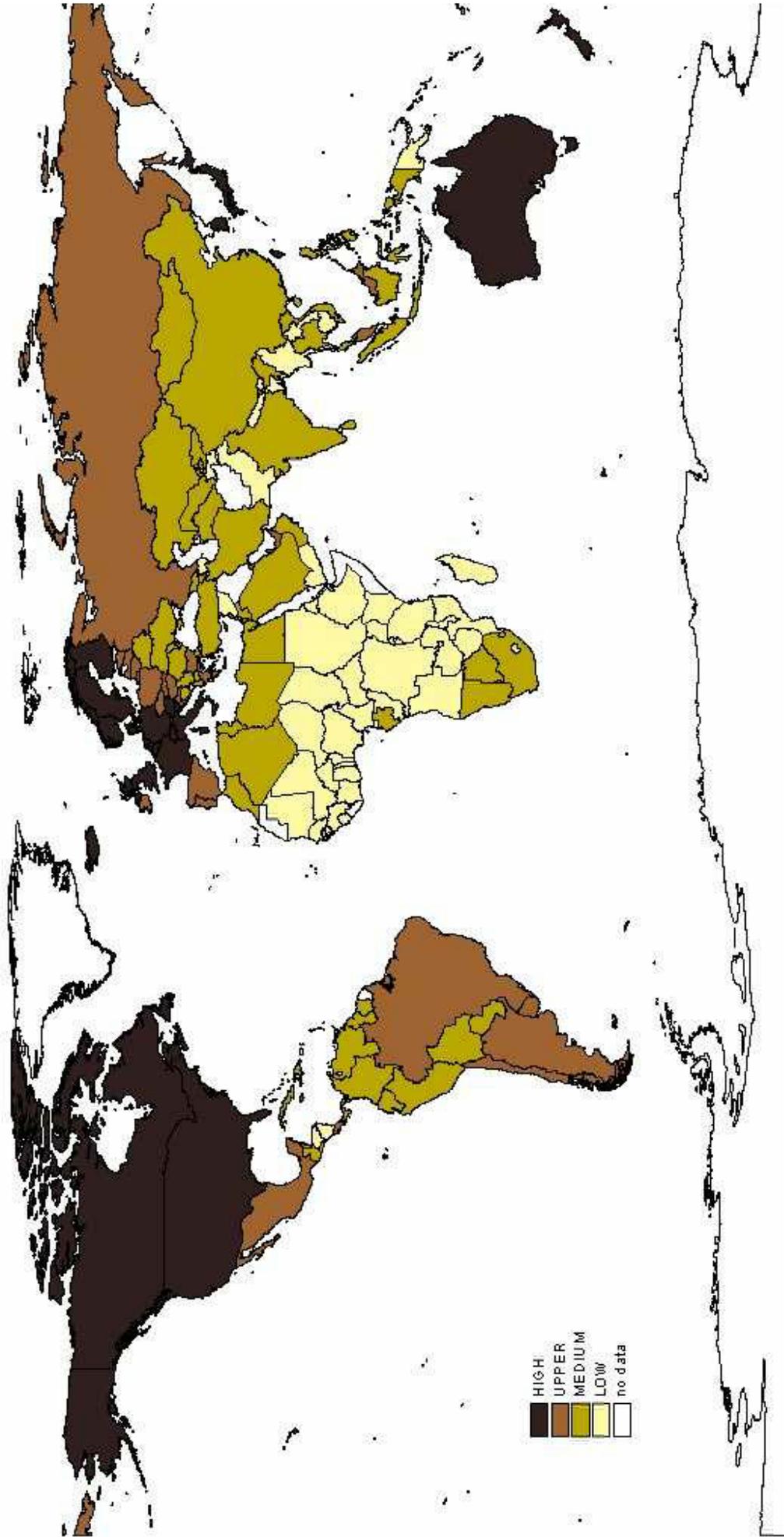
## **The Digital Divide at a Global Scale**

In order to analyse the positive impact of ICTs in terms of productivity and economic growth we can consider two different approaches. On the one hand, the direct impact for the development process of a country, involving IT related export of goods and services and their effect on employment and income (ICT-growth). On the other hand, the indirect impact resulting from the use of information technologies to increase efficiency and productivity of the domestic real sectors (ICT-diffusion).

In this section we will only analyse the ICT-diffusion as a tool for economic development and human welfare, concluding that its positive impact are mostly visible in developed countries while developing countries are yet to reap such benefits fully. Diffusion and use of the Internet is proceeding unevenly throughout the planet, and it is clear that IT induced growth is acting as a force that reinforce existing and pronounced social and economic imbalances that already exist between developed and developing countries.

In order to measure the digital divide as a multidimensional phenomena, a selection of indicators compiled into an index gives a better overview than any single indicator. Under this perspective there are several methodological approaches based on a broader spectrum of indicators than just Internet penetration rates. Among other composite indicators, Cuervo and Menéndez (2004) highlighted the Information Society Index by IDC/World Times; the New Economy Index by the Progressive Policy Institute; the Technology Achievement Index by UNDP; the Infostate Index by Orbicom, and the Networked Readiness Index by the World Economic Forum.

Figure 1. ITU Digital Access Index, 2003



Source: data collected from ITU (International Telecommunication Union), 2003

In this study we will focus exclusively on the Digital Access Index presented in 2003 by the International Telecommunication, and covering a total of 178 economies, in order to measure the overall ability of citizens to access and use ICTs (Figure 1 and 2). This index is based on eight variables<sup>1</sup>, covering five different areas (Table1), allowing countries to find their relative strengths and weaknesses by each considered dimensions of the digital divide.

TABLE 1: CATEGORIES AND INDICATORS MAKING UP THE DIGITAL ACCESS INDEX

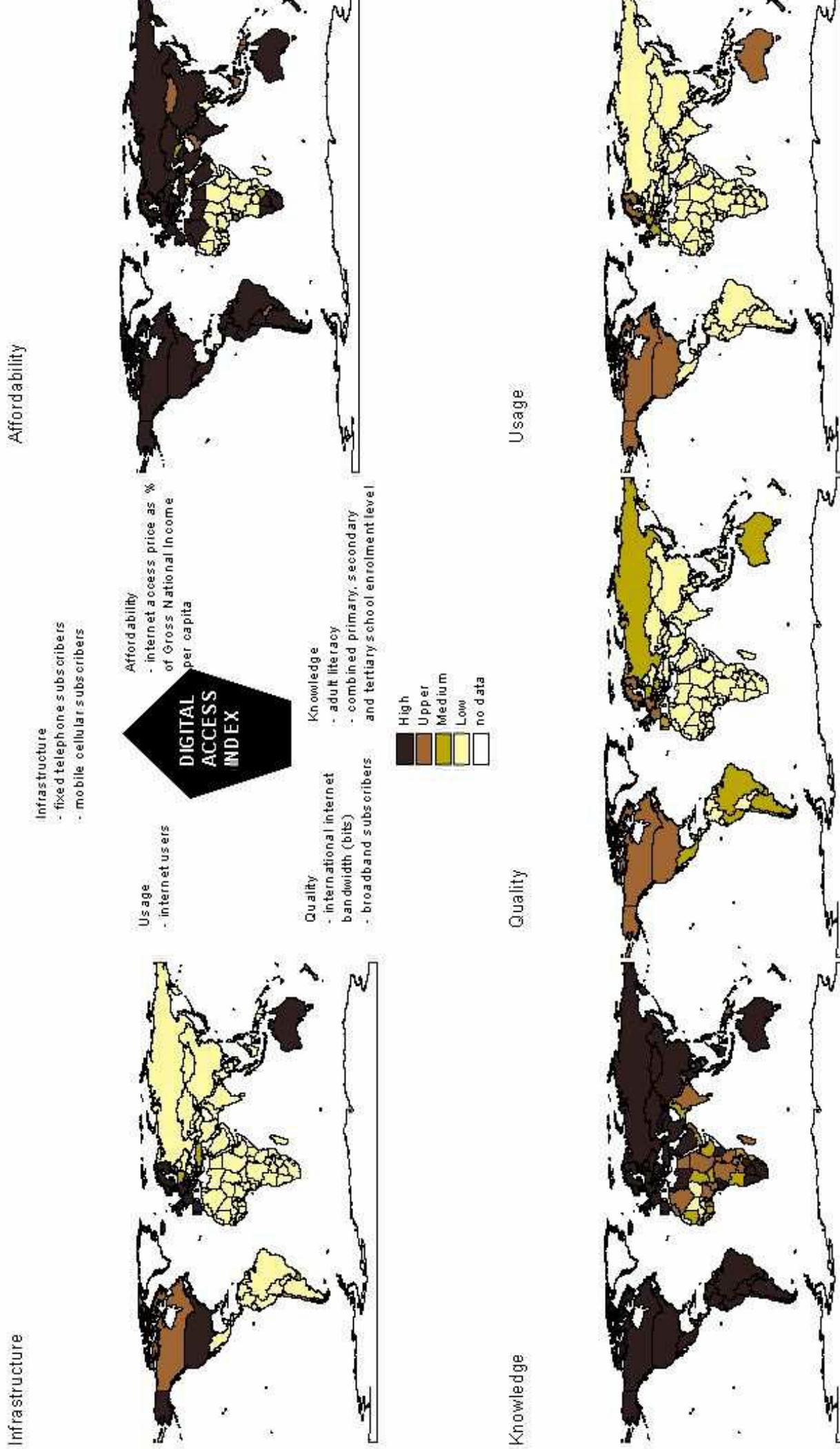
Availability of infrastructure - Fixed telephone subscribers - Mobile cellular subscribers	The infrastructure category contains variables related with the networks that provide the means for voice, text and data communications (including dial-up Internet access and broadband access by DSL technology). Both variables (fixed telephone subscribers and mobile cellular subscribers) are given equal weight in the infrastructure category.
Affordability of access - Internet access price as % of Gross National Income per capita	Affordability was defined as the price of Internet access as a percent of per capita income, assuming a usage factor of one hour per working day (20 hours per month: 10 peak hours and 10 off-peak hours). This is a relevant factor to determine the digital divide since the Internet must be affordable if it is to be used by the greatest number of people.
Educational level - Adult literacy - Combined primary, secondary and tertiary school enrolment level	Knowledge was defined as a factor to determine the digital divide as a result of its significant impact on the ability to use ICTs. The variables considered were adult literacy weighting two-thirds (% of people aged 15 and above who can, with understanding, both read and write a short, simple statement related to their everyday life) and school enrolment weighting one third (number of students in primary, secondary and tertiary school divided by the population of that school age).
Quality of ICT services - International Internet bandwidth (bits) per capita - Broadband subscribers	The quality factor is justified because with a slow speed of access, either people will not use ICTs, or they will not be able to use them effectively and creatively. It were considered two variables with equal weight in the category, on the one hand the amount of international Internet bandwidth per capita (measured in Mbits/s), on the other hand the number of broadband subscribers per 100 inhabitants.
Internet usage - Internet users	The number of Internet users is important to estimate the extent of a country's ICT utilization. This variable also incorporate aspects of access not easily captured by other categories, for instance the presence of Internet cafés or public locations with free access Internet, would be reflected in the number of users.

Based in ITU, 2003-c

The analysis of the economies included in the high access category reveal some surprises, namely the absence of United States in the top ten economies, or the presence of the Republic of Korea in the fourth position, which is not usual in international rankings but in this issue is not really a surprise as a consequence of the strong government commitment to ICTs. South Korea was the first nation to launch third-generation mobile, and it is the world leader in broadband penetration, with 21 broadband subscriptions per 100 inhabitants at year-end 2002 (ITU, 2003-d).

Apart from Canada, ranked 10<sup>th</sup>, the top ten economies are exclusively from northern Europe (Sweden, Denmark, Iceland, Norway, the Neetherlands and Finland) or from Asia (Republic of Korea, Hong Kong (China) and Taiwan (China). These results “suggest that English is no longer a decisive factor in quick technology adoption, especially as more content is made available in other languages” (ITU, 2003-b, p.6). Nowadays Chinese, Korean and Japanese make up 11% of Internet content, a higher figure than either French or Spanish.

Figure 2. Indicators making up the ITU Digital Access Index, 2003



All the economies in this higher category belong to the developed regions of Western Europe, North America, East Asia and the Pacific. The single exception is Slovenia, in the Central Europe, where in consequence of some government-sponsored initiatives the Internet growth has been rapid, as well as mobile phone subscribers, and where literacy and school enrolment levels are close to the averages of the European Union.

In the second level (upper-access) there are 40 economies, the most part from Central and Eastern Europe, the Caribbean, Gulf States and emerging Latin American nations. These countries are characterized by the imbalanced in a specific category from the five areas considered, particularly infrastructure, quality of access or usage. Many of these countries intend to graduate to a higher level of digital readiness with ambitious government projects or by following a market liberalisation strategy for the telecommunication sector.

The middle-access category is the most represented with 58 economies, especially from Latin American and South East Asian, including also some countries from North Africa and Middle East. These countries are weak in access to the information society, particularly in what concerns to a shortage of infrastructure. Despite this drawback some countries have developed strategies resulting on a high level of Internet access, is for instance the case of Peru based on the widespread availability of Internet cafés, or Egypt with an almost free Internet access by dial-up connection, or Tunisia that is trying to increase the number of Internet users by the expansion of a network of public access facilities.

In the lower category we find the poorest and least developed countries, facing several other deprivation besides the digital access. The main problems are related with low levels of communications infrastructures but above all high access prices. "In most of these nations, an hour a day of Internet access exceeds the average daily income. There is little hope of them joining the information society unless prices are dramatically reduced" (ITU, 2003-d, p. 17).

## **The Digital Divide in Europe**

In spite of being on the right side of the global digital divide, a deeper analysis shows that at the same time the changes driven by ICTs have swept across the world and through nations they have begun to reshape differently the economies. This is in part a result of their different ability to have access to and exploit new possibilities offered by ICTs, namely: increasing the locational choice of firms; promoting more flexible ways of working, or new solutions to problems of access to services (Milicevic and Gareis, 2003).

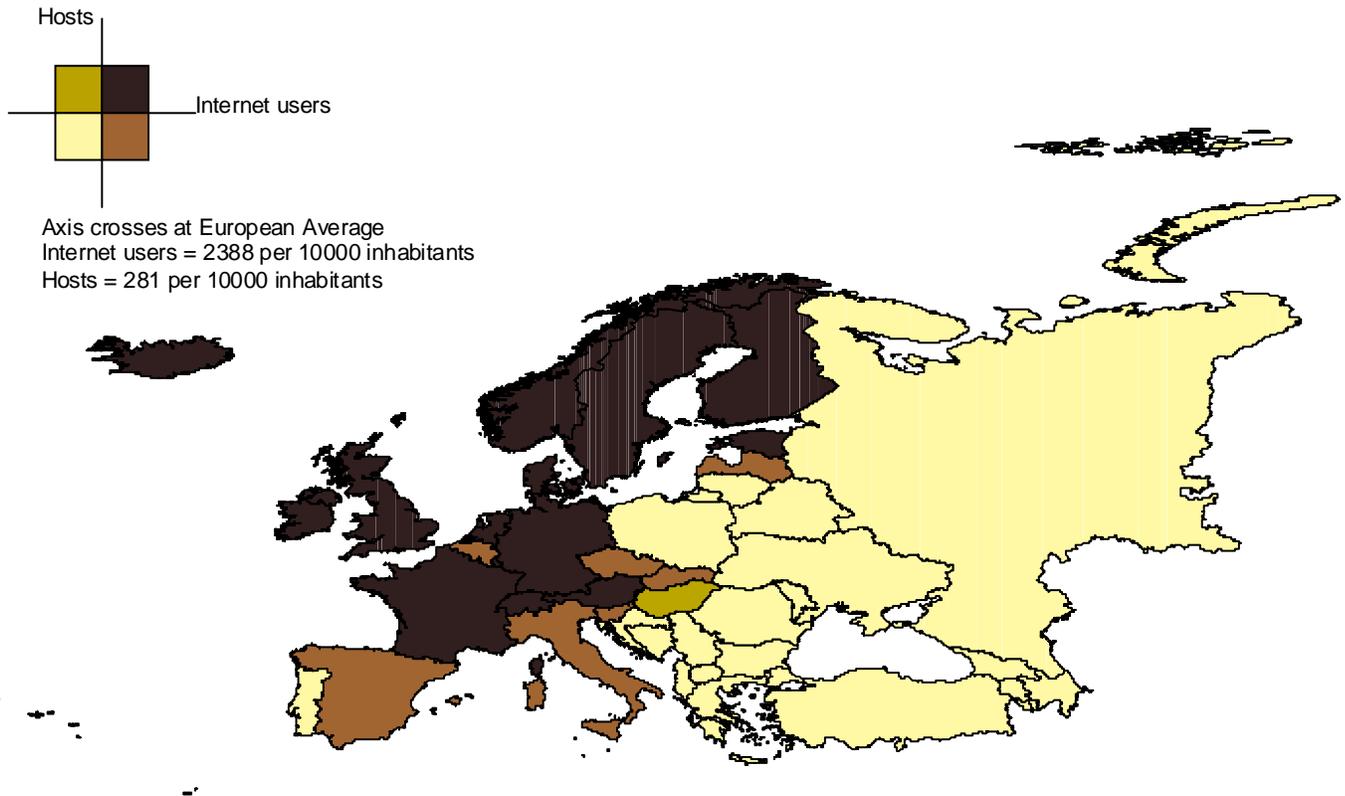
In Millard's opinion (2003, p.2) "despite the apparent potential for economic decentralisation riding on the back of ICT adoption, most empirical research is pointing strongly the other way". Within Europe there is clearly unequal access between countries to the technologies that underlay the Information Society, this variation is expected to have different effects on the prosperity of their economies. Indeed, the general picture about the actual state of the European countries in relation to ICTs access and usage shows that those that are already more advanced are also better positioned to gain any additional advantages associated with the advent of the Information Society.

The main purpose of this section is to identify patterns of Internet diffusion among European countries, crossing recent data about Internet access and usage. Host computers is the most commonly used indicator to measure the stock of communication equipment needed for accessing the Internet, it is considered as a "useful infrastructure indicator of the number of computers in a nation that are connected to the Internet" (Minges, 2000, p. 2), however it must be complemented with other indicator measuring the internet usage by population (the number of internet users per 100 inhabitants).

The results obtained by crossing both indicators reflect the asymmetric in the development of the information society within Europe (Figure 3). To sum up we may regroup these countries into three main categories in terms of their digital development (Figure 4 and Table 2).

In the northern part of the European Union we find those countries with a higher digital development in terms of ICT infrastructure and also in terms of Internet usage. Iceland leads the group both in terms of access and usage, we may highlight that more than two thirds of their inhabitants are regular Internet users. Estonia is also present in this category, in spite of being a new member of the European Union it is best positioned in both indicators than countries from the south of Europe, as Spain, Portugal or Greece. In the last position but also above

Figure 3. Spatial distribution of Internet Infrastructure and Usage in Europe, 2003



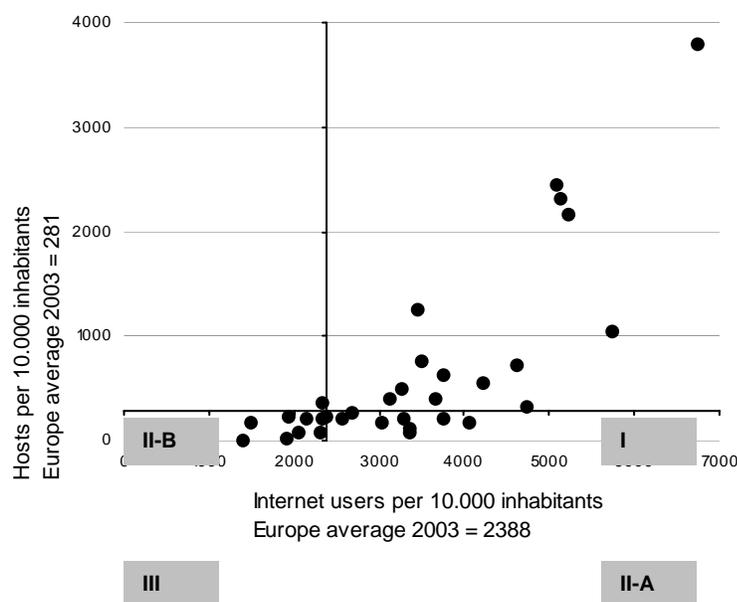
Source: data collected from International Telecommunication Union, 2004 [<http://www.itu.int>]

the averages we find Ireland where the ICT sector has become the engine of a productivity growth rate higher than the majority of European countries.

An intermediate group, composed by nine countries concentrated in the central and southern part of Europe, present a higher number of Internet users in relation to the European average but below the average in what concerns ICTs infrastructure measured by the number of hosts.

Mostly from the central and eastern part of Europe, including some of the more recent EU member states, we find those countries with lower levels of ICT development (both in terms of ICT infrastructure and usage). From this category eleven countries present less than a tenth of their population as regular users of the Internet, and by a simple extension their residents are less likely to have experienced ICT enabled changes to their everyday working life. These figures emphasize the message that many people from traditionally European less advanced regions still lack basic opportunities to participate in the Information Society. In this category we find also countries as Portugal and Greece, considered as the poorest countries of the European Union before the recent enlargement.

European Average: hosts = 281 per 10.000 inhabitants; Internet users = 2388 per 10.000 inhabitants



Country	Hosts per 10.000 inhabitants	Internet users per 10.000 inhabitants	Country	Hosts per 10.000 inhabitants	Internet users per 10.000 inhabitants	Country	Hosts per 10.000 inhabitants	Internet users per 10.000 inhabitants
<b>I</b> > 281 > 2388			<b>II - A</b> < 281 > 2388			<b>III</b> < 281 < 2388		
Iceland	3789,65	6747,4	Latvia	178,84	4056,87	Poland	203,82	2324,5
Sweden	1050,72	5730,74	Slovenia	214,76	3757,52	Croatia	67,77	2318,24
Netherlands	2162,66	5219,46	Cyprus	77,91	3371,09	Lithuania	203,79	2136,01
Denmark	2314,45	5128,15	Italy	114,02	3366,6	Bulgaria	66,57	2058,38
Finland	2436,55	5089,3	Belgium	202,62	3283,17	Portugal	219,63	1935,07
Germany	315,48	4726,7	Malta	177,93	3030,3	Romania	22,59	1905,27
Austria	713,37	4620,34	Czech Republic	274,41	2682,67	Greece	170,46	1499,93
United Kingdom	545,33	4230,98	Slovak Republic	212,18	2558,69	Belarus	5,03	1409,78
Luxembourg	624,89	3765,23	Spain	222,44	2391,08	Turkey	52,6	805,46
France	401,24	3656,08	<b>II - B</b> > 281 < 2388			Serbia and Montenegro	18,43	787,17
Switzerland	748,93	3510,38	Hungary	357,76	2322,39	Moldova	27,17	653,06
Norway	1245,93	3456,53				Armenia	5,47	526,29
Estonia	498,86	3276,75				Macedonia	17,25	484,5
Ireland	394,58	3130,2				Russia	42,19	409,32
						Azerbaijan	0,69	368,51
						Georgia	10,07	307,6
						Bosnia	18,87	262,12
						Ukraine	18,28	179,51
						Albania	0,81	97,63

Source: data collected from International Telecommunication Union, 2004 [http://www.itu.int]  
 FIG. 4. EUROPEAN COUNTRIES ACCORDING TO INTERNET INFRASTRUCTURE (HOSTS) AND USAGE (INTERNET USERS), 2003

## The Digital Divide in Portugal

The ability to use ICTs is widely assumed by most commentators as a basic requirement to living and working in the information society (Selwyn, 2003). However in Portugal there is no data source currently defined about the use of the Internet by citizens or enterprises at a local scale. Periodic population censuses do not include any questions connected with this issue, at the same time that the more frequent surveys on the diffusion of ICTs, among households and firms, are based on samples without a representative purpose at a municipality scale.

The complete absence of official statistics spatially disaggregated, on the ways that citizens and firms have been using the Internet, creates great difficulties to the research work concerned with a more complex understanding of the digital divide in the Portuguese context. For this reason we will focus our attention in a merely attempt to identify the geographical differential access to high-speed broadband service. Nowadays speed and bandwidth are essential for fulfilling the promise of the Internet, and if “access alone does not solve the problem, it is a prerequisite for overcoming inequality in a society whose dominant functions and social groups are increasingly organized around the Internet” (Castells, 2001, p. 248).

Broadband penetration in Portugal was 5% of the population in January 2004 (571.500 broadband access customers). Portugal is one of the very few countries in the European Union where the number of cable subscribers is greater than the number of DSL customers, 59,4% and 40,1% respectively of the total broadband customers in the first quarter of 2004 (ANACOM, 2004). The initial preponderance of cable subscribers may be related to the fact that the extension of broadband accesses depends on the improvements of the initial infrastructure. Benefiting from the fact that cable television networks were deployed in the past in Portugal, it was possible a quickly provision of broadband access by cable while it was necessary to invest in the implementation of DSL technologies over the cooper telephone network.

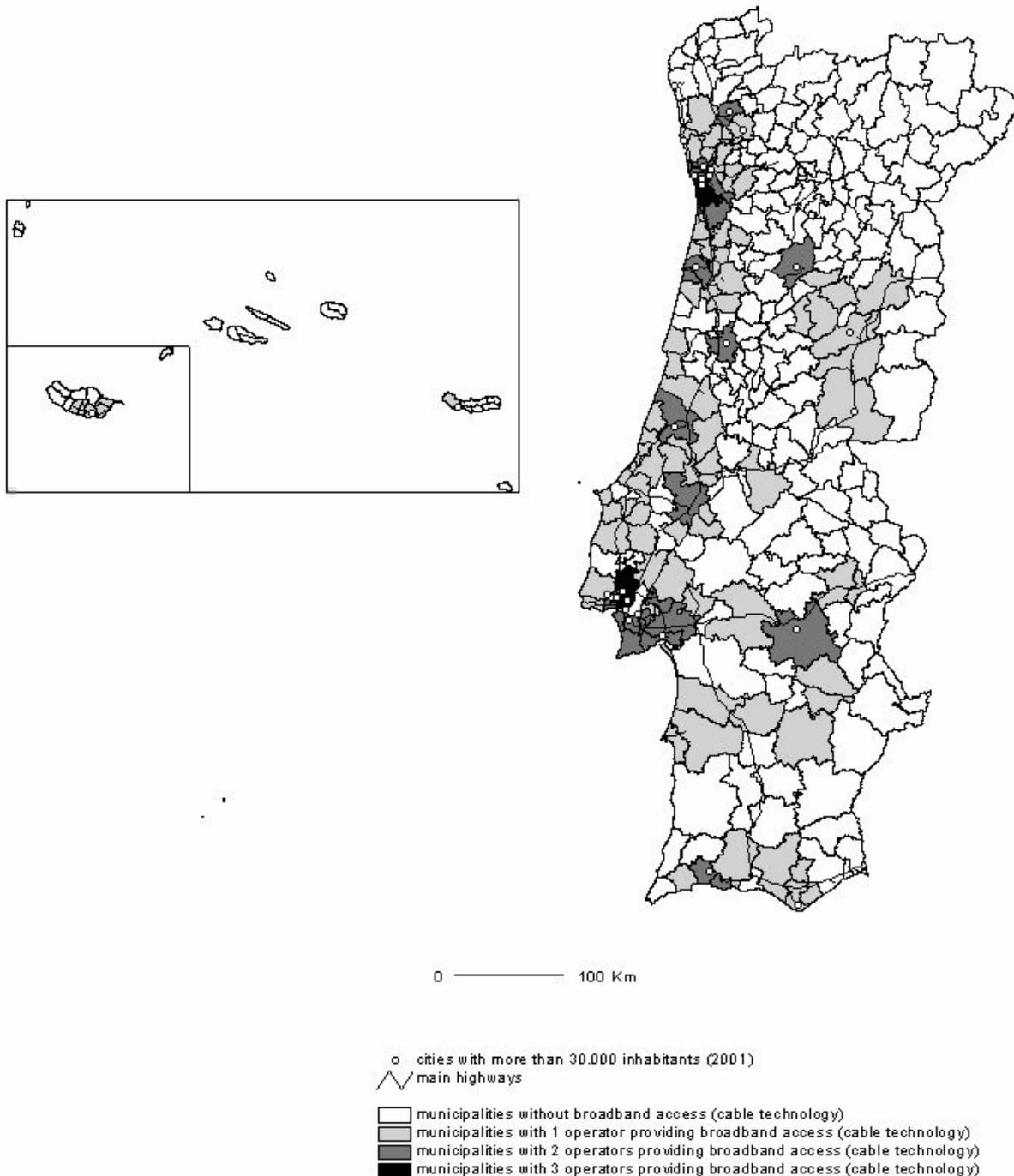
Concerning the spatial distribution of broadband connection by cable<sup>ii</sup> (Figure 5), one main conclusion is the non-existence of this broadband option in 199 municipalities in the mid-2004 (in a total of 308 municipalities in Portugal). Non-served municipalities correspond to almost 67% of Portuguese surface, but it is obvious that excluded areas from cable broadband deployment are larger, because coverage in most served municipalities is far from complete<sup>iii</sup>.

With the single exception of Viana do Castelo, the city that limits the north extension of the area institutionally, demographically and economically more dynamic in Portugal (close to the littoral border and stretching south as far as Setúbal Peninsula), all Portuguese cities with more than 30 thousand inhabitants benefit from Internet access with a speed significantly faster than dial-up connections. It is observable a clear correspondence between the municipalities served with the best levels of road accessibility and the cable broadband penetration, which emphasize the role of ICT's as a contribute to improve territorial disintegration tendencies, reinforcing existing patterns of physical communications.

Such conclusion is underlined by the analysis of the competition in broadband access by cable (generally responsible for higher quality services and in some cases lower prices), which is mainly taking place in densely populated areas. Only four municipalities, all of them placed in the central cores of the Lisbon and Porto metropolitan areas, are characterized by the presence of three cable ISP's. With two cable ISP's there are only 26 municipalities, which can be found in the periphery of the two metropolitan areas or in the municipalities where are located the Portuguese middle-sized cities (Nunes, 2004).

In spite of the benefits of broadband are particularly significant for remote and rural areas, as improved interactive services can address a variety of challenges posed by distance, cable ISP's do not find profitable to roll-out infrastructure in areas where expected demand is insufficient to ensure a positive return on investment (rural consumers generally have modest income and education levels). This consequence of the privatisation of telecommunications service is responsible for pronounced geographical digital divide in the broadband access by cable technology. Not a single cable ISP's provide service in four of the eighteen Portuguese districts: Viana do Castelo, Vila Real, Bragança and Portalegre.

Figure 5. ISP's competition by Portuguese municipalities, in the provision of Internet broadband access by cable technology (June 2004)



The Netcabo, which belongs to the Portugal Telecom (the incumbent operator and concessionaire of the telecommunications public service), reveal a market strategy that avoids the scarcely populated municipalities of Portugal. Being concentrated in the more developed and dynamic areas, Netcabo exposes a clear preference for the two metropolitan areas and its surrounding municipalities, as well as some of the Portuguese middle sized-cities. Cabovisão, the other cable ISP with an extensive cable infrastructure, presents a covering area that also include the most urbanised areas (with the exception of the north extension of the two metropolitan areas), and as a consequence of the ring configuration of its network it also provide access to some urban agglomerations do not covered by Netcabo (specially the Beira Interior urban system: Guarda-Covilhã-Castelo Branco) as well as some rural municipalities in the North Alentejo.

From all Portuguese cable ISP's, Colt is the single one that provide broadband access with a network totally constructed with fiber optic technology (transmission of digital signal by the use of light waves, which is responsible for the maintenance of a huge bandwidth – Gigabits per second). Its network in Portugal (around 85 kilometres) is restricted to the municipalities of Lisbon, Oeiras, Amadora and Loures (all of them in the central section of Lisbon Metropolitan Area). The economic viability of such investment depends on a spatial concentration of enterprises with interest to transmit electronically huge amounts of information (from economic sectors as: financial, information technologies, informatics, media...). As a consequence, the implementation of such networks are restricted to the urban areas that concentrates those enterprises, according to market rules in search of profitable returns of initial investments. This prerequisite can be a clear contribute to an increasingly over-concentration of those units, specially because the accessibility to fiber-optic cable is becoming a new location factor for the implantation of firms that are currently emerging in these economic branches.

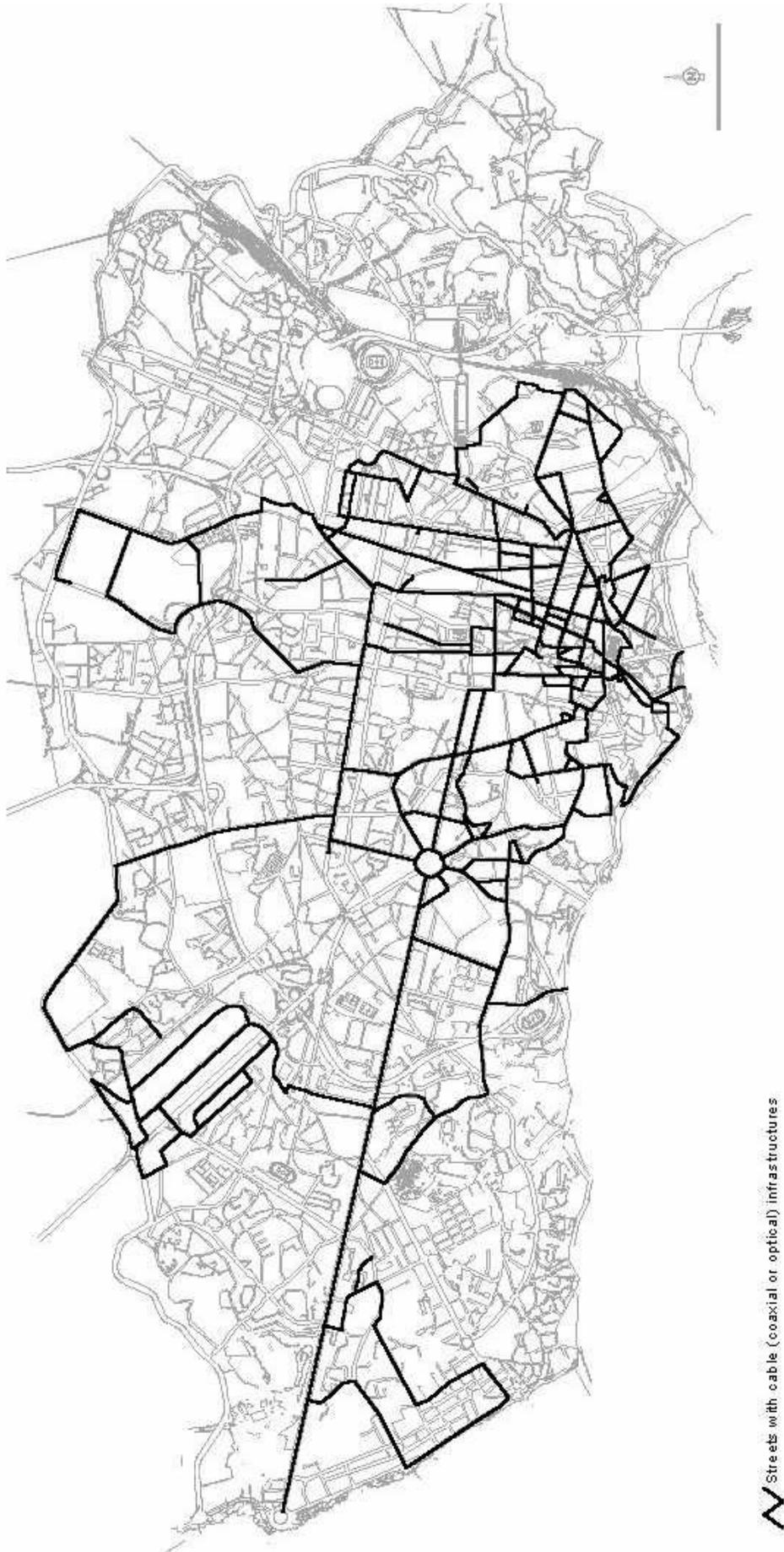
This is a clear illustration how ICT impact on the location of activities can be a decisive contribute to improve already marked territorial disintegration tendencies.

In spite of this general tendency, a deeper analysis shows that the spatial boundaries of the broadband access by cable technology are much more complex than simplistic distinctions between urban/rural areas. In order to expose significant variations masked by this urban agglomeration tendency we have done an intra-urban investigation conducted within the city of Porto, located in the north of Portugal (Figure 6).

Served areas correspond essentially to the two main symbolic centralities of Porto in terms of retailing services, banks, offices or hotels (the downtown and the Boavista). It is also possible to highlight three other areas served by cable ISP's but with a functional profile more specialized: an area where are concentrated several universities and health care services and which is being assumed as a new centrality of the city attracting new residents and economic activities; the Porto industrial zone and a residential area strongly connected with high income residents (Foz).

Analysing the streets where cable ISP's have considered profitable to roll-out cable infrastructure, it is clear that according to the network approved by the City Council up to 2004, the main criteria of these private operators is to provide the access to this high speed information network in areas where there is already an expected demand in order to minimize the risk of such investments: basically economic activities or residential segments with high income. Furthermore according to information transmitted by persons in charge from the City Council, this infrastructure has been only punctually updated for the past two years. The actual network is basically the same since 2002, which help us to contradict general assumptions about the preferences of private operators to fill in non-served areas inside already supplied cities, in spite of being investing in rural municipalities. Therefore, this recent expansion tendency, clearly slow and based exclusively on market rules, will make it difficult to extend the cable network to a great number of residents even if they live inside the most important Portuguese urban agglomerations.

Figure 6. Porto streets with cable infrastructures (coaxial or optic cable) promoted by private operators - 2004



Source: information reached from Porto Town Hall, network licenced by the City Council to 4 private operators (Jazztel, Oni, Novis, Vodafone)  
Note: cable network promoted by the incumbent operator (Portugal Telecom) do not need a City Council licence and for that reason is not included in this map

## Conclusion

In this paper we discussed several statistics based on cartographic analysis, in order to contrast, at a global, national and local scale, the dual effects of the Information Age: on the one hand a new opportunity to promote employment and economic competitiveness, as well as supporting social integration policies; on the other hand the general conviction that productivity gain from ICT is widening the gap between developed and developing economies (areas) while the information networks are mainly attracted to existing urban structures and more developed regions.

The results obtained with this research contribute to clearly demystify the bipolar societal split that supports the “digital divide” concept, showing that disparities and have-nots exist also in developed countries and even inside its most urbanized areas. Spatial boundaries of this geographical digital inequality are basically a result of market rules: household and business density, as well as income and education, play an important role in the provision of such services or in the ability to use them effectively. Consequently and from a territorial occupation model perspective, the digital divide adds a heavy burden to any attempt of correcting disparities and stimulate socio-economic cohesion strategies.

The signals collected in this study underline ICTs as forces with strong territorial discriminatory effects, from a global to a local scale. As we have demonstrated the mere application of pro-competitive policies in Portugal was not sufficient to generate a widespread dissemination and use of telemediated services and applications by citizens, as well as for enterprises to carry out electronic transactions helping them to boost local economic development. In order to adjust market failures or complement market forces, public funding in under-served areas must be considered necessary in order to stimulate investments to allow ICTs access and usage, otherwise the full exploitation of the new opportunities provided by ICTs would be known in a near future as a way to increase already marked geographical disparities and territorial disintegration tendencies.

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### **End Notes**

<sup>1</sup> Each variable is converted to an indicator with a value between zero and one by dividing it by the maximum value or "goalpost". Each indicator is then weighted within its category and the resulting category index values are averaged to obtain the overall Digital Access Index value.

<sup>2</sup>We will analyse both coaxial cable and fiber-optic cable because some Portuguese ISP's decided to provide a hybrid solution with the conjugation of both these two technical supports.

<sup>3</sup> It is considered as served municipalities those where one or more operators provide the service in at least some part of the municipality limits.

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SECTION 2  
COUNTRY SPECIFIC STUDIES

2005

# Agency Problem in the Context of Chinese Transitional Economy: A Case Study

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## Abstract

This paper analyzes the agency problem in the context of Chinese transitional economy. Chinese economy has been transformed from the command economy to the current market economy. The characteristics of transitional economy make the agency problem in China even more complicated, which calls for more time and patience to deal with. After analyzing agency problem in the case of China Aviation Oil, this paper discusses policy options to deal with the problem, including convertible debt, preferable equity and risk management with financial derivatives, which call for further development of Chinese financial market.

## Introduction

Agency problem is rooted in the corporation capital structure defined by the generally accepted decree of Anglo-Saxon corporation governance. The difference between the creditors' and equity holders' positions in claiming on corporations' assets is the institutional foundation of the conflict between corporation creditors and shareholders. The priority of payment from the operation of the corporation is, first, to the creditors in the form of interest and principals, then, to the share holders, in the form of dividends. Therefore, the creditors are the fixed benefit claimers who take less risk of investment and benefit from the operation first. The shareholders are the residual claimers of the corporation benefit distribution.

Corporation shareholders, however, functioning through the board of directors, are in the position to make investment decisions to maximize their wealth. As a result, there is a natural incentive for the equity holders to take risky investment project whenever possible. The underlying reason for the adverse selection is that if the investment project pays off, both creditors and shareholders benefit from the satisfactory performance. But, the creditors only get the fixed payment and the shareholders get all the rest of the benefit. Hence, the more risky the investment project is, the more benefit will the shareholders gain. On the other hand, if the investment project fails to pay off, both the shareholders and creditors have to bear the loss. This indicates that the benefit structure of shareholders and creditors are asymmetric.

By taking risky projects, the equity holders could utilize the leveraged asset from corporation creditors to pursue their own interest at the expense of the interest of creditors. The severity of the conflict between the shareholders and bondholders is determined primarily by the debt-equity ratio. As debt level in the capital structure rises, the conflict becomes more significant. But other factors, such as the range of investment projects available to the firm, also affect the severity of the bondholder-shareholder conflict.

Chinese economic regime has been transformed from the command economy to the market economy since 1980s. Nowadays, many important features of Chinese economy stay between a command economy and a market economy. However, the state-owned enterprise culture and the creditors' practice have the closest relationship with the agency problem in Chinese corporations.

Based on a case study, this paper explores the agency problem in the context of Chinese transitional economy and tries to figure out the possible causes of it, and then discusses policy options to deal with the agency problem.

## Literature Review

Agency problem is also sometimes referred to as the principal-agent problem. The difficult but extremely important and recurrent organizational design problem of how organizations can structure incentives so that people ("agents") who are placed in control over resources that are not their own with a contractual obligation to use these resources in the interests of some other person or group of people actually will perform this obligation as promised -- instead of using their delegated authority over other people's resources to feather their own nests at the expense of those whose interests they are supposed to be serving (their "principals").

Agency problems are caused by the separation of ownership from control in large firms (Berle, 1932). Jensen and Meckling (1976) apply agency theory to the modern corporation and formally model the agency costs of external equity. Managers who own anything less than 100% of the residual cash flow rights of the firm have potential conflicts of interest with the outside shareholders, since they choose to reinvest the free cash rather than return it to investors (Jensen, 1976, 1986).

Grossman and Hart (1982) were the first to argue that managers could pre-commit to work hard by using debt rather than equity. Similarly, Jensen's (1986) free cash flow theory considers additional debt beneficial since the firm attempts to improve the productivity of its assets as a result of additional debt acquired. Debt not only reduces the free cash flow but also provides discipline to management through the debt market. Debt monitoring hypothesis is formalized by Harris and Raviv (1990) and Stulz (1990) and empirically demonstrated by Maloney et al. (1993). Shleifer and Vishny (1997) provided extensive survey about the role for debt in reducing the conflict of interests between managers and shareholders. On the other hand, increased leverage also induces agency costs. As leverage increases, the usual agency costs of debt rise, including bankruptcy cost (Jensen 1986). Myers (1977) pointed to the debt overhang problem where firms may forego positive net present value projects if they have significant debt outstanding. The reason is that for a firm facing financial distress, a large part of the returns of a good project goes to bondholders. Therefore, in choosing their debt-equity level, firms should trade off between the agency costs of debt and the agency costs of equity. By appropriately allocating refinance between equity and debt, capital structure can balance the conflicts between investors and management as well as that between management and creditors. Agency problems of Chinese listed firms have also been widely discussed. The main characteristic of the Chinese corporate governance, among others, is the over concentration of equity structure (Zhang 2002). Most of the listed firms in China are transformed from state-owned enterprises (SOEs). Ownership structure displays the phenomenon of the co-existence of control shareholders, who are normally related to the state holds shares of most listed firms in great concentration. Of the listed firms, 54% of the equities belong to the state or state-owned corporate persons. Among the 1104 listed firms on Shenzhen and Shanghai stock exchanges, the proportion of shares of the number one shareholder had reached 45% and the second largest shareholder made up 8%. One major problem in the governance of Chinese listed firms is that the management lacks long-term incentive and restraining mechanism. The board of directors is mainly formed by control shareholders. The lack of independent directors makes it difficult to display their regulating and balancing roles. Among all the directors of the listed firms, 73.3% have the background of state shares (27.9%) or shares of state-owned corporate persons (45.4%). Since the manager holds fewer shares, and is subordinate to controlling shareholders, the agency problem between shareholders of a firm and its manager has turned into the second dimension, the conflict between the controlling shareholders and small shareholders.

The vast majority of China's listed firms are formerly state owned or state controlled firms, mostly large and better performing firms. Before initial public offering, they do their best to dispose of the debt. So, the debt to asset ratio of listed firms is lower during the first couple of years after initial public offering. Due to the special ownership structure of listed firms, state share is absolutely the largest among total shares and the representatives of state shares are usually absent. This reduces the restriction to management, and the managers are likely over pursue the control right the cash flow. The consequence is that re-financing of listed firms would have partiality for equity rather than debt. In addition, there is not much pressure of dividend payment from shareholders, so refinancing of listed firms in China usually place the order of debt after additional or right offerings.

Contrary to Myers argument, which pointed to the debt overhang problem where firms may forego positive net present value projects if they have significant debt outstanding, this paper focuses on the other end of the agency problems caused by the leverage of the corporation. Particularly, this paper argues that there is a tendency of the corporate shareholders to take risky projects to pursue extraordinary interest for themselves at the expense of the interest of creditors.

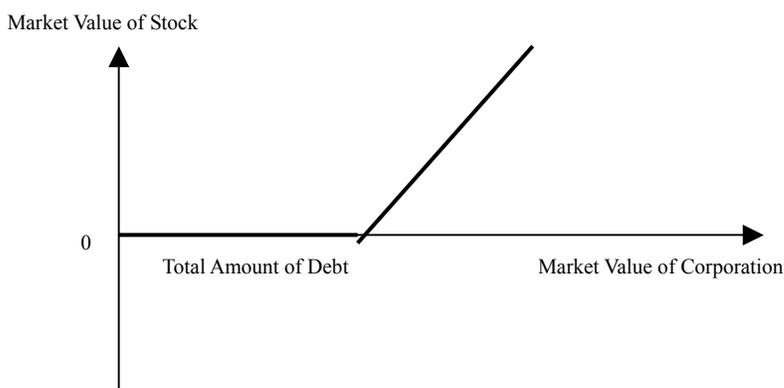
## The Option View of the Agency Problem

An option is a derivative contract that can be traded both in the exchanges and over the counters. An option, by definition, is the right, not the obligation, to buy (in the case of a call option) or to sell (in the case of a put option) the underlying asset at a pre-determined price in the prescribed period. The option contract differentiates itself from other financial derivatives, such as futures, forward contract and swaps, because of its kinked-shaped value line, which gives option contract unique advantages in managing financial risks.

In addition to the general perception of the meaning of the plain vanilla options, there are wide spread interpretation of corporation equity as an option in the academic world of finance. This is because not only the similarity between an option and the equity in interpreting the residual claims of the investors, but also the implication of the option view of equity in interpreting the speculative behavior of corporation shareholders.

When investors hold stocks of a corporation, they are expecting the price of the stock to rise in the future. If the price of the stock rises, the investors obtain capital gains by selling (exercise the option) the stock to other investors. If, on the other hand, the price of the stock falls, investors can hold the stock to wait for future bull market opportunities. In this case, investors do not exercise the option. The investors will not lose anything by not exercising the option. Therefore, the stock is pretty much the same as the call option in nature.

Then, what is the exercise price of the option when we view the stock as a call option? As a matter of fact, it is the total amount of debt that the firm is carrying. This is because the stockholders are the residual claimer of the corporation's wealth according to the corporate governance. The value of the stock as a whole equals the difference of the market value of the corporation and the total amount of debt of the corporation. This enables us to depict the payoff of the stock as a call option in Fig. 1. Please note that the value line of the stock takes a kinked shape, which indicates that it resembles the nature of a call option.



According to the Black-Scholes (1973) Option Pricing Model (B-S Model), the value of a call option can be expressed by the following formula: (1)

$$C = SN(d_1) - Ee^{-rT}N(d_2)$$

As for the parameters in the formula,

$$d_1 = \frac{[\ln(S/E) + (r + \sigma^2/2)T]}{\sigma(T)^{1/2}}$$

$$d_2 = d_1 - \sigma(T)^{1/2}$$

where, S represents the value of stock;  
 E represents the exercise price of the option;  
 r represents the risk-less interest rate;  
 $\sigma$  is the standard deviation of the stock price;  
 T is the maturity of the option;  
 N( $\bullet$ ) represents accumulated normal distribution value.

With the B-S model, it is possible to calculate the price sensitivities of the option to the exogenous variables. The sensitivity of a call option to the standard deviation of the stock price is called Vega. The Vega of a call option, which equals the first derivative of the call option to the volatility (expressed as the standard deviation) of the underlying asset is given by the following formula:

$$\text{Vega of a call option} = [S(T)^{1/2} \exp(-d_1^2/2)] / (2\pi)^{1/2} \quad (2)$$

Let the stock price be \$164 and the exercise price of the option be \$165. If the continuous risk-less interest rate is 5.21%, the variance of the stock price is 0.0841 and the time to maturity of the option is 0.0959, the call option value can be calculated according to the B-S Model. The result is \$5.803. Vega =  $164(0.959)^{1/2} \exp(-0.0328^2/2) / [2(3.14)]^{1/2} = 20.25$ . It means that when there is a change on the standard deviation of the stock price, say 0.01, the change of the call option value would be  $20.25(0.01) = 0.20$ .

Please note that the value of Vega is always positive. That means when the volatility of the underlying asset raises (the risk of the asset increases), the value of the option increases. This proposition is fairly important in interpreting the speculative behavior of the corporation managers. This is because the mind set of B-S Model of option value is just contrary to the traditional asset valuation regarding the risk involved.

In the traditional Dividend Discount Model (DDM), the present value of an investment project is the sum of the discounted value of the future cash flows, which given by the following formula:

$$NPV = \sum CF_t / (1+r)^t \quad (3) \quad \text{Where, NPV stands for net present value;}$$

$CF_t$  denotes the cash flow at time t;  
 r is the discount rate.

When the risk involved in an investment project is higher, creditors will increase the discount rate to pursue a risk premium. This is the norm in banking industries' practice throughout the world. Therefore, the underlying philosophy of DDM is that the higher the risk of the investment, the higher the required rate of return, which is used as the discount rate to calculate the present values of the future cash flows.

By comparing the underlying philosophies of B-S and DDM Models, we conclude that valuations of investment project by these two models are exactly opposite. By employing the B-S Model view of the option valuation, we find out that the decision makers of corporation have the natural tendency to take risky investment projects because the more risky the projects, the higher the value of the option. It provides a rational clue for us to understand the motivation behind the adverse selection of investment project by shareholders.

## The Characteristics of Chinese Transitional Economy

In the economic spectrum, command economy is at one end and market economy is at the other. A command economy relies exclusively on administrative mechanisms of control. Resources are combined by fiat and contracts and laws play an insignificant role. The autonomy of various parties is limited. The state sanctions all significant interactions and risks and rewords are largely socialized. As a result, pecuniary incentives are not emphasized. By contrast, a market economy allocates control over resources primarily through formal and informal voluntary contracts between autonomous agents. The state provides a legal and regulatory framework for private arrangements and an enforcement mechanism for such agreements. The system is flexible and dynamic, whereby different solutions emerge within a common framework as participants combine the basic components of a governance structure to fit their own particular circumstances.

With few exceptions, most command economies have been opening up and liberalizing since 1989 when the Berlin Wall fell and the Soviet bloc broke apart. Chinese economy has been transformed from the command economy to the current market economy. Since the transformation is still under its way towards market economy, the legacy of Chinese command economy is still showing up in the process of economic development one way or the other. This paper concentrates on the role played by the state-owned enterprise culture and creditors' practice, which are largely accountable for the agency problems in China.

### The SOE Culture in China

For corporate governance to be effective and efficient, the following conditions must hold: First, equity holders as the owners of the firm must have adequate incentives to select the highly competent manager and to discipline the manager. Second, the manager must have adequate autonomy as well as adequate incentives to make business decisions with the business judgment rule, and is well-motivated to work hard. Third, creditors must have adequate incentives as well as effective measures to enforce debt contacts through bankrupt procedure. None of these conditions hold in Chinese SOEs. The debt finance has evolved into the debt crisis in China because although corporate finance of SOEs has changed a lot, corporate governance has changed little.

The government as the only equity holder has malfunctioned with both selecting and disciplining management because of the agency problem on bureaucrats' side. The most distinct feature of SOEs from capitalist firms is that, by definition, the role of principals in state-owned enterprises is played by the 'state' (government) rather than by natural capitalists: it is the government who appoints, motivates and disciplines managers. This fundamental feature of SOEs remains intact even today. Particularly, the government still holds full authority of appointing management. As Zhang (1994) pointed out, because of the adverse selection problem, selecting good management is hard work. It requires that selectors must have adequate incentives to find information about candidates' abilities and to install high quality candidates. Adverse selection is most serious in China, because, with no personal stake to signal ability, too many people pretend that they are qualified for management. Worse is that bureaucrats, unlike their capitalist counterparts, have the right to select, but do not bear consequences of their selections. This asymmetric structure implies that, not only would-be managers, bureaucrats themselves also have the adverse selection problem. They have no adequate incentive to search for good managers, and even if they know some are capable, they still lack the adequate incentive to install them. Observation suggests that bureaucrats, more often than not, base their selections on personal connections rather than merits. Appointing friendly managers is the most effective way for bureaucrats' rent seeking. Because of this, management pool of SOEs is full of lemons.

Although economic reform has gradually shifted considerable autonomy to management through various ways, the government still exercises arbitrary administrative intervention in business of SOEs. Separation of the government from enterprise business has been assumed as one of the major targets of the reform since the reform was inaugurated. Nevertheless, this purpose has so far never been materialized. This is true even after the state enterprise is corporatized in which case the government is formally and legally defined as the 'equity holder' and bureaucrats are appointed as 'board directors'. The fundamental reason for this is that when the state is the owner of the firm, bureaucrats are delegated with ownership rights to control the firm but bear no financial risk for their intervention. By definition, any owner has to supervise management through control rights. The state as a (and in most cases the only) equity holder will naturally intervene.

Furthermore, Chinese SOEs suffer not only from arbitrary administrative intervention but also from inadequate managerial incentive. Although the reform has improved the management's incentive to make quick profits through profit sharing, the long-term incentive problem has yet to be solved. Casual observation suggest that managers of SOEs prefer to distribute retained profits to employees or make investment in quick revenue-generating projects rather than to make investment in long term productivity-enhancing projects and R&D (Huang, Woo, Kalirajan and Duncan, 1998). They have over-incentive to expand their empire by borrowing from banks and to keep insolvent enterprises as going concerns, but under-incentive to make efficient use of borrowed money and to repay the creditors. In many cases, abnormal short-term profits are made at the large expense of long-term productivity (Broadman and Xiao, 1997). The reason for management myopia is that, given that there is no personal capital stake in the firm, the manager's enjoyment of benefits from the firm cannot beyond his firm tenure. He is very uncertain whether he will still be in the position even next year. This is because his firm tenure is mainly dependent upon bureaucratic preferences which are little related to firm performance. With bureaucrats making selection of management, good performers are just as equally likely to be removed as bad performers, if not more. This is because once a firm becomes highly profitable, bureaucrats have every incentive to collect rents by replacing the incumbent with their favorite. Thus, the best way for the incumbent to secure his position is to make the firm not too good and not too bad. This also partly explains why SOE managers typically underreport their profits.

### Creditors' Flunk

Creditor banks can exercise control over corporate governance in debtor enterprises in several ways (Gray 1997). Foremost, banks can exert influence by means of credit. By giving or denying credit or by making credit terms more or less favorable, the bank allows its debtor to strengthen or expand or obliges it to resort to a less attractive, alternative source of financing. The extent of this influence depends largely on the availability of such alternative sources, while the quality of the influence depends to a large extent on the bank's credit decision process.

Creditors exercise influence over borrowers based on laws and contracts. Legislation or contract covenants often give creditor banks the right to receive information, impose audits, require prepayment, veto certain strategic decisions, and so on. Some of these rights apply in the normal course of business, and others refer to the use of the bank credit or to developments that increase financial risk. In addition, creditors may exert influence in informal ways, such as being consulted about major decisions, invited to shareholder meetings, appointed to boards, or asked to second bank staff to work at the firm. Debtors may accept such practices if they have few alternative sources of financing because of weak competition among banks and little chance of accessing nonblank financing.

The approval or denial of credit by a bank can have a significant impact on a firm's strategic development. This is particularly true in China, where firms' access to securities markets is de facto tightly rationed and various other forms of nonblank financing have yet to develop. Thus a pertinent question in relation to corporate governance is whether the banks' credit decisions are sound. Until the mid-1990s, the lending decisions of state-owned commercial banks (SOCBs) were often not driven by borrowers' creditworthiness and the financial merits of their projects, but rather by persuasion by local or national authorities and by personal rent-seeking on the part of bank personnel. Efforts to rectify this situation have intensified in the last five years by such means as curtailing instructed lending, measuring bank performance more on the basis of profits than of lending targets, overhauling banks' credit approval procedures, and expanding training in credit analysis.

Nevertheless, the scope for improvement is considerable. While branch managers may be evaluated in part based on the performance of credits that they approved, the underlying portfolio classification may be manipulated by those same managers because internal control practices and regulatory supervision are still weak. Moreover, banks still consider project analysis a secondary matter, given their exclusive reliance on collateral and third-party guarantees. In addition, the financial performance of state-controlled enterprises still depends largely on government decisions about industry rationalization, technological upgrading, and other forms of support. This limits the usefulness of assessing borrowers and their projects on their own merits.

Chinese banks have few rights to influence their clients' strategic decisions. The standard credit contracts include few covenants that permit real involvement. On such matters as major financial or asset restructuring, ownership changes, or changes in business lines, at best they usually require "information" rather than consultation, let alone approval. Neither do they require strict maintenance of key financial ratios. The only strict covenants tend to concern repayment terms, credit security, use of the credit funds, and perhaps adherence to government programs related to the credit. To date banks have had little direct influence on their borrowers' strategic decisions through means other than legal and contractual requirements. Client enterprises do not generally consult the principal bank before making major decisions. More often than not, they even make investment decisions before approaching the bank for credit.

Publicly listed firms do not tend to invite key bank personnel to their annual shareholders' meetings, and bank managers are rarely appointed as external members of their client companies' boards of directors. While an increasing number of external members do sit on company boards, they are usually representatives of major shareholders, including local governments. In some cases bank managers avoid seeking board memberships, because they believe it violates the prohibition of second jobs by bank managers under the Commercial Banking Law. If their borrowers default, creditor banks' rights are weak. Banks have less influence on defaulting debtor enterprises than in industrial market economies. The lack of a credible threat of bank influence in the case of defaults has also weakened the banks' overall clout under normal circumstances.

## Chins Aviation Oil Co.: A Case Study

### The International Background

Let's have a look at the background of the event of China Aviation Oil (Singapore) Co. Ltd. (CAO). Since the 9/11 event of 2001 in the U.S., the international anti-terrorism war has entered into a new phase. In March 2003, the U.S. started the Iraq War regardless the disagreement of other members of the UN Security Council. In the mean time, OPEC kept cutting the output of crude oil again and again. Other oil-producing countries (Russia is one of the biggest among them) also controlled their crude oil production.

Meanwhile, China's economy has entered a high growing track. In the last ten years, the average growth rate of Chinese GDP is 9.3%. The rapid growth of Chinese economy pulls up the world demand dramatically. According to a report of *Business Week*, "China needs energy more than ever. Its quest for oil and gas to keep its economy humming will change the world."<sup>vi</sup> At present, "China's energy consumption is 12.1% of the world total, which is second only to that of the U.S. (24%)."<sup>vii</sup> Largely due to the factors mentioned above, the world oil price has rocketing to an unprecedented level in 2004. This perhaps was one of the most striking phenomena of world economy in 2004.

Fig.2 gives international oil price change during the period of 2001 to the beginning of 2005.

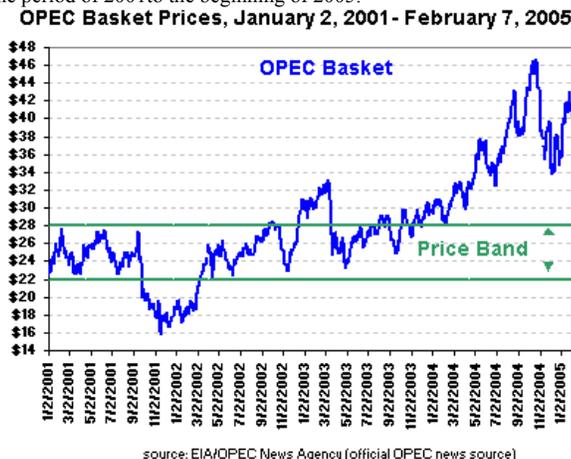


FIG. 2: WORLD OIL PRICE IN 2001-2005

### China Aviation Oil Co.'s Event

CAO was established in Singapore in 1993 as the over seas division of China Aviation Oil Group (CAOG). CAO made its initial public offering on December 6, 2001 in Singapore Security Exchange. In the third quarter of 2003, CAO entered the futures market by taking a long position of 2 million barrels of crude oil futures and gained considerable profit. In the first quarter of 2004, the price of crude oil spiked. Since CAO took a short position in option and the price of oil went in the opposite direction to CAO's expectation, it lost \$ 5.8 millions. In the second quarter, CAO continued to lose in its crude oil futures positions. The loss became \$30 million then. In order to avoid further loss, CAO postponed the delivery dates of some of its option contract to 2005 and 2006. In October, 2004, the total number of CAO's futures contract was increased to a record high of 52 million barrels. As the price of crude oil spiking, CAO was facing huge losses. On October 10, CAO reported the loss of \$180 million to its mother company, CAOG, for the first time and submitted \$80 million maintenance margin to Singapore Security Exchange. During October 26 – November 17, CAO had to deliver crude oil of several option contracts because they were matured. Since the price of crude oil was opposite to what CAO was expecting, CAO suffered a total loss of \$550 million. On November 29, Mr. Jiulin Chen, CAO's CEO, asked bankruptcy protection from Singapore Court. On the next day, CAO stopped its transactions on crude oil futures.

### CAO's Trading Strategy

Let's have a look at the trading strategy of CAO, which caused huge loss in 2004. Mr. Jiulin Chen took a short position in crude oil call option.<sup>v</sup> The payoff of this trading strategy is illustrated by Fig. 3.

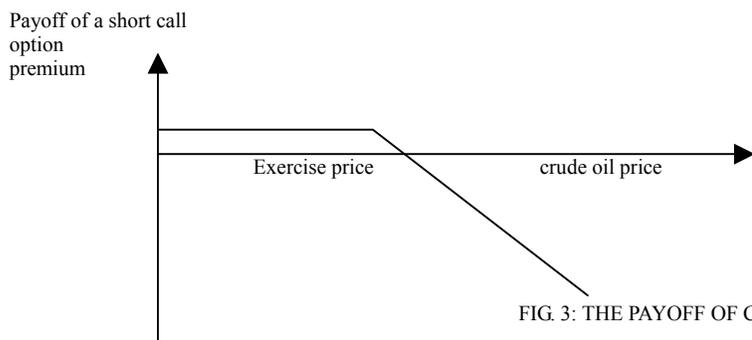


FIG. 3: THE PAYOFF OF CAO'S TRADING STRATEGY

From Fig.3, we know that the investor selling short an option is holding a stake on the future direction of the price change of the underlying asset, the crude oil in this case. If the oil market turns out to be a bear market, which means the price goes down in general, the investor will gain from this trading strategy. This scenario is exactly what CAO was expecting when Mr. Chen initiated a position in short call option. Nevertheless, if, contrary to what the investor is expecting, the oil market turns out to be a bull market, which means the price goes up in general, the investor has to bear the loss<sup>vi</sup>. As a matter of fact, this is exactly what happened to CAO. The loss of CAO was \$550 million in total. The loss was so high that CAO was called "the second Baring Bank".

### What Went Wrong?

It is not difficult to understand that then trading strategy taken by Mr. Jiulin Chen is not a hedging strategy, but rather a speculative strategy. The risk involved in the strategy of selling short a call option is considerably high. When the crude oil market turns out to be a bear market, the investor selling short a call option will gain from this trading strategy. According to Fig.3, the magnitude of the gain, however, is limited. The maximum of the gain from this trading strategy is the option premium of the selling call option. Nevertheless, when the oil market turns out to be a bull market, the investor selling short a call option will bear the loss. Even worse, the magnitude of the loss is unlimited. Putting it in another way, the risk of selling short a call option is unlimited, at least theoretically.

There are obvious shortcomings in the financial risk management system of CAO. It declared that it would purchase Singapore Petroleum Corporation (SPC)'s shares from Indonesian Satya Capital at a cost of \$220 million on August 18, 2004. After Mr. Chen's reporting of huge loss of the option trading on October 10, CAOG decided to stop purchasing SPC. However, this decision has never been disclosed to investors in any occasion. Furthermore, CAOG sold 15% of its shares through Deutsche Bank on August 20, 2004. The total income of the sales of shares was \$108 million. CAOG paid these \$108 million for the maintenance margin of the trading position of CAO. However, it was told to the investors that it was used for the purpose of purchasing SPC<sup>vii</sup>. One insider of CAO said, "He (Mr. Jiulin Chen) was promoted as the vice general manager of CAOG. After that, the supervision and risk control on him have become weaker and weaker."<sup>viii</sup> An article in the *Economic Observer* pointed out that "Mr. Chen is not the only person who should be responsible for this event. The management of CAO's taking risky projects, violating the regulations of the corporation and making serious decision error are the truly causes for this huge loss".<sup>ix</sup> In addition to the shadow of SOE culture, we can also see the creditors' flunk in the process of CAO's event. Mr. Jiulin Chen was a super star in Singapore Security Market. Although we can detect the signs of risk in management selection and risk management system, the risk is actually rooted in the heart of people. By leading the company for 8 years, Mr. Jiulin Chen made a personal miracle for himself. In 2003, he was awarded as the "New Economic Leader of Asia". The news release from every newspaper is full of praises. In addition, the operation of CAO became a successful case in the MBA program of Singapore State University<sup>x</sup>. In 2003, the rate of return of the shares of CAO was breathtakingly as high as 346.3%<sup>xi</sup>. All these brought CAO and its CEO, Mr. Jiulin Chen, a shining ring of light, which deepened the investors' believe in their investment in CAO. However, only one year later, the event of CAO became the top scandal in the media of Singapore at the end of 2004. It was reported recently that CAOG released \$100 million in order to save CAO from

## A Discussion on Policy Options

In Chinese SOEs, where results are not readily measurable with much precision, the nature of the board of directors' work is such as to require a very high degree of expert judgment and lines of responsibility and authority are very complex, the top managers work individually in widely dispersed work places, the managers' activities necessarily involve a lot of "judgment calls" to cope with rapidly changing circumstances and highly uncertain information, and large numbers of investors have only relatively small individual "stakes" at risk -- the incentives for agents faithfully to represent their principals may easily become so weak as to be largely ineffective. Experience demonstrates that these kinds of organizations often come to be run mainly for the benefit of the agents (shareholders) rather than their purported principals (investors).

The agency problems in Chinese transitional economy are intensified by the aforementioned characteristics. From the Principle of Self-Interested Behavior, we know that agents may be tempted to put their own self-interest ahead of those of the principal. As a result, an agent's decision making becomes suspect when the interests of agent and principal compete. The conflict arises when there is moral hazard inside the firm, which is called the agency costs of equity. This agency problem can be solved by increasing management ownership because high management ownership aligns the interests of management and shareholders (Jensen, 1976). Other possibilities include monitoring of management by large shareholders (Shleifer, 1986), and the use of debt financing to discipline managers (Jensen, 1986; Stulz, 1990). Two of the important tasks of the academic disciplines of business administration and public administration are to identify, and then to devise cheaper substitutes or remedies for, organizational arrangements that are characterized by costly agency problems. In order to better deal with the conflict between bondholders and stockholders, firms might need to consider one or more policy options discussed in the following paragraphs.

### Make the Debt Convertible

A convertible bond is a bond or other fixed-income security which may be exchanged for a number of shares of common stock. Convertible bonds contain embedded equity options—a standard bond plus a call option on the value of the issuing firm's equity. But this right to convert to equity also can be viewed as an option held by the bondholder on the behavior of the firm's shareholders. If the shareholders behave opportunistically so as to transfer value from bondholders to shareholders, the right to become a shareholder becomes valuable. The aim of making the debt convertible is to align the interest of bondholders with those of the shareholders. Therefore, convertible bonds can serve as a mechanism to curb shareholders' speculative behavior to take risky projects.

### Issue Preferred Stock

Preferred stock has features similar to both equity and debt. Like a bond, it promises to pay to its holder a fixed amount of income each year. In this sense preferred stock is similar to an infinite-maturity bond, that is, a perpetuity. It also resembles a bond in that it does not convey voting power regarding the management of the firm. Preferred stock is an equity investment, however. The firm retains discretion to make the dividend payments to the preferred stockholders. It has no contractual obligation to pay those dividends. Instead, preferred dividends are usually cumulative; that is, unpaid dividends cumulate and must be paid in full before any dividends may be paid to holders of common stock. In contrast, the firm does have a contractual obligation to make the interest payments on the debt. Failure to make these payments sets off corporate bankruptcy proceedings.

Preferred stock is issued in variations similar to those of corporate bonds. It may be callable by the issuing firm, in which case it is said to be redeemable. It also may be convertible into common stock at some specified conversion ration. A relatively recent innovation in the market is adjustable-rate preferred stock, which, similar to adjustable-rate mortgages, ties the dividend to current market interest rates. The preferred stock makes the corporation rely less on the stocks and more on the debt financing and thus reduce the probability that future adverse market conditions will lead to default.

### Manage Financial Risks

The aim of this approach is to take necessary actions to reduce firm's financial exposure. Firm's attitude towards financial risk will send a strong signal to the debt holders that the firm is financial conservatism and in a good position to repay the interest and principals to the creditors. The impact of risk management hedging is to reduce the variance in the distribution of firm value. Risk management can add value by avoiding investment decision errors. The M&M proposition implies that if hedging policy increases firm value, it does so by reducing contracting costs, by reducing taxes, or by controlling investment incentives.

Let's take a look at the same issue from the standpoint of creditors. Basically, bondholders, or rather, potential bondholders, are concerned about the probability that they will be left holding the bag, that the value of the firm's assets will be insufficient to cover the promised payments in the indenture. In addition to concerns about future market conditions, potential bondholders are concerned about opportunistic behavior on the part of shareholders who might declare a liquidating dividend, burden the firm with extra debt, or select risky investment projects. Potential bondholders, however, recognize the possibility of opportunistic behavior of the shareholders and protect themselves by lowering the price they are willing to pay for the firm's bonds. To convince potential bondholders to pay more for bonds, shareholders must assure them that wealth transfers will not occur. The risk management reduces the probability of company default, so potential bondholders will be willing to pay more for the bond. Hence, risk management can increase the debt capacity of the firm. Likewise, risk management can decrease the coupon the firm will have to pay on its debt. There are some empirical results regarding the impact of the risk management on firm's value. Block and Gallagher find a positive relation between the debt-equity ratio and hedging. Smithson and Smith's survey results (1) that firms that use the hedging instruments have significantly higher R&D expenditures and (2) that firms with more investment options have both lower leverage and more hedging suggest that firms that use hedging instruments have more growth options in their investment opportunity set. Although policy options have been proposed, the bottom line is that the agency problem can never be 100% solved in a world where virtually everyone has a healthy regard for their own self-interest and the relevant information for evaluating performance is imperfect, costly to obtain and unequally distributed between the agent and his principals. Indeed, rational principals will only pursue the available techniques for control to the point that the marginal increment in "agency costs" rise to equal the marginal benefits to them of the additional increment in "faithfulness" that they produce. That is to say, sometimes it is cheaper for principals to endure a certain amount of dereliction of duty by their agents than it is to pay for the precautions needed to prevent or punish it.

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## End Notes

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<sup>ii</sup> The same as note i.

<sup>iii</sup> *BusinessWeek*, "The Great Oil Hunt", p60, November 15, 2004.

<sup>iv</sup> The same as note iii.

<sup>v</sup> Junbo Fan: "Abuse of Financial Derivative—Lessons from China Aviation Oil", *Economic Report of 21 Century*, Dec. 23, 2004, p19.

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<sup>vii</sup> Yiping Luo: "Restructuring of China Aviation Oil, Small Shareholders Postpones Suing", *Economic Report of 21 Century*, Dec. 23, 2004, p19.

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<sup>ix</sup> The Editorial of Economic Observer: "What Did China Aviation Oil Ignored?" Dec.20, 2004, P1.

<sup>x</sup> The Same as note viii.

<sup>xi</sup> "Why Hasn't China Aviation Oil Bankrupted? The Answer Lies in Crude Oil Importation Oligopoly Power:" The Editorial of *Economic Report of 21 Century*, Dec. 20, 2004.p1.

# **Analyzing Public Relations Position and Activities of Public Administration Bodies in Transitional Slovak Economy**

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## **Abstract**

The study deals with the public relations activities, its position in public administration bodies, and specific features of performing PR in public sector. Next part of the study is dedicated to presenting some significant selected research results. Research was performed in the Eastern-Slovakia public administration bodies; respondents were heads of those bodies (chairmen). In the research very interesting question was the most suitable education- branch of study, or combination of branches. The opinion of respondents – practitioners from public administration - is presented and it gives us also some suggestion for the university offer adjusting.

## **Public Relations and its Specific Features in Public Administration Bodies**

As a matter of course the care of public relations activities is for public sector organizations inevitable. Neglecting that area can lead to very negative implications in the public opinion of the institution and to problems in its work.

Many people often equate public relations with publicity - obtaining publication of favorable stories about the institution – but that is only part of the public relations task. The most frequently quoted definition of public relations is the following: Many specialists agree with the view of public relations, that it is the management function that evaluates public attitudes, identifies the policies and procedures of an individual or an institution with the public interest, and executes a program of action to earn public understanding and acceptance

In accordance with Philip Kotler & Gary Armstrong [2] public relations involves building good relations with the institution's various publics by obtaining favorable publicity, building up a good "corporate image", and handling or heading off unfavorable rumors, stories, and events.

The essence of the relations with the publics is the same, whether one speaks of political sphere "social or business relations, charitable or foundation associations each of which has its own specific needs. And since diverging external milieu is contained within significant specific features (entrepreneurial sphere, offices, associations, political parties, variety of clientele, etc.), we raised a question whether the managers, directors of public administration bodies work in such a manner that they obtain the agreement from the former through the outcomes of their performance, suitable forms of communication with external milieu, whether the managers acknowledge the substantiality of PR (under the centrally planned model of managing the society such activities more or less did not exist, the primitive form of "books of complaints" may not be identified with PR!).

A public relations manager in public administration bodies is then adjusted within considerably different conditions as a manager in the organizations with entrepreneurial activities. The differences are given by both internal and external factors, their mutual relations and mutual conditioning. Apart from the above differences, one should briefly mention the following (from these the position of public relations is prevalingly derived):

- Specific communication with clients, citizens, by providing services in public sector, and public administration bodies [1].
- In public sector organizations there is absence of economic markets - consequence: lesser stimuli to decrease the costs, to increase the effectiveness and total outcomes,
- absence of market indicators and information (prices, costs, yields, profits, labour productivity, etc.) - consequence: narrowed space for taking one's own decisions,
- The performance of government is frequently of force-exerting character - consequence: absence of creative, innovative thinking, etc.,

- A greater tendency toward confliction of aims - consequence: looking for compromises (conflicting requirements from the clients and political representatives - effectiveness versus openness, effectiveness versus social equality, etc.,
- More frequent encounters with interventions, external interest groups and political bodies,
- More frequent occurrence of tendency to lower respect for relationship between the flattening organizational structures and effectiveness,
- Organizational structures of public organizations are usually given from the top (they are under bureaucratic pressure, are a bureaucratic structure, etc., etc.

## **Selected Significant Results of the Research**

The objective of the research was obtaining the knowledge of the level and quality of forming the relations with the public and mapping the cooperation and contacts of local state administration with communication media. The subjects of the research were all of the district administration bodies in the region of Eastern-Slovakia, which is the largest third part in Slovakia. The essential file was formed by the local administration bodies. These are the institutions, which in relation to the citizens perform the largest spectrum of functions. In data collection, 81% returns (returnability) of the questionnaires have been achieved.

The research was performed in 30 public sector institutions – district administrations bodies of the Eastern-Slovakia region in April and May 2003. There were researched the heads of bodies (directors, managers). It offers a sufficiently qualified view of the problems defined by the structure of the present paper. Let us repeat that the main objective of the research was obtaining pieces of knowledge, opinions, and evaluations from individual district administration bodies concerning the level and quality of building the relations with the publics and mapping the cooperation and contacts of local state administration with communication media (the research was performed in form of questionnaires and 9 hypotheses had been defined in advance). From the results of research herewith select only those which answer the questions defined by us as those of having priority (for the present paper).

The questionnaire contained dichotomous scale, open questions and their combinations. 9 hypotheses have been prepared, out of which, due to the limitations of the present paper, we verbatim quote merely those whose verification confirms the state of PR position in district administration bodies and those pieces of knowledge which may be used in devising university educational strategies (preferences of study branches by the district administration bodies employees).

The paper stresses the specific characteristics of public administration management and the standpoints of the officials and employees of district administration bodies toward public relations. Despite the facts given to the attention of public administration management, it offers a topical appeal by Jan Rudy [3].

We have set hypotheses based on the results of research probe. The main selected results of the research are following:

- 54% of the heads of bodies consider public relations a significant element of management and 46% of the bodies consider the same to be exceptionally significant.
- As many as 62 % of the total number of district administration bodies have not a short-term or long-term plan of work with the public elaborated in which they focus on the solution of specific problems and requirements of the citizens and advertising the work of the body and only 38% of the same have such a plan.
- Over 51% of district administration bodies provide for the activities belonging within public relations by means of their own departments, only minority of such bodies use external agencies since the body has not been used to enjoy such services.

In the next part of the research we supposed that the examined set of respondents – district administration bodies chairpersons, consider the most frequently employed tools of public relations the following: meetings and conferences, notices issued by the administration body, information leaflets and bulletins, radio and television, boards, regional press (see the scheme, Fig. 1).

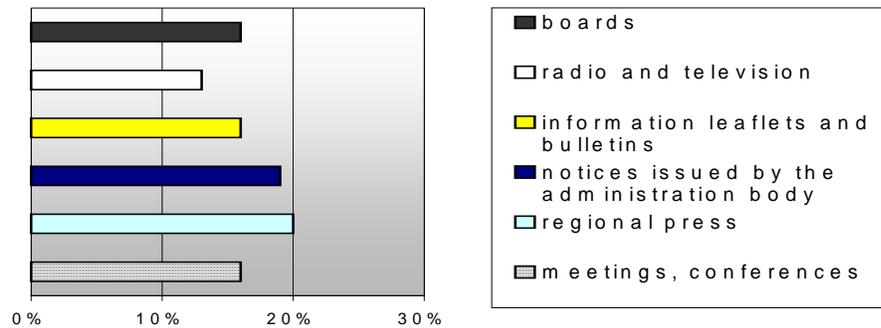


FIG. 1: THE MOST FREQUENTLY EMPLOYED TOOLS OF PUBLIC RELATIONS (VIEW OF RESPONDENTS)

The most successful three types of sectors of the public relations performance are, in the views of the respondents, from the total number 18 types of sectors, the first three being: area planning (29%), environmental (21%), housing policy (18%).

### Educational Branches Suitability for Public Relations Worker Profile

Very important task is to analyze the most suitable branch of study (university study) for the worker who should deal with public relations.

Public relations are multidimensional term and it contents many various activities. Optimal preparation should be combination of study branches, or interdisciplinary study [4].

Our research gives us one of the next results based on opinions of practitioners:

The most suitable branch of education for a PR worker is considered by the chairpersons of district administration bodies the following 4 study (academic) branches: law (27%), psychology (21%), sociology (18%), and economy (11%), see the Fig. 2.

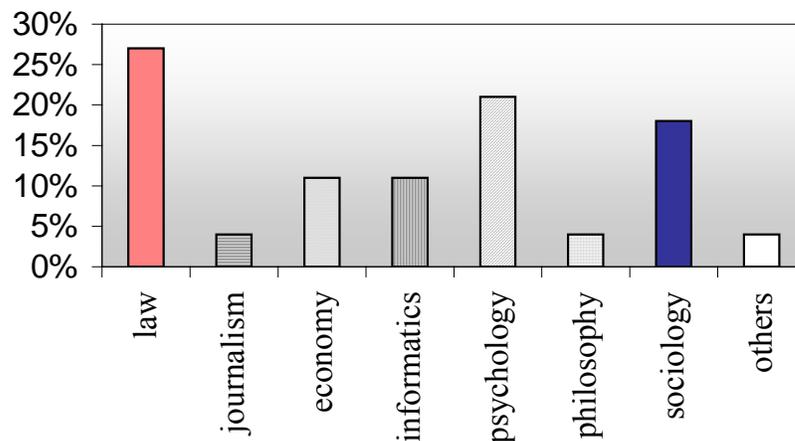


FIG. 2: THE MOST SUITABLE BRANCH OF EDUCATION FOR A PUBLIC RELATIONS WORKER BY OPINION OF RESPONDENTS:

The remaining hypotheses have been represented by the verified attitudes in decision-making and legal power, contacts with clients and relations to them, and the system of priorities in preferring the selection of target groups within state administration.

Public relations represent then work for the publics, with the publics, and in the publics, they bring in the organization the information on the responses from the public to their own performance, whereby creating a basis for inspiring and critical moments pertaining to the entire organization. They are then one of the essential functions of management [5].

In Slovak transitional economy there is necessary to transform public administration organizations, public administration bodies also nearer to clients, to citizens. Public service must be very responsive organizations.

A responsive institution makes every effort to sense, serve, and satisfy the needs and wants of its clients and publics within the constraints of its mission and its budget.

The highly responsive institution not only surveys current client satisfaction, but also researches client needs to discover ways to improve its service. Institution selects and trains its people to be client-minded.

Unresponsive institutions usually reflect bureaucratic mentality, tendency to routinize their operations, replace personal judgment with impersonal policies, specialize the job of every employee, create a rigid hierarchy of command, and convert the institution into an "efficient machine".

Each institution should evaluate how responsive it can and wants to be and then implement the programs to create and to optimize (raise) the level of clients' satisfaction. The reaching high client satisfaction is one of the best ways to improve the state of public relations and of image of public institution.

The formation of relations with the public from the level of public administration is justified since they pertain to all citizens, while the trust of the citizens is derived from the given relations between the citizens and public administration.

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# **International Strategic Alliances in Malaysia: Role of Research & Development on Knowledge Acquisition**

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## **Abstract**

International strategic alliances are currently a strategic mechanism by which firms acquire knowledge from potential partners. In accelerating the knowledge acquiring process, firms need specific activities that enable them to focus their learning efforts. Research and development (R&D) is believed to be the most effective way for firms to focus their efforts and maximise their knowledge acquisition from partners. Sixty Malaysian firms engaged in international strategic alliances were surveyed to examine the extent of R&D involvement in international strategic alliances. The effects of R&D activities and R&D expenditure were also analysed using censored regression. The findings reveal that the involvement of R&D in international strategic alliances in Malaysia is rather low. R&D activities show a significant effect on knowledge acquisition, while R&D expenditure shows insignificant effect on knowledge acquisition.

## **Introduction**

The 1980s and 1990s witnessed increasing complexities and uncertainties in technologies and products. This turbulent environment has forced firms to react aggressively as it affects their strategies and competitiveness in the market (Ohmae, 1989). International strategic alliances have become an option to deal with these rapid changes, as it enables firms to conduct their business across national boundaries. International strategic alliances are essential as they help firm to overcome potential difficulties and regain their competitive position in international markets. Thus, international strategic alliances, also known as collaborations, become necessary in order for firms to compete efficiently in the current turbulent and interdependent environment (Astley, 1984; Bresser & Hall 1986).

The rapid growth of international strategic alliances has been encouraged by several factors: speed and uncertainty of technological development (Contractor & Lorange, 1988); access to new markets & becoming innovative (Hagedoorn, 1993); coordinating and formulating technical standards and dominant design (Grindley, 1995); and increased market power by coordination among competitors (Porter & Fuller, 1986; Hagedoorn, 1993). One of the most widely cited motives for strategic alliances is the acquisition of new technical skills or technological capabilities from partner firms (Mariti & Smiley, 1983; Hamel et al., 1989; Shan, 1990; Hamel, 1991; Powell & Brantley, 1992; Moody, 1993; Khanna, 1996).

As acquiring new knowledge or technological capabilities is the most significant motive for collaboration, strategic alliances have become a strategic learning channel for firms to accomplish such a goal. Strategic alliances provide opportunities for exploring and learning new knowledge, which is becoming a managerial priority as it provides the basis for organizational renewal and sustainable competitive advantage. Strategic management researchers have begun to recognize knowledge as the most important resource that managers need to value and understand if they are to create sustainable competitive advantages (Epple, Argote & Devadas, 1991; Doz, 1996; Barkema, Bell & Pennings, 1996).

As many firms have now realized that self-sufficiency is becoming increasingly difficult in a business environment that demands strategic focus, flexibility and innovation (Drucker, 1995), the importance of international strategic alliances has grown significantly. International strategic alliances provide local firms with opportunities to pool their strengths with the help of foreign partners and create potential for firms to acquire knowledge associated with partner skills and capabilities (Inkpen, 1996). This knowledge can then be assimilated into the local firm's systems and structures. Without an alliance, access to the foreign partner's skills would probably be restricted, thus limiting opportunities for learning. The formation of alliances represents strategic

initiatives that create potential for creating experiences, actions, and strategic choices that provide the basis for learning. However, the formation of the alliance cannot ensure that its learning potential will be realized. Firms must take explicit steps to capitalize on the alliance's knowledge potential.

## **Learning and Knowledge Acquisition**

The core component in the knowledge acquisition process is learning. Without the learning process, knowledge cannot be transferred and acquired by others. Learning involves more than the mere taking in of information. Learning, instead, is a process that is about enhancing capacity. Learning is about building capability to create that which the firm previously could not create and is ultimately related to action, which information is not. Learning within the organization can occur at three levels: individual, team and organizational. Senge (1996) asserts that organizations learn only through individuals; individual learning per se does not guarantee organizational learning, but without it no organizational learning occurs. Argyris and Schon (1978) also emphasize that individual learning is a necessary, but insufficient condition for organizational learning.

In order to understand knowledge, firms have to value the complexities of acquiring, transferring, and integrating knowledge in a learning environment. The complexities of acquiring, transferring and integrating knowledge are more intense when firms from different countries are involved. The complexities are greater as firms have to deal with cross-border issues like skills and cultural differences, and the challenge of adapting organizational skills in diverse settings. International strategic alliances create learning prospects for the partner firms, as they bring together firms with different skills and knowledge bases. The primary interest in the strategic alliances is to gain access to the skills and knowledge of partners. This access can be a powerful source of new knowledge that would not be possible without the formal structure of an alliance (Inkpen, 1998).

Research and development (R&D) is known to be an activity that sparks new knowledge within an organization. Nonetheless, in the context of strategic alliances and learning, this activity has not been widely studied, particularly in the Far East region. Looking at learning capacity, Cohen & Levinthal (1990) argue that research activities would enhance firms' ability to learn as research activities enhance firms' technical expertise. As a result of such technical expertise, knowledge can be easily diffused to another firm or partner. This would facilitate the process of acquiring knowledge from the partner. Cohen & Levinthal (1990) similarly emphasize that R&D activities also indicate a firm's effort to learn and develop its absorptive capacity. The level of R&D activities and effort to learn can be represented by the allocation of expenses spent on research activities every year.

In Malaysia, international strategic alliances are growing dramatically as the Malaysian government, represented by Malaysian International and Trade Industries (MITI) strongly encourage local firms to collaborate with firms from other countries for the purpose of acquiring knowledge from foreign firms. Firms from developed countries, in particular, are the target, as these firms are assumed to possess the technologies that are required by the country. Establishing alliances with foreign firms is a means to access partners' knowledge, and conducting R&D activities is one way to speed up the knowledge acquisition process.

However, understanding of R&D activities and their role in enhancing the knowledge acquisition process between Malaysian firms and foreign partners is rather limited. Hence, this paper attempts to examine the extent of R&D involvement in the knowledge acquisition process in Malaysian international strategic alliances. The discussion will begin with an exploration of the link between R&D and knowledge acquisition, followed by assessment of the strategic roles of R&D in international strategic alliances in Malaysia. The paper will also highlight the influence of R&D activities in learning from the foreign partner and the degree of involvement and control of foreign and local partners in R&D activities. R&D expenditure is also examined to see its effect on knowledge acquisition.

## **Theoretical Background**

### **Knowledge Acquisition and Learning Capacity**

Acquiring knowledge from a partner is not a straightforward process. There are other elements that might influence the knowledge acquisition process. Knowledge acquisition is a function of learning capacity, which is largely determined by other elements. Studies show that prior related knowledge (Cohen & Levinthal 1990, Mowery, Oxley & Silverman, 1996), bureaucracy level (Dodgson 1993; Lyles & Baird 1994, Brown & Duguid 1991, Fiol & Lyles 1985, Hedlund 1994, March 1991), determination of firm to learn (Hamel 1991, Mansfield 1988, Inkpen 1998) and R&D (Cohen & Levinthal 1990) are likely to influence the ability of firms to learn, and result in knowledge being acquired.

Learning capacity is a concept that indicates the learning speed that a firm has where absorption and utilization of information is concerned. This learning speed varies among firms, there are some firms learn faster than others. Learning capacity enables a firm to absorb capabilities or knowledge outside its boundaries, and development of this capacity will result in the accumulation of knowledge (Cohen & Levinthal, 1990).

Cohen & Levinthal (1990) argue that prior related knowledge is a prerequisite for firms to assimilate and use the new knowledge. The absence of prior related knowledge would retard the process of putting the new knowledge into memory, thus slowing the process of acquiring knowledge. A non-bureaucratic and non-hierarchical structure and management approach would create flexible conditions that enhance the capacity of a firm to absorb new knowledge. Flexible conditions also encourage cooperation and information exchange among members and allow them to adjust their manner of operating to meet changing needs (Brown & Duguid 1991, Fiol & Lyles 1985, Hedlund 1994, March 1991). Valuable competences cannot be transferred without the intention to learn. Intention to learn represents the firm's determination to learn from the other partner (Hamel, 1991). Inkpen (1998) argues that if a firm does not aggressively seek to acquire knowledge, it is unlikely that knowledge acquisition will take place. Therefore, the firm has to be active in learning, as a passive approach would mean less knowledge will be acquired. Another element that determines the extent of knowledge acquired is R&D. R&D is an activity that leads firms to learn and acquire knowledge, as it provides hands-on experience to the firm. Knowledge will only diffuse to another firm when the firm has sufficient technical expertise. Thus, the firm's research activity would enhance its ability to learn (Cohen & Levinthal, 1990). In fact Cohen & Levinthal (1990) emphasize that a firm's R&D activity reflects its effort to learn and develop its absorptive capacity. R&D activities will not only encourage new knowledge, they will also boost the firm's absorptive capacity in the learning process. The level of R&D activities and the firm's incentives to learn and acquire knowledge can be indicated by the allocation of funds to these activities. The higher the spending on R&D, the more knowledge is expected to be acquired from the activity.

### **Learning Capacity and R&D**

As R&D contains activities that are full of knowledge and expertise, it becomes a platform for firms to facilitate learning and acquiring knowledge. R&D enables firms to recognise necessary information and utilise it accordingly by conducting their own activities. Therefore, R&D tends to function not only as a source of learning, but also as an applied training centre. Studies show that firms that conduct their own R&D can use external information better than firms that do not (Tilton 1971, Allen 1977, Mowery 1983). This indicates the importance of R&D as a learning mechanism. Having their own R&D enables firms to be directly involved in manufacturing operations. Firms that have direct manufacturing involvement recognise and exploit new information better than those that do not. This is because the production experience provides the firm with necessary background to recognise the value of and implement methods to reorganise a particular manufacturing process (Abernathy 1978, Rosenberg 1982).

Simultaneously with firms' prior related knowledge of the partner (Cohen & Levinthal 1990, Lyles & Salk 1996, Mowery et al. 1996), bureaucracy level within an alliance (Dodgson 1993, Lyles & Baird 1994, Lyles & Salk 1996, Brown & Duguid 1991, March 1991) and determination to obtain the new knowledge (Hamel 1991, Mansfield 1988, Cohen & Levinthal 1990, Inkpen 1998, Grant 1996), R&D provides vast opportunities for a firm to enhance its absorptive capacity and thus boost the learning and acquiring process of knowledge. Therefore, R&D was examined together with these three variables in this study.

Previous literature has not shown the relationship between knowledge acquisition and the local firm's involvement in R&D activities. Nonetheless, it is believed that the involvement of the local firm and the degree of

control that the local firm has on the R&D activities would increase the local firm's experience and thus increase the level of knowledge acquired. Previous studies revealed that the involvement of the receiver or learner in the learning process, such as R&D activities, would encourage greater knowledge acquisition (Lyles & Salk 1996, Huber 1991). Hence, this study attempts to discover an effect of local firms' direct involvement and control in R&D on the knowledge acquisition process.

The following hypotheses were designed to test the effect of R&D on knowledge acquisition:

- H1: The existence of R&D activities in the relationship will increase the knowledge acquired.
- H2: The greater the R&D expenditure, the greater the knowledge acquired.
- H3: The more local firms are involved in R&D activities, the higher the knowledge acquisition.
- H4: Local control of R&D activities will increase knowledge acquisition.

## Methods and Findings

### Research Design and Sampling

A survey was conducted in this study and a questionnaire was distributed to Malaysian manufacturing firms involved with foreign partners in their operations. The population of this study is high technology manufacturing firms that are currently engaged in international strategic alliances with foreign firms and operating in Malaysia.

Databases from the Malaysian Manufacturing Association, the Federation of Malaysian Manufacturing (FMM) and Malaysian industry-promoting agency, the Malaysian Industrial and Development Authority (MIDA) were taken as a sampling frame. 823 Malaysian firms were identified as having strategic alliances with foreign partners. Thus, census sampling was adopted. Personal interviews were conducted with a top management representative; either Managing Director or General Manager, for each alliance and appointment was made prior to the interview.

65 firms participated in this study. However, not all sample firms conducted their own R&D activities. 37 firms conducted their own R&D activities while another 28 firms either did not conduct R&D at all, or R&D was conducted only by the foreign partner in the home country and did not involve the local partner at all. Pearson correlation and censored regression were used to analyse the data with the aid of SPSS Version 11 and Limdep Version 7 software.

### Hypothesis Testing

TABLE 1: RESULT FOR T-TEST AND CORRELATION

Hypotheses	Group sample (Correlation between)	Mean value (N)	Test used	Sig	Reject/Not reject
H1	No R&D Has R&D	3.56 (28) 3.93 (37)	t-test t = -2.440	0.017	Reject H0 at 5%
H2	R&D expenditure and knowledge acquisition	N = 56	Pearson r = 0.104	0.222	Do not reject H0
H3	Locals involvement and knowledge acquisition	N = 37	Pearson r = 0.023	0.446	Do not reject H0
H4	Local Foreign	3.91 (14) 4.11 (7)	t-test t = -0.782	0.444	Do not reject H0

Table 1 summarises the findings for hypotheses 1, 2, 3 and 4. H1 tested the presence of R&D and its relationship to knowledge acquisition. T-test was used to test H1 and the result is statistically significant. This indicates that the presence of R&D is related to the knowledge acquisition experienced by the local firms. Having Research and Development (R&D) activities within the company is an advantage to the local firms as firms learn more from the foreign partner when this kind of activity is carried out.

H2 tested the relationship between R&D expenditure and knowledge acquisition. Pearson correlation was used to test this hypothesis. The result shows that the relationship between R&D expenditure and knowledge acquisition is not statistically significant. This indicates that R&D expenditure is not related to the knowledge

acquisition experienced by the local firm. Therefore, it is not clear that the amount spent by the firms on these activities will generate more knowledge acquired by the locals.

H3 tested the relationship between local involvement and the knowledge acquisition process and Pearson correlation was used to confirm the hypothesis. The result was insignificant. This indicates that the involvement of local employees in the R&D activities has no effect on the knowledge acquisition process. The involvement of the local firm in the R&D activities is believed to depend on the types of activities carried out and the extent to which locals were given opportunities to conduct the whole of these activities.

Finally, H4 tested the degree of control between local and foreign firms and its link to knowledge acquisition. The result is also statistically insignificant. This indicates that whoever controls the R&D activities, either local or foreign partner has no effect on the knowledge acquisition. Hence, it not possible at this level of analysis to generalise that R&D expenditures and local control will increase the level of knowledge acquired

In order to investigate the effect of R&D activities and expenditure on knowledge acquisition, further statistical analysis was carried out. As R&D was examined together with other learning capacity variables such as prior related knowledge, bureaucracy level and determination to learn, non-linear regression analysis was conducted. The non-linear regression technique used was a censored regression model, also known as a tobit model. Prior knowledge refers to knowledge that the local firm has before the relationship was established, this includes basic skills and technological development in the industry such as product markets and other technical activities. Bureaucratic level refers to the extent of bureaucracy and hierarchy in its structure and management approach. Determination to learn represents the intention of the firm to learn from the foreign partner where valuable competences can be acquired.

TABLE 2: RESULT FOR CENSORED REGRESSION

	Model 2	Model 4	Model 5	Model 6
Constant	1.037 ** (1.960)	1.058 * (1.748)	0.936 * (1.744)	0.878 (1.421)
Years				
Joint venture	0.321 ** (2.492)	0.327 ** (2.248)	0.350 *** (2.611)	0.340 ** (2.303)
Size of firms	0.170 ** (2.337)	0.187 ** (2.376)	0.168 ** (2.335)	0.181 ** (2.332)
Research & Development(R&D)	0.170 (1.280)		0.181 (1.371)	
R&D Expenditure		-0.391 (-0.357)		-0.278 (-0.257)
Learning capacity	0.646 *** (4.394)	0.660 *** (3.939)		
Prior knowledge			0.152 ** (2.007)	0.152* (1.878)
Bureaucratic level			0.250 *** (3.052)	0.244 *** (2.628)
Determination to learn			0.276 *** (2.827)	0.317 *** (2.881)
N	65	56	65	56
Log likelihood	-48.725	-43.988	-48.160	-43.314

Table 2 summarises the results of censored regression. It shows four models to examine the effect of R&D activities, R&D expenditure and learning capacity on knowledge acquired. Model 1 shows a relationship between years, joint venture, firm size, Research and Development (R&D) and learning capacity towards knowledge

acquired. Model 1 (Table 2) shows that Research and Development (R&D) is significantly associated with knowledge acquired, where a firm that conduct R&D activities tends to acquire more knowledge than a firm that does not. As R&D activities reveal the firm's effort to learn and develop its absorptive capacity, the activities not only act as a platform for the local firms to learn new knowledge and skills from the foreign partner, but they also boost the firms' absorptive capacity in the learning process. Joint venture, size of firm and learning capacity showed a significant contribution to the knowledge acquisition. Joint ventures lead to more knowledge acquisition by Malaysian partners than contractual agreements. In terms of firm size, the level of knowledge acquired is more obvious in large firms compared to small firms. This means that large firms have an extra advantage in acquiring knowledge compared to small firms. In terms of learning capacity, the result showed that the higher the capacity that the firm has, the more knowledge could be acquired.

In Model 2 (Table 2), the simple R&D dummy variable is replaced by R&D expenditure. Unlike R&D activities in Model 1, Model 2 shows that R&D expenditure has no effect in acquiring knowledge from the foreign partner. R&D expenditure refers to the allocation of fund to the activities. The result indicates that the knowledge acquired by the local firm was not influenced by how much the firm spent on the R&D activities. A firm might spend a large amount of money on R&D activities, but this is not a guarantee that much knowledge will be acquired. How the R&D activities were conducted between the foreign and local partner is more important. Some firms might have to spend a large amount of money on equipment and materials, depending on the industry. However, if a smaller amount of money is spent on human factors, the return of investment cannot be seen in terms of knowledge. Investing in equipment and materials will not involve much knowledge transfer, as it is limited to the knowledge of handling the machinery to produce finished goods. Knowledge of learning how to develop innovative products is more significant and essential for firms to acquire. The prospect for knowledge acquisition is less favourable when maintenance and repair activities depend on the foreign firm. The reason is that some local firms are not willing to train employees abroad to obtain the technical knowledge about the capital equipment, as it is quite costly for the organization. As a result, dependence on the foreign partner becomes greater. This situation would further limit the knowledge that could be acquired by the local firm. Hence, the large amount of money spent is not rewarded in terms of knowledge, which is an intangible asset; instead, the money is rewarded in terms of equipment, which is a tangible asset. Model 2 also shows that joint venture, size of the firm and learning capacity has significant effect on knowledge acquired. Joint venture firms and large firms tend to acquire more knowledge compared to contractual relationships and small firms. Learning capacity also showed a positive relationship with knowledge acquisition.

Model 3 and Model 4 (Table 2) show a relationship between R&D activities, R&D expenditures, joint venture, size of firm, and learning capacity elements - prior knowledge, bureaucracy level and determination to learn towards knowledge acquired. Model 3 differs from Model 4 in that the former includes R&D activity, while in the latter; this is substituted with R&D expenditure. Joint venture, size of firm and all the learning capacity elements showed a significant positive effect on knowledge acquisition. Joint venture relationships and large firms would generate more knowledge to be acquired compared to contractual relationships and small firms. The results also indicate that firms that have prior knowledge, flexible management, and high determination to learn from the foreign partner tend to acquire more knowledge from the relationship. The higher the prior knowledge of the locals firms, the more flexible is the management, and the higher the determination of the local employees to learn, the greater the knowledge that could be acquired by local firms.

From the above results, it can be concluded that as learning capacity has a significant positive effect on the knowledge acquired from the foreign partner, R&D activities play a vital role in this effect. Firms that conduct more R&D activities are likely to have a greater learning capacity and are likely to acquire more knowledge, whereas firms that do not have R&D activities are less likely to learn and acquire knowledge from the foreign partner. This implies that R&D activities, together with prior knowledge of the technologies or products, a flexible management in terms of alliance relationship, and determination to learn from the foreign partner, are the factors that encourage acquisition of knowledge from the foreign partner.

## **Discussion, Limitations and Conclusions**

### **Discussion**

This study found that R&D activities could enhance the scope of learning and could facilitate the process of acquiring knowledge from the partner. The existence of R&D activities could boost the firm's learning capability, together with other elements such as the firm's prior related knowledge, bureaucracy level and determination to learn. However, the finding revealed that the international strategic alliances established are not extensively occupied by knowledge generating activities such as R&D. The small number of R&D activities conducted in these relationships reveals that firms place a low value on R&D activities. This might be due to several obstructions that restrain local firms from aggressively engaging in these activities. The findings show that there are three major obstructions that prevent Malaysian firms from participating in R&D activities. The first is the nature of R&D itself, which entails a high investment cost. This is a major obstruction, as most local firms lack capital investment. When local firms perform manufacturing activities which also require high capital investment, especially for manufacturing equipment, they do not have sufficient capital to invest in R&D activities. Thus, R&D activities receive less priority. The second obstruction that inhibits aggressive effort by local firms to engage in R&D activities is the lack of human capital. The scarce supply of qualified local employees to carry out technical activities in particular, has delayed the process of knowledge acquisition among partnering firms. The reliance predominantly on expatriates in R&D activities has caused other adverse effects, as it not only increases administrative costs, due to their higher salaries and fringe benefits, but also defers the learning process within the strategic alliance relationships. The final obstruction that the study revealed is a lack of support from the government itself. Local firms claimed that the government authorities are not very supportive in providing necessary facilities for them to carry out R&D activities. Assistance such as funding is considered vital for local firms to grow, as lack of it is their major constraint at the moment.

This study also shows that though Research and Development (R&D) activities are imperative to encourage learning and knowledge acquisition process among the partner firms, R&D expenditure did not depict the same pattern. The amount that a firm spent on R&D activities did not represent the extensiveness of knowledge acquisition activities. Therefore, the amount spent for R&D activities does not necessarily contribute to enhance learning and knowledge acquisition. Though this result seemed to be contrary to the theory of R&D, it might be explained by the prevailing Malaysian environment.

### **Limitation and Future Studies**

The role of R&D activities in acquiring knowledge from a foreign partner is encouraging. However, the small number of international strategic alliances that have R&D activities limits further understanding of the relationship between R&D activities and knowledge acquisition. A small sample size also limits our further analysis on R&D activities. This study may also be biased towards better performing firms, as their management might be expected to be more willing to share information with the researcher. It should also be borne in mind that the findings derived from correlation do not establish any causation, but merely explain the existence of a relationship. Further study on international strategic alliances based on R&D cooperation would be interesting to explore, as it could increase an understanding on R&D and strategic alliance structure.

### **Conclusion**

This study focuses on international strategic alliances, which are widely adopted by firms at present in order to sustain their competitiveness in the market. Although international strategic alliance has been a strategic mechanism for firms, an understanding of this mechanism, and especially its impact on learning and knowledge acquisition is, however, rather inadequate. R&D is considered as one of the activities that is rich with new knowledge and expertise. Thus, by engaging in such these activities, firms are expected to learn and acquire more knowledge from their partners. Nonetheless, this process is not that straightforward in Malaysia. Though R&D activities are significant to the knowledge acquisition process, these activities are not widely conducted among strategic alliance firms, due to several constraints that they endure. Consequently, these constraints adversely affect the knowledge

acquisition process. Hence, the objective of learning and acquiring knowledge from the foreign partners might not be possible to accomplish.

### **References**

Contact the Author for a list of references

# Link of Performance Appraisal to Compensation: A Case of Slovak Republic

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## Abstract

The presented article seeks to find the degree of link between assessment of employee performance and compensation in the Slovak companies. The findings of the article are based on an analysis of a questionnaire sent to human resource management executives or the top human resource position. The study is based on the responses of 40 organizations operating within Slovakia. The companies involved in the study cumulatively employ over 26000 people and represent a wide specter of industries, 68% of the sample were the companies with majority of foreign capital in their capital structure. The aim of the research was to examine the degree of performance related compensation within the surveyed companies. The article examines the differences between practices and procedures of Slovak companies and foreign owned companies. Moreover, it focuses on the degree of performance-driven pay related to a position of managers within the organizational structure.

## Introduction

Over the past decades, there has been an immense attention of both researchers and practitioners given to performance appraisal. Recently, we have, however, seen a shift in attention – from performance appraisal as a technique that needs to be valid, reliable, legal and accepted by both appraisers and appraised to performance appraisal as a tool that can link other human resource management activities and enhance organizational citizenship behavior among the employees.

In today's work environment, the key managerial issues are grouped around efficiency, performance, compensation and employee motivation and satisfaction. With concepts of teamwork and empowerment and by recognizing excellent performance, organizations seem to be shifting ever more responsibility onto the individual employees. Performance management is a set of activities that is aimed at the best possible utilization of performance appraisal. The best utilization of performance appraisal is achieved when the information gained from performance appraisal can be used for subsequent decisions in other human resource management activities such as compensation, training and career development. While performance management provides the synergy of linking different human resource management practices, pay for performance is a direct tool that can enforce motivation and attitudes of employees. Pay for performance represents the evaluative function of performance appraisal and thus can enforce the acceptance of performance appraisal feedback by the employees.

If designed and executed properly, performance appraisal can serve several purposes in an organizational setting:

1. Source of formal communication
2. Source of employee motivation
3. Source of organizational consistency and procedural justice

### **Performance Appraisal as a Source of Formal Communication**

Performance appraisal is a source of formal communication in several cases. First, and the most important, it communicates to employees the standard, quality and/or quantity of work performed on the job. As the key aspects of performance are typically evaluated in performance appraisal, the employee should understand what is the expected satisfactory behavior and performance.

Second, when delivering results of appraisal to the appraised employees, both the form of performance appraisal method and the style of feedback provided by the manager is an important source of formal communication within the organization. Methods that require interactive feedback, such as management by objectives, create space for clarification and potential improvement of the evaluated employee more than methods of

one-way evaluation e.g. in ranking or forced distribution. During the evaluation session when the manager provides feedback to the employee, both style of communication and topics covered are important signals to the employees.

#### **Performance Appraisal as a Source of Employee Motivation**

Performance appraisal can play an important role in almost any theory of motivation. It can enhance the intrinsic motivation of people because feedback on performance puts value and importance on the job done. It signals to the employees that the organization cares about the work they are performing, thus increasing the status of the job and the jobholder. Performance appraisal can also enhance extrinsic motivation, as it can be linked to both financial rewards and non-financial incentives. However, there are at least three main theories of motivation that directly reflect performance appraisal: Equity Theory, Reinforcement Theory, and Goal-Setting Theory. According to the Equity Theory, employees compare themselves with their reference employees; specifically they compare their performance and the subsequent reward with performance and reward of the reference person. Based on the outcome of such comparison the employees can perceive equity or inequity. In case of perceived inequity, the person's motivation decreases. Although these comparisons are always subjective and may contradict reality, they influence the person's motivation and performance. Performance appraisal can enable the individuals to make more reliable and more objective comparisons with their reference colleagues. In case performance appraisal is used as a basis for variable part of pay, the basis for comparison is even more straightforward and the sense of unfair inequity is diminished.

Reinforcement Theory looks at motivation from a viewpoint of a manager, not the managed employee. The main proposition of the theory is that there are two sets of behaviors – desired and undesired. Managers can then punish or ignore the undesired ones and reward or not punish the desired ones. By rewarding the desired behaviors, attitudes and performance, the managers reinforce the required quality and quantity of work. The employees feel motivated, as their effort is recognized and compensated. They, thus, have an incentive to perform at high level.

Goal-setting Theory says that people are motivated to achieve goals, however, they need to perceive the goals as acceptable and they need to put value on the possible reward that follows successful accomplishment of the goals. The acceptance and commitment to goal is as important as the desire for the reward. For managers, there is an important question concerning the difficulty of the assigned goal. Goals need to be specific and difficult goals lead to better performance than easy goals. Goal setting is most effective when there is feedback showing progress towards goal [3]. This requires feedback to be provided to the employees and also to make a follow-up in a form of reward.

#### **Performance Appraisal as a Source of Organizational Consistency and Procedural Justice**

Performance appraisal is a tool that can enhance a sense of procedural justice among the employees. As a procedure, it can enhance the sense of justice and trust among employees towards the organization. However, performance needs to be assessed regularly and the feedback has to be accepted by the employees. Moreover, the employed performance appraisal technique has to reflect the assessed job and person and there has to be a follow-up after the assessment. If employees believe that performance appraisal is done consistently and that the information gained from appraisal is used for decisions about compensation, training, development and/or termination of employment, then it is likely to create procedural justice. Moreover, a pay-for-performance system is perceived as fair if it is consistently applied to all employees, employee participation is included, employees can appeal and the data used are accurate [6].

The importance of performance appraisal as a sole managerial tool is significantly enhanced when it is connected to other human resource activities, namely compensation, career development, and training. Linking performance appraisal and compensation reflects the evaluative part of performance appraisal. There is also a developmental part of performance appraisal, which focuses on improvement of employees, on identification of strengths and weaknesses of the assessed employee. As argued by Boswell and Boudreau [1], these two functions need to be linked together, because the evaluative form enhances the success of the developmental. In other words, if there is a need to improve performance, the manager can influence extrinsic rewards that follow appraisal and the employees will recognize the need to improve. The employees will believe that the potential improvement in skills or abilities will positively influence the results of future appraisal and thus positively influence either financial rewards or career movements.

Pay for performance is commonly known as paying employees while considering their job performance. In

other words, better performers should be recognized and rewarded more significantly and poor performers should be awarded less. Deciding what is good or bad performance is the matter of setting standards and desired behaviors. These should be consistent with the organizational objectives, as this is likely to improve the overall performance of the organization.

As argued, there is a need to link performance appraisal to other human resource activities. The most crucial remains the link to variable pay; however employee development and training need to complement the usage of performance appraisal information to enhance the connection between evaluative and developmental functions of performance appraisal.

The aim of this paper is to describe the usage of performance appraisal for decisions about compensation on a case of the Slovak Republic. The main aim is to explore the link between performance appraisal and other human resource management activities, namely pay for performance and development. The paper also analyses whether position of an employee within the organizational hierarchy influences the decisions about variable pay and to what degree is variable pay linked to the individual's performance. Therefore we have formulated the following research questions:

- a) Is pay driven by performance?
- b) Is there a preference in usage of merit pay over merit increase?
- c) To what degree does variable pay depend on individual and corporate performance?

#### **Methodology of the Research**

Considering the above stated aim of this paper, a research has been conducted in March and April 2004. It consisted of a written questionnaire, which was distributed to randomly selected organizations operating within the Slovak Republic. There was only one questionnaire per organization sent. Respondents were in the most cases human resource managers; in cases of small organizations, general managers were asked to answer the questions. The questionnaire incorporated closed and multiple choice questions which were considered relevant to the subject under study, namely questions regarding performance appraisal practices in general as well as questions focusing on pay for performance.

#### **The Sample**

Altogether 40 organizations employing over 26,000 employees filled out and returned the questionnaire. Companies from all relevant business segments were proportionately included in the obtained sample, including Manufacturing, IT & Telecommunications, Pharmaceutical, Retail & Wholesale, and Financial Services. Nearly 68% of organizations making up the sample were organizations with majority of foreign capital in their capital structure, most of which came from EU countries. Regarding the size of the organizations, the sample consisted of small, medium-sized, as well as large organizations. Ranges for distinguishing the categories were set as follows: a) less than 150 employees, b) 150 to 500 employees, and c) more than 500 employees. Only three of all the organizations were state-owned at the time of the research, thus no generalization could be made with respect to state ownership.

#### **Findings**

Out of the 40 companies that participated in the research, 39 have confirmed the existence and use of formal guidelines for assessing performance of their employees. This represents 98% of all participating companies and demonstrates the importance and significance of performance appraisal to companies operating in the Slovak Republic. The fact, that 11 of these 39 companies (28%) confirmed the intention of changing the current performance appraisal system, indicates that there is still room for improvement and that more changes are likely to come in the nearest future regarding the usage of performance appraisal in Slovakia.

#### **A) Is Pay Driven by Performance?**

Our research confirms findings of other studies that performance assessment is a common managerial tool in companies in the Slovak Republic [5], [7]. This study further inquires whether the system of performance appraisal has been adopted from the parent companies. The reason for this interest is that transfer of know-how and western management processes are commonly stated as one of the advantages of foreign investments for transition countries. We wanted to know whether this was true also for performance appraisal practices as these are an essential element of an effective pay for performance compensation system. The outcomes of the research show that two thirds of the foreign companies\* that participated in the research have adopted the parent company's performance assessment system. Only 22% of these companies were not allowed to change the adopted system, the rest could adapt the

system to the local conditions and requirements. This can be considered as beneficial for the business environment in Slovakia, as the majority of foreign companies transfers their management practices but at the same time allows the system being adapted to the local requirements and conditions. Consistently with the so called “best practice approach”, we believe the performance appraisal and pay for performance practices transferred from the foreign headquarters are more effective and elaborated than the ones that were used in the territory of Slovakia over the previous decades.

Performance appraisal can serve various purposes and functions. The purpose pursued should in the best case determine the techniques, raters, and the timing of the assessment. According to our findings, 92% of organizations that have a formal performance appraisal system appraise the performance for pay administration purposes. When differentiating between Slovak and foreign companies, it turns out that all of the foreign companies pursue this purpose while only 75% of Slovak companies do.

Linking the variable pay to the results of regular performance appraisal enhances the meaningfulness of performance assessment and formal communication within an organization. If applied consistently, it also serves as a tool to alter perception of procedural justice among the employees. The outcomes of our research reveal that while there are companies that appraise performance for pay administration purposes, the employees are not really paid based on their performance. The question that arises in this case is why they actually make the effort to measure performance of employees when the outcome is not considered in the final reward? The opposite situation was also observed in one case. The company rewards its employees for their performance; however, it does not conduct performance assessment according to some formal rules or guidelines. One might oppose, that informal assessment techniques could have been used in this case, however, it is very likely that such techniques will not serve as a source of procedural justice and will not be perceived as fair by employees. In the worst case, it could lead to a perception of inequity and followed by undesired employee behavior. Summing up, of the 40 organizations that took part on the research, 34 (85%) operate an appraisal-driven compensation system; i.e. they conduct performance appraisal with the purpose of gaining information about employee performance, and afterwards this information is used to allocate rewards. Based on the fact that 93% of foreign companies and 69% of Slovak organizations employ an appraisal-driven compensation system, we can state that foreign organizations tend to employ such systems to a greater extent than Slovak companies do.

#### **B) Is there a Preference in Usage of Merit Pay over Merit Increase?**

It can be concluded that there is a link between performance appraisal and compensation in both Slovak and foreign companies operating in the territory of the Slovak Republic. Our further research questions concern the way and extent to which the actual performance appraisal outcomes affect the pay. In the following section of this paper, we present an analysis of such companies that do have an appraisal driven compensation system. Table 1 summarizes the different ways in which performance appraisal outcomes affect pay in Slovak and foreign companies. The figures are presented with respect to the particular management levels, as some differences can be observed at different levels. The column labeled "Total" presents the overall occurrence of the link between performance appraisal and compensation in managerial positions.

TABLE 1: HOW DO PERFORMANCE APPRAISAL OUTCOMES AFFECT PAY?

	Line Management		Middle Management		Top Management		Total	
	<i>Slovak</i>		<i>Slovak</i>		<i>Slovak</i>		<i>Slovak</i>	
	<i>Foreign</i>		<i>Foreign</i>		<i>Foreign</i>		<i>Foreign</i>	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Pay increase decisions – merit pay	<b>18</b>	<b>53%</b>	<b>19</b>	<b>56%</b>	<b>15</b>	<b>44%</b>	<b>19</b>	<b>56%</b>
	3	33%	4	44%	3	33%	4	44%
	15	60%	15	60%	12	48%	15	60%
Decisions about variable part of pay – merit awards	<b>26</b>	<b>76%</b>	<b>24</b>	<b>71%</b>	<b>21</b>	<b>62%</b>	<b>28</b>	<b>82%</b>
	8	89%	7	78%	5	56%	9	100%
	18	72%	17	68%	16	64%	19	76%
Promotion decisions	<b>13</b>	<b>38%</b>	<b>13</b>	<b>38%</b>	<b>8</b>	<b>24%</b>	<b>13</b>	<b>38%</b>
	2	22%	2	22%	0	0%	2	22%
	11	44%	11	44%	8	32%	11	44%

As can be seen in the Table 1, performance appraisal outcomes affect the variable part of pay rather than the decision about pay increases or promotions. This is true for both Slovak and foreign companies and for all management levels. When talking about variable part of pay, we mean merit awards, i.e. bonuses, lump-sum payments, commissions, or piece-rate payments. Merit awards reflect the appraisal outcomes in 82% of the companies while pay increase decisions are made on the basis of performance assessment only in 56% of the organizations. Some differences can be observed when differentiating between Slovak and foreign organizations. For example, it is more common in Slovak companies than in foreign ones, that appraisal outcome affect merit awards, 100% of cases and 76% of cases respectively. In contrast, the influence on merit pay, i.e. increases of the base pay, is more common in foreign companies than in Slovak organizations (60% and 44% respectively). These trends can be observed at all management levels, even though there is a declining tendency to use either merit awards or merit pay with the increasing position within the organizational hierarchy.

For performance management to be efficient and effective there is a need to link the results of assessment to various human resource management activities – career moves, compensation and training are of the main focus. While career moves and promotions are usually not viewed as a component of the compensation system, they usually tend to be influenced by the individual's performance and from the employee standpoint, career advancement is considered to be a reward. The findings of our research (see Table 1) illustrate a weak and rather infrequent use of performance appraisal for decisions on promotion and career advancement. The usage is more apparent in foreign companies (44%) than in Slovak companies (22%). This is consistent with findings of Weidlich [8] who on a sample of foreign companies states that career advancements are made on a basis of performance rather than seniority. The findings also support the results of Luptáková and Vargic [4] where the link between development and performance assessment is stronger in foreign companies than in companies with Slovak capital ownership.

When looking at the relative figures in Table 1, one can see a slightly decreasing trend with the movement toward higher management positions. It is rather intriguing to note that the link between individual performance and variable part of compensation is weakened with higher positions. This can be interpreted as a decreasing importance of performance appraisal outcomes for compensation purposes at higher management positions. This is especially true for Slovak companies and indicates that there have to be some other processes in place to determine the pay of top managers. It is difficult to determine, which these could be, since quantitative goals like overall company performance can easily be implemented into the formal performance appraisal process. The most common one found in theory is to reward top managers based on the overall performance of the organization. With the increased position within the corporate hierarchy, there is an increased need to link compensation with the responsibility for overall results rather than the individual efforts of a manager. This was confirmed by our analysis (see Table 3).

#### **C) To what Degree does Variable Pay depend on Individual and Corporate Performance?**

Since performance appraisal outcomes influence the variable part of pay the most, we took a closer look at the extent to what the outcomes actually influence the variable part of pay. The organizations were asked to state how much of the variable part of pay is actually affected by the individuals' performance. The findings are presented in Table 2. One note is necessary before looking at these findings, namely that the relative figures are presented as a percentage of all companies that have an appraisal driven compensation system and at the same time performance assessment outcomes affect the variable part of pay. In other words, only companies that are stated in the second line of Table 1 are used as the base for the analysis in the next paragraphs.

TABLE 2: INFLUENCE OF INDIVIDUALS' PERFORMANCE ON VARIABLE PART OF PAY

	Line Management		Middle Management		Top Management		Total	
	<i>Slovak</i>		<i>Slovak</i>		<i>Slovak</i>		<i>Slovak</i>	
	<i>Foreign</i>		<i>Foreign</i>		<i>Foreign</i>		<i>Foreign</i>	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
0% to 33% of variable part of pay	<b>8</b>	<b>31%</b>	<b>5</b>	<b>21%</b>	<b>2</b>	<b>10%</b>	<b>8</b>	<b>29%</b>
	4	50%	2	29%	0	0%	4	44%
	4	22%	3	18%	2	13%	4	21%
34% to 66% of variable part of pay	<b>4</b>	<b>15%</b>	<b>5</b>	<b>21%</b>	<b>6</b>	<b>29%</b>	<b>7</b>	<b>25%</b>
	1	13%	2	29%	1	20%	2	22%
	3	17%	3	18%	5	31%	5	26%
More than 66% of variable part of pay	<b>10</b>	<b>38%</b>	<b>10</b>	<b>42%</b>	<b>8</b>	<b>38%</b>	<b>13</b>	<b>46%</b>
	2	25%	2	29%	2	40%	3	33%
	8	44%	8	47%	6	38%	10	53%

It is evident that individual performance plays a great role in the most cases. However, there are some differences between Slovak and foreign organizations. For example, it turns out that in Slovak organizations individual performance affects a smaller portion of the variable part of pay than it does in foreign organizations. While in 53% of foreign companies individual performance affects a significant part of variable pay (third line of Table 2), it is only 33% of Slovak companies where this is true. On the other hand, while in 44% of Slovak organizations a rather insignificant portion of variable pay (the first line of Table 2) is affected by individual performance; it is only 21% of the foreign companies where this is true.

However, in both Slovak and foreign companies, we can observe the highest proportion of variable pay influenced by the performance of the employee among top management positions. In both Slovak and foreign companies we see a tendency to increase a proportion of variable pay with the increasing position within an organizational hierarchy.

As mentioned above, the actual performance of an individual is not the only factor that determines his or her variable pay. It is known that companies sometimes tie the variable part of pay to the performance of the whole organization. Organizations that took part on the research were asked to state how much of the variable pay is influenced by the overall company performance. By 'company performance' we understand performance in monetary terms, i.e. profit or loss. The outcomes are presented in Table 3. Similar to Table 2, only companies that have an appraisal driven compensation system and where performance assessment outcomes affect the variable part of pay are used as the basis when calculating the relative figures.

TABLE 3: INFLUENCE OF COMPANY'S PERFORMANCE ON VARIABLE PART OF PAY

	Line Management		Middle Management		Top Management		Total	
	<i>Slovak</i>		<i>Slovak</i>		<i>Slovak</i>		<i>Slovak</i>	
	<i>Foreign</i>		<i>Foreign</i>		<i>Foreign</i>		<i>Foreign</i>	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
0% to 33%	<b>14</b>	<b>54%</b>	<b>9</b>	<b>38%</b>	<b>6</b>	<b>29%</b>	<b>15</b>	<b>54%</b>
	4	50%	3	43%	1	20%	4	44%
	10	56%	6	35%	5	31%	11	58%
34% to 66%	<b>4</b>	<b>15%</b>	<b>7</b>	<b>29%</b>	<b>3</b>	<b>14%</b>	<b>8</b>	<b>29%</b>
	2	25%	3	43%	2	40%	4	44%
	2	11%	4	24%	1	6%	4	21%
more than 67%	<b>1</b>	<b>4%</b>	<b>0</b>	<b>0%</b>	<b>5</b>	<b>24%</b>	<b>6</b>	<b>21%</b>
	1	13%	0	0%	1	20%	2	22%
	0	0%	0	0%	4	25%	4	21%

Looking at the figures presented in Table 3, it is obvious that the overall company performance affects rather small portions of variable pay. This is true for both Slovak and foreign organizations. Also true for both Slovak and foreign companies is a trend that can be observed. With the movement toward higher management positions more significant portions of variable pay are affected by the overall company performance. This finding only supports the theory, which says that at top management levels compensation is more tied to the performance of the whole organization.

## Conclusions and Discussion

Based on our findings, it can be concluded that the companies operating within the territory of the Slovak Republic consider performance appraisal an important tool and the outcomes of the appraisal use for decision about compensation of their employees in managerial positions. Still, the practice is more commonly used in foreign companies than in Slovak companies. Majority of the foreign companies transfers their management practices from their mother companies, but many of them are allowed to adapt the system to the local requirements and needs.

Of the 40 organizations that took part on the research 85% operate an appraisal-driven compensation system; i.e. they conduct performance appraisal with the purpose of gaining information about employee performance, and afterwards this information is used to allocate rewards. However, this practice is more common among foreign companies (in 93% of cases). For a comparison, 69% of Slovak organizations employ an appraisal-driven compensation system.

On the other hand, Slovak companies prefer the usage of merit awards while merit pay is more popular among the foreign companies. These trends can be observed at all management levels, even though there is a declining tendency to use either merit awards or merit pay with the increasing position within the organizational hierarchy.

Both Slovak and foreign companies differentiate the degree to which the performance of a manager influences his/her variable pay. With an increase in position within the organization we can observe an increase in proportion of variable pay influenced by the performance of the manager and of the organization.

While performance driven pay can be considered a common practice among organizations operating within the Slovak Republic, companies could utilize the potential of performance appraisal more, if they linked a more significant part of pay to the individual and organizational performance.

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### **End Notes**

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\* Authors' note: for the purposes of this paper, foreign organizations are organizations that have a majority of foreign capital in their capital structure.

# **Managerial Decision Making Style in Slovak Organizations: Shift from Administering Orders to Employee Empowerment**

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## **Abstract**

The article seeks to find whether the managerial decision making, in the transformational economy of Slovakia, has experienced a shift from an administrative to an interactive nature. In addition, it examines how the Slovak managers approach decision-making and whether the concepts of delegation and empowerment have been implemented into the scope of their managerial skills. Furthermore, it carries out a comparison of decision-making style in subsidiaries of multinational companies and local organizations in Slovakia. The findings of the article are based on a research that examines a sample of 512 respondents from 35 organizations, which cumulatively employ 11,765 people.

## **Introduction**

Organizational decision-making is a process through which members of an organization choose a specific course of action to respond to both the problems and the opportunities that confront them in relation to various organizational subjects: people, materials or information. From the managerial perspective, decision-making represents one of the crucial elements of managerial work and defines one of the most essential managerial skills. Additionally, the managers' approach to the decision making process reveals their notion of preferred leadership style as well as the level of empowerment and sharing of responsibility in an organization. Moreover, the level of subordinates' involvement and their input into the process of decision making has major implications for a number of other areas of managerial work, such as motivation, control, performance management or organizational communication.

The region of Central Europe has in the last decade undergone major social, political and economic changes that have gradually led to the transformation of attitudes and the development of 'new' skills in the local managerial work force. In 1989, there was a significant change of the political system in Slovakia that was followed by a transition from a centrally planned to market economy. This transition caused a shift in the nature of business environment that has moved from being relatively stable and predictable towards a more competitive and frequently changing system. The employment mode has shifted from egalitarian towards a tournament – there has been growth in usage of pay-for-performance compensation models where seniority matters less than ability to perform along with decline of average age of managers, and more mobility between jobs<sup>[1]</sup>. Moreover, in order to be able to implement successfully new strategies and to transform local enterprises, it is necessary to change their corporate cultures from a 'socialistic-bureaucratic' type to a business oriented one<sup>[2]</sup>.

Without a doubt, one of the areas of managerial work that has experienced the most dramatic shift has been decision making. It has mainly been multinational companies entering the central European markets and introducing different managerial practices that have influenced the gradual change of the business environment, including the skills and attitudes of the local workforce. Local companies, in order to stay competitive, have had to introduce different styles of management and change the attitudes and skills of their managers. A shift from strict centralization, wherein very little opportunity for independent decision making and the administrative role of managers in executing decisions, to a more participative decision-making and subordinate empowerment has been evident.

Such a shift has called for more flexibility of managers and workers, for market orientation in designing human resource management (HRM) activities, and for redefining the role of HRM as a strategic partner within the managerial activities in the companies. Within the redefined HRM system, quality of decision-making is certainly one of the key success indicators. In the past decade, it has been mainly foreign multinational companies entering the Slovak market, which have been introducing different managerial practices and influencing the changes in the

business environment. Slovak companies, in order to stay competitive, have had to introduce different style of management and change the attitudes and skills of their managers. Hence, the main goals of this article are to a) find whether the managerial decision making, in the transformational economy of Slovakia, has experienced a shift from an administrative to an interactive nature; b) examine how the Slovak managers approach decision making and c) carry out a comparison of decision making style in subsidiaries of multinational companies and local organizations in Slovakia.

### **Empowerment**

Empowerment is defined as the process by which managers help others to acquire and use power needed to make decision affecting themselves and their work<sup>[3]</sup>. In more general terms, it is a concept of allowing employees greater freedom, autonomy and self-control over their work, and responsibility for decision-making. However, there are differences in the meaning and interpretation of the term empowerment. For example, Buchanan and Huczynski refer to empowerment as the current term for decentralization<sup>[4]</sup>. Wilkinson suggests that it is important to see empowerment in a wider context<sup>[5]</sup>. It needs to be recognized that it has different forms and should be analyzed in the context of broader organizational practice.

Additionally, Lashley suggests it is possible to summarize four managerial initiatives and meanings which claim to be empowering<sup>[6]</sup>; a) empowerment through participation; b) empowerment through involvement; c) empowerment through commitment and d) empowerment through delaying. Lashley further concludes that the success of a particular initiative will be judged by extend to which the empowered employees feel personally effective, are able to determine outcomes and have a degree of control over significant aspects of their working life.

Furthermore, Stewart suggests that to support true empowerment there is a need for a new theory of management, which states that managers are more effective as facilitators than as leaders, and that they must devolve power, not just responsibility, to individuals as well as groups<sup>[7]</sup>. Morris, Willcocks and Knasel believe, however, that to empower people is a real part leadership as opposed to management and they give examples on the way empowerment can actually set people free to do jobs they are capable of<sup>[8]</sup>. Both make the point; however, that true empowerment is much more than conventional delegation.

The concept of empowerment also gives rise to the number of questions: For example how does it differ from employee involvement?, or is empowerment just a more fanciful term for delegation? Some see the two as quite separate concepts whilst others suggest empowerment is a more proactive form of delegation<sup>[9]</sup>. This paper takes the latter as the ground for statistical analysis of the data.

## **Questionnaire and Research Data**

Questionnaire, comprised of three parts, was created. The first section regarded the demographics of the respondents, asking their gender, position in the company (top, middle, low level management), type of ownership of the company (Slovak or with foreign capital investments); the number of employees in the company as well as the number of direct subordinates. The respondents were also asked to identify their age by choosing one of the following categories: less than 30 years of age, 31-45, and 45 and more. Additionally, they were asked to indicate their tenure with the organization: a) working with the company for up to one year; b) two to five years; c) six to twelve years or d) more than thirteen years.

The second part of the questionnaire consisted of 30 statements evaluated on a 1-5 Lickert scale, where '1' indicated the least acceptance of the statement and '5' indicated that the respondent fully agrees with the statement. There were various statements from different areas that evaluated the attitudes of managers towards their work, their managerial style, performance appraisal and communication style. For the purpose of this paper only questions related to decision making style and empowerment were analyzed.

The third part of the questionnaire consisted of questions where the respondents were asked to evaluate statements qualitatively, indicating all the responses that are relevant or those that are the closest to what they think about the statement. There was also space available for personal responses/comments. For the purpose of this paper, only those questions were analyzed that were relevant to the topic. In these questions, we have not received any individual open-ended responses, so there was no need for additional grouping and coding.

## Data Analysis

The findings of the article are based on research that examines a sample of 52 companies that operate within the territory of the Slovak Republic. There were a total number of 718 questionnaires sent with final count of returned filled out questionnaires amounting to 512 from 35 organizations. There were 432 respondents from Slovak companies and 79 from those with capital investments from abroad (in one case the respondent did not state, whether he/she worked for Slovak or foreign company). We have considered this sample sufficient to generalize the main trends in a particular HR practice within the business environment of Slovakia.

To achieve an objective view, we have addressed companies from all regions of Slovakia, companies of different sizes, and both Slovak and foreign in terms of capital investment [Note: further in this text companies with foreign capital investment are often referred to as 'foreign' for simplicity of terminology]. We have addressed managers at all levels of management. We have not addressed employees who are not in managerial positions and do not supervise any subordinates. Moreover, as the questionnaire was in Slovak language, foreigners working in the Slovak Republic were not included in the sample.

There were 115 (22.55%) top managers, 205 (40.2%) middle managers, and 190 (37.25%) line managers. The group consisted of 390 (76.32%) male respondents. Out of the sample, 64 (12.52%) were younger than 30, 190 (37.18%) were from the group 31 – 45 years of age, and 257 (50.3%) people were older than 45. Furthermore, 432 respondents were from companies of Slovak capital ownership 72 from those with capital investments from abroad, representing 13 foreign companies and 22 Slovak companies. The most frequent number of direct subordinates was four, indicating a rather narrow span of control. The extreme numbers of direct subordinates, however, ranged from 1 to 135. There were 511 respondents who identified their tenure, out of which 33 (6.46%) had worked less than one year for a company, 101 (19.77%) who had worked 2-5 years with the company, 123 (24.07%) who had worked 6-12 years with the company, and 254 (49.71%) who work longer than 13 years with the company. The enterprises actively involved in the research cumulatively employed 11,765 people.

In terms of the field of business the companies participating in the research; 4.1% (21 respondents) were from food and beverage production; 14.06% (72) from transport and transport related services; 3.32% (17) from consulting and knowledge services; 4.69% (29) from banking and insurance; 6.84% (35) from pharmaceuticals; 13.28% (68) from telecommunications; 6.45% (33) from the field of energy production and distribution; 12.70% (65) form heavy industrial production; 8.59% (44) from health care services; 4.1% (21) from information technologies; 17.58% (90) from chemical engineering and 4.3% (22) from retail.

### Cluster Analysis

Following the demographic analysis of the sample, questions related by content were grouped into six clusters. Subsequently, the clusters were paired and then using the Frequency Procedure, followed by the Chi-Square test and checking for Phi Coefficient the pairs of clusters were tested to see whether there are any relationships between the clusters that would further indicate strong tendency in managerial actions and thus confirm the relation between individual aspects of power distance. The analysis was carried out using SAS software.

All of the statements from the second part of the questionnaire and some of the responses from the third part of the questionnaire were included in the cluster analysis. The questions were grouped into 6 clusters: empowerment, delegation, communication and feedback, formality/informality, decision making and managerial style. For the purpose of this article, two pairs of clusters were analyzed: cluster pair # 1 empowerment/ delegation (questions from these clusters are presented in Table 1.) and cluster pair # 2 decision making/ managerial style (questions from these clusters are presented in Table 2.)

Questions 1, 2, 5 and 29 formed the cluster empowerment. To empower is to pass decision-making to others. Within an organization, this often means passing the decision-making to a lower level of the. Furthermore, empowerment is an aspect of organizational culture – it fosters initiative and responsibility. A manager, with a controlling role, is involved only when work is finished, yet he/she is perceived as open to help when needed.

TABLE 1. QUESTIONS FROM THE QUESTIONARIE IN THE CLUSTER PAIR #1

1. I consider my subordinates as independent.	1	2	3	4	5	cluster empower r
2. I leave routine decisions to my subordinates	1	2	3	4	5	
5. I think that subordinates should be always controlled.	1	2	3	4	5	
29. My superior lets me work independently and only controls the finished projects.	1	2	3	4	5	
3. I have difficulties to obtain inputs form my subordinates at the meetings.	1	2	3	4	5	cluster delegate
4. My subordinates expect to be told what exactly is to be done.	1	2	3	4	5	
11. My subordinates seek my advice without hesitation when they have a problem.	1	2	3	4	5	
14. Subordinates expect that problems are solved by a manager.	1	2	3	4	5	
18. In my opinion the subordinates should only fulfill tasks assigned by the manager.	1	2	3	4	5	
21. I consider the decisions of my superiors as final.	1	2	3	4	5	

Cluster *delegation* was formed out of statements that reflected the concept of assigning tasks; as this is a part of day-to-day work and stems from the formal authority of the respondent. This cluster reflected the attitude of the respondents both towards their subordinates and the assigned goals as well as their attitude towards receiving assignments from their superior. Furthermore, questions that dealt with the everyday practice of controlling tasks were included. Moreover, a set of questions regarding the formality of the style of managers towards their subordinates were added to this cluster. Additionally, as delegation also reflects initiative/passivity in the relationship between a manager and a subordinate, questions of this nature were included. This decision was based on the concept, that the more dynamic the relationship, the more manager believe that the decisions of their boss are negotiable and the more they are willing to let the subordinates work independently. Questions number 3, 4, 11, 14, 18 and 21 were included in this cluster.

TABLE 2. QUESTIONS FROM THE QUESTIONARIE IN THE CLUSTER PAIR # 2

6. I consider autocratic decision of higher quality than group decisions.	1	2	3	4	5	cluster decision -making
7. I consult my subordinates on work related issues.	1	2	3	4	5	
15. My superior seeks my advice when he/she needs to discuss a problem.	1	2	3	4	5	
17. I make decisions about important issues alone.	1	2	3	4	5	
9. The role of the manager is take care of his/her subordinates/	1	2	3	4	5	cluster mgg. style
10. For me as a manager the number one priority is fulfillment of the tasks.	1	2	3	4	5	
16. I am interested to know what my subordinates think of my approaches to work situations.	1	2	3	4	5	

The next set of clusters that was analyzed dealt with the way respondents approach decision making and their attitudes to the job they perform. Thus, the cluster *decision-making* dealt with the degree of consultative style in decision-making. This cluster focused on the degree to which managers consult and involve subordinates in the process; rather than focusing on judging the nature of these decisions. It also examined whether the respondents were being consulted by their superiors and whether they perceived themselves as being involved in the process of decision-making. Questions 6, 7, 15 and 17 were included in this cluster.

The cluster *managerial style* addressed the general perceptions of the respondents as to what was expected from them and what was the role of a manager in the context of responsibilities and duties. This cluster reflected the values of respondents that underline their overall leadership style. Furthermore, it provided valuable information on how the respondents viewed their relationship towards their superiors as well as subordinates and whether they were interested in learning how their subordinates perceived them. Questions 9, 10, 16, were included in this cluster along with questions from the third part of questionnaire asking the respondents how would they characterize the relationship with their superior/subordinate [the options give were a) friendly an open; b) professional but friendly; c) professional; d) formal and e) other].

Following, the clusters were paired for the purpose of statistical analysis. The first pair consisted of the clusters empowerment and delegation. These two clusters were paired in order to test the consistency in managerial

tendency to empower employees and the actual practice of delegating responsibility for decision on the subordinates. The second pair consisted of the clusters decision-making and managerial style. The main reason behind grouping these clusters was to search for interdependence in preference for a certain nature of managerial decision-making style (participative versus individual).

Before the actual analysis was performed, however, adaptations of certain data were necessary. First, since some questions that were included in the clusters were from the third part of the questionnaire [multiple choice questions], the responses had to be transformed to resemble the Likert type of answers. This was done for each question individually, assigning the value 1 through 5 for each of the multiple choice answers, resembling the tendency of the cluster.

Second, a Likert scale type of a value had to be assigned to each of the clusters. For individual questions, value '1' indicated disagreement whereas value '5' presented full agreement with a statement. Following the computation of responses, clusters were assigned values '1' (never) through '5' (always) according to the following key. If there were four questions in a cluster, then sum of answers in a range of value '4' - '5' was assigned value '1'; if there were six questions in a cluster, then sum of answers in range of values '6' – '8' was assigned value '1'; and so on (for an illustration, see Table 3).

TABLE 3. ASSIGNING VALUE TO CLUSTERS (EXAMPLE)

EMPOWERMENT (4 QUESTIONS)		EMPLOYEE DELEGATION (6 QUESTIONS)	
Sum of responses from Likert Scale	Assigned Cluster value	Sum of responses from Likert Scale	Assigned Cluster value
4-5	1	6-9	1
6-9	2	10-14	2
10-14	3	15-21	3
15-18	4	22-26	4
19 - 20	5	27-30	5

Finally, since each of the clusters contained a control statement, responses to which were logically inverted; in order to cluster the responses and maintain the same pattern in assigning the value, numerical values for the control questions was inverted as well; i.e. if the answer was '5', it was assigned value '1', if the answer was '4' the value assigned was '2', and so on. Following these adaptations, the statistical analysis on the whole data set was performed using the Frequency Procedure to see what the co-dependence between the clusters was. Subsequently, the obtained results were tested through Chi-Square test, the probability of which should be <0.05 to be considered significant; and Phi-Coefficient the value of which should be >0.5 to show significance (Table 4). In addition, data analysis was then performed across the demographic indicators to obtain more thorough picture of the cluster codependence.

TABLE 4. CHI-SQUARE AND PHI-COEFFICIENT VALUES FOR THE CLUSTERS #1 AND #2

CLUSTERS	CHI-SQUARE PROBABILITY	PHI COEFFICIENT VALUE
EMPOWERMENT/EMPLOYEE DELEGATION	<.0001	0.6377
DECISION MAKING / MANAGERIAL STYLE	<.0001	0.26

When comparing total data of the clusters *employee delegation* and *empowerment* a strong relationship between the values of '3' (usually) and '4' (almost always) was observed; 346 responses of value '3' in employee delegation have been divided between value '3' and '4' in empowerment, 166 and 180 respectively. This indicates a positive tendency of managers to delegate assignments and responsibilities to their subordinates and to empower and trust their employees. Furthermore, both Chi-Square probability and Phi-Coefficient value showed statistical significance. Overall, the responses suggest that while delegation and the attitude of managers towards their subordinates is neutral, Slovak managers tend to believe that their subordinates are independent, can be trusted with decisions (albeit routine) and generally, they both provide and receive quite large autonomy in their work. Yet, as

the responses group around the values of '3' (sometimes) and '4' (usually) we can observe a rather conservative attitude that is in line with the score of '52' on the power distance index.

When comparing the total data of the clusters *decision-making* and *managerial style* a statistical relationship is observed, when 333 responses of value '3' (usually) in decision-making have also chosen the answer value '3' in *managerial style*. Another 37 respondents have indicated value '4' (almost always) in *decision-making* and value '3' in *managerial style*. However, there was little statistically significant relationship between the style of management and preference towards decision-making. Although Chi-Square probability value shows significance, Phi Coefficient for the whole sample does not show noteworthy relationship. Following the analysis of the whole set of data, the responses were grouped across the demographic indicators and statistically important relationships were sought. Again, the most noteworthy results were found within the pair of clusters *empowerment* and *delegation* and a difference of significance was found when comparing companies of Slovak and foreign ownership against the cluster decision making/managerial style (Table 5).

A significant difference in responses of Slovak managers working for foreign companies and Slovak managers working for domestic companies was observed. In the case of Slovak managers working for foreign companies a strong co-dependence of the clusters was found whereas with Slovak managers in Slovak companies this was not the case. This indicates that there is stronger tendency for the prevalence of a certain pattern of managerial behavior across multinational companies than in Slovak companies.

Furthermore, a significant relationship was found across the hierarchy of the organizations. All three managerial groups (top, middle and line managers) showed a strong co-dependence in terms of delegation and empowerment. This is an important finding, because it points to a level of consistency across all organization in the sample and indicates a tendency of all managerial groups toward empowerment and delegation.

The relationship between the style of management and style of decision-making has been confirmed only on the sample of foreign companies in Slovakia with Phi Coefficient 0.7028. Most responses were grouped in the value of '3' indicating that the respondents believe their relationship with their subordinates is professional and friendly, they are interested in learning what their subordinates think of their actions, and they balance their understanding of needs of subordinates with achieving goals.

In summary, the statistical analysis performed via cluster analysis showed that managers in Slovakia are generally trusting towards their subordinates; they have a style of management that tends to involve subordinates in decision-making, to let them work independently and to appreciate the opinions of the employees. Furthermore, the notion of empowerment is commonly used in Slovak organizations.

## **Decision Making Style**

To obtain a further analysis of the view of the managers' approach to decision-making [and because of statistically insignificant results obtained by Chi-Square analysis], questions (Table 2) dealing with this aspect of managerial work were analyzed in more detail. The content of these questions was focused on deciphering the perception of managers on autocratic and group decisions, their approach in situations when making difficult decisions, and the tendency of managers to consult their subordinates as well as to be consulted by their superiors on work related issues. The mean scores for each of the questions were calculated. Furthermore, in order to get a more detailed picture, the responses were examined across demographic factors. The results of the analysis are presented in Table 6.

TABLE 5. SIGNIFICANT CHI-SQUARE AND PHI-COEFFICIENT VALUES ACROSS SELECTED DEMOGRAPHIC INDICATORS

<i>CLUSTER EMPOWERMENT/DELEGATION</i>		
<i>DEMOGRAPHIC INDICATORS</i>	<i>CHI-SQUARE PROBABILITY</i>	<i>PHI COEFFICIENT VALUE</i>
<b>Foreign Companies</b>	<.0001	0.9575
<b>Slovak Companies</b>	<.0001	0.3453
<b>Line Managers</b>	<.0001	0.6957
<b>Middle Managers</b>	<.0001	0.5042
<b>Top Managers</b>	<.0001	0.6865
<b>Under 30 years of age</b>	<.0001	0.9353
<b>Between 31 – 45 years of age</b>	<.0001	0.4334
<b>Over 45 years of age</b>	<.0001	0.3793
<i>CLUSTER DECISION-MAKING/MANAGERIAL STYLE</i>		
<i>DEMOGRAPHIC INDICATORS</i>	<i>CHI-SQUARE PROBABILITY</i>	<i>PHI COEFFICIENT VALUE</i>
<b>Foreign companies</b>	<.0001	0.7
<b>Slovak companies</b>	<.0019	0.1987

As can be seen from the outcomes of the analysis, managers in Slovakia rarely consider autocratic decisions as more qualitative than the group decisions. This is indicated by the mean score 2.36 for question number 6, suggesting that responses ‘never’ and ‘almost never’ were most frequently marked (this is further supported by the mode and median of this question set being 2). However, the responses ‘sometimes’ and ‘almost always’ prevailed when asking managers whether they make important decisions alone, as indicated by the mean score of 3.22 on question 17. This finding points to a certain level of discrepancy – similarly to the performance appraisal and leadership style - between the perception of managers on decision making (believing that group decisions are better than autocratic ones) and the actual practice (making more autocratic decisions on important issues than would be expected from their view on autocratic decisions). It further suggests that the awareness of managers on the advantages of group decisions is rather strong, but their actions are somewhat different. This difference in responses could be, however, influenced by managers’ definition of what is considered an important issue, as this was not specifically identified in the questionnaire and thus left to each manager’s subjective judgment.

Nevertheless, the mean scores for question 17 and question 6 on the total data group point to managers using a combination of participative and autocratic decisions. One can argue that the choice of the approach toward decision-making depends on a situation and that in more difficult situations; managers tend to behave more autocratically. This finding for Slovakia is partially in alignment with the research results found in other Central European countries and presented by the project GLOBE, where managers from Poland and the Czech Republic showed a certain level of combination of autocratic and participative decision making style. Moreover, it also reflects notion about countries of Central Europe presented by the research project GLOBE, where managers showed less negative attitudes towards autocratic leadership behavior<sup>[10]</sup>.

TABLE 6. DATA ANALYSIS OF QUESTIONS FOCUSING ON DECISION MAKING STYLE

		Q6	Q7	Q15	Q17
<b>COMPLETE SAMPLE</b>	Mean	2.36	3.83	4.07	3.22
	Mode	2	4	4	3
	Median	2	4	4	3
<b>GENDER (MEAN SCORES)</b>	Male	2.39	3.76	4.16	3.32
	Female	2.31	3.91	4.07	3.19
<b>POSITION OF THE RESPONDENT IN THE HIERARCHY (MEAN SCORES)</b>	Top management	2.24	3.79	n/a	3.18
	Middle management	2.29	3.77	4.17	3.23
	Line management	2.41	3.88	3.94	3.26
<b>AGE GROUP OF THE RESPONDENT (MEAN SCORES)</b>	under 30	2.30	3.72	4.05	3.21
	31-45	2.35	3.87	4.12	3.06
	45 and older	2.44	3.74	4.07	3.17
<b>TENURE OF THE RESPONDENT (MEAN SCORES)</b>	1 year	2.34	3.86	3.96	3.15
	2-5 years	2.38	3.80	4.02	3.19
	6-12 years	2.28	3.79	4.09	3.24
	13 and more	2.33	3.78	4.12	3.26
<b>FORM OF OWNERSHIP (MEAN SCORES)</b>	Slovak	2.40	3.78	3.99	3.41
	Foreign	2.27	4.03	4.12	3.02

The questions 7 and 15 sought the manager's attitude towards consulting their subordinates and them being consulted in turn by their superiors. The results of the analysis suggest that managers are slightly more often consulted by their superiors (mean score being 4.07 indicating the most frequent use of the answer 'almost always') than they consult their subordinates (the mean score being 3.83 indicating a combination of answers 'sometimes' and 'almost always' with the latter marked more often). The results suggest that the higher the position of a respondent in the hierarchy in the organization, more consultative approach is taken, since managers are being slightly more often consulted by their superiors than they consult their subordinates. However, both of the scores indicate that managers do consult and are consulted on work related issues; thus consultation is a rather frequent practice in the organizations presented in the sample.

When looking at the results across demographic indicators the most significant differences can be seen between the companies of Slovak capital ownership and multinational companies. Respondents from multinationals, in comparison to the managers from Slovak companies, consider autocratic decisions as lower in quality; consult their subordinates and are consulted by their superiors more often than their Slovak counterparts. The largest difference between managers from multinational companies and those of Slovak capital ownership, however, can be seen in the responses to the question regarding the autocratic decisions on important issues where managers from multinational companies show a stronger tendency towards the response 'sometimes' as oppose to their counterparts.

Analysis across other demographic data did not show differences of such a magnitude as in the case of multinational companies and those of Slovak capital ownership. However, there is interesting tendency across the managerial levels, where top managers do not consider autocratic decisions as of sufficient high quality; as opposed to the line managers. A similar tendency can be seen in the answers to question 17, where top managers' responses indicated lesser tendency to make autocratic decisions than in the case of middle or line managers. This notion indicates again, that the higher the positions within the hierarchy, the more likely managers are to make consultative decisions.. Another interesting notion can be seen across the demographic factor of gender, where females tend to make autocratic decision less than male counterparts, they consult their subordinates more but are consulted by their superiors to a lesser extent. Furthermore, employees with lower tenure tend be less autocratic, but are also consulted the least by their superiors. These findings are interesting from other aspects of managerial work, for instance gender issues in Slovak organizations, where there is still a dual attitude of female managers, differentiating between everyday, more informal situations in which they are cooperative and open to their subordinates and the formal settings during which they tend to assume the 'masculine' role of a strict, goal-oriented manager<sup>[11]</sup>.

## Conclusion

In conclusion, the results of the decision making style showed, that there is a strong tendency towards the consultative approach to decision making in Slovakia. On the other hand, they also revealed a tendency to make autocratic decisions in certain situations. Furthermore, the results exposed differences in terms of decision-making practices between multinational companies and those of Slovak capital ownership, with an autocratic style prevailing in the latter. This finding is in alignment with the results presented in other research project of the author on performance appraisal practices, where the tendency in multinational companies was also stronger towards dialogue-based practices, whereas in Slovak companies the tendency was towards more authoritative approach<sup>[12]</sup>. Since all of the respondents were of Slovak nationality, these differences further emphasize a strong influence of multinationals on perceptions of their employees on various managerial practices. Additionally, the fact, that there is a certain level of autocratic decision making in Slovak organizations is in alignment with findings from other Central European countries<sup>[13]</sup>. Nevertheless, the findings on decision making in Slovakia portray a strong tendency for participative decision making and more open approach of superiors towards consulting their subordinates combined with certain level of authoritative decision-making.

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# **Measurement of Performance in the Rubber Industry: A Comparative Study in the Czech Republic, India and the United States of America**

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## **Abstract**

**The goal of this study is to analyse possibilities for the measurement of companies' performance and to identify factors influencing the companies' performance in the rubber industry on the basis of comparing companies in different geographical regions – the Czech Republic, India and the U.S.A. Some differences in the rubber companies' performance in the investigated regions have been correlated to economic development, technological level and financial ratios reflecting the management and financial health of the companies.**

## **Introduction**

The rubber industry has developed in a dynamic manner since the mid-nineties in the world in general. There are host of factors for such development. Increased manufacture of transport and electrical equipment, namely in the third world countries, is an important reason for such development. Moreover the possibilities of application of rubber products increased manifold in manufacturing, energetics, agriculture, construction, household appliances, etc. The rubber processing industry has a wide variety of raw materials, processes, and final products. In developed economies fully automated production facilities are predominant and assure a certain independence from labour costs. In developing economies lower initial investments in rubber manufacturing facilities with higher proportion of labour are more common. Additional significant differences can be seen in the management methods applied. In developed countries the sophistication and effectiveness of management is on a higher level, particularly in the area of financial management, marketing, and clearly defined concepts of development. The evaluation of the effectiveness of management can be done indirectly, usually based on the results of subjects operating under similar conditions. Here the Value Based concepts could be eminently suitable for the evaluation of companies' performance.

### **Measurement of the Performance**

The choice of a suitable indicator for measuring a company's performance is one of the most widely discussed areas in today's corporate management circles. If an enterprise wants to be successful, it is absolutely essential that the criteria of its performance and the ways to express it and measure it are clearly defined. In the past, the main goal of an enterprise was very often the maximization of profit. Today, the tendency is to modify the top goal of the enterprise and to accept the criterion of the growth of value. The value-related concept then becomes the way of finding a common denominator for all activities within the company and interconnecting all levels of management [8], [10].

There are some requirements for the suitable indicator:

- ✓ To have a close relation to shareholder value (this relation should be statistically verified);
- ✓ To be able to use as much information from accounting as possible;
- ✓ To take into consideration the risk calculation.

It is not very easy to find such a measure. There are many approaches and measures that follow up Value-Based management. The comparison of some approaches is shown in the **Table 1**.

TABLE 1: COMPARISON OF VALUE-BASED MANAGEMENT APPROACHES [11]

	Stern Stewart & Co.	Marakon Associates	McKinsey & Co.	Price Waterhouse Coopers	L.E.K. Consulting	HOLT Value Associates
<b>Fundamentals for value creation</b>	Strategy, Structure and metrics	Strategy	Metrics & Belief Systems	Structure	Structure & Metrics	Strategy & Metrics
<b>Main elements in the consultants approach</b>	Systems with focus on measuring, training and rewarding	Culture, structure and systems with focus on decentralised strategy development	Culture, structure and systems with focus on corporate strategy and valuation	Culture, structure and systems with focus on training and communication	Culture and systems with focus on strategy and education	Systems with focus on valuation
<b>Focus in strategy deployment</b>	Increasing EVA as general objective	Profitable growth instead of growth	Profitable growth instead of growth	Maximization of shareholder value	Max. of expected shareholder value added	
<b>Preferred Metrics</b>	MVA (corporate), EVA (corporate, business unit (BU) and product line)	Equity Spread (corporate, BU, customer and product line)	Enterprise DCF (corporate, business unit), EP (corporate, BU, customer and product line)	CFROI (corporate), SVA (corporate, BU), FCF (corporate, BU)	SVA (corporate, operating level), Change in residual income or change in EVA, leading indicators of value (operating level)	CFROI (corporate), Accounting-based measures (lower levels)

**Economic Value Added<sup>i</sup> (EVA)** is a widely used performance measure. Many important companies, for example Coca-Cola, Siemens AG, Harsco Corporation, Volkswagen and many others, accepted it.

It shows what additional value the enterprise was able to create by its activity compared to using the capital for other investment opportunities with equal risk. When compared with indicators that are established on the return on capital, EVA shows these differences: EVA uses economic profit, it takes into account an alternative cost of capital;

- EVA covers only revenues and costs that are related to the main entrepreneurial activities and do not cover revenues and costs from extraordinary activities;
- EVA considers only capital used in the main entrepreneurial activity and only capital of investors who expect profit from this allocation;
- EVA is expressed as an absolute value, which means that does not need a comparative standard.

There are several models that can be used to calculate EVA. Accordingly, the Stern & Stewart EVA model is defined [8]:

$$\text{EVA} = \text{NOPAT} - (\text{C} \times \text{WACC}) \quad (1)$$

where NOPAT - Net operating profit after tax

C - Invested capital

WACC - Weighted average cost of capital<sup>b</sup>

According to Neumaierová-Neumaier [4] EVA can be defined in the following fashion:

$$\text{EVA} = (\text{ROE} - r_e) \times \text{E} \quad (2)$$

where: ROE = return-on-equity

$r_e$  = cost of equity

E = equity

Main advantages of the EVA indicator:

- Indicator can be used as a performance measure;

- EVA can be used as a management concept – the connection of all companies’ activities by one basic criterion for increasing company value (for example related to the investment decision - we accept only such decisions that lead to the increasing of EVA. The classical indicator ROI (return on investment) can fail in some cases;
- EVA can be used as a rewarding tool (employees are interested in EVA increasing due to EVA bonuses – they are in the position of „owners“);
- EVA interconnects strategic and operating decisions in the company;
- Easier concept in comparison with other value-based indicators.

Main disadvantages of the EVA indicator:

- Calculation of NOPAT and C (capital) requires some modification of the input accounting data;
- Problems with the calculation of the cost of equity – usage of all models does not provide an unambiguous result;
- EVA is not adjusted for inflation;
- Application of this indicator can lead to investment activities that can increase EVA – but only in the short run.

The EVA indicator expresses the contribution of the main entrepreneurial activities in the defined periods in connection with the company aims and ignores extraordinary impacts. EVA comes from accounting data that are further adjusted. This criterion can also be used for value-based management in small business units, which have the possibility to influence the amount and usage of some part of a company’s assets.

On the other hand it takes into consideration only results of entrepreneurial activities that are recognized as a cost/revenue in the defined period. This indicator cannot be used as the basis for the appraisal of strategic company development. The empirical research points to this speculation. Peterson-Peterson (1996) shows that the correlation between EVA and firm market value is very similar to the correlation between ROE and firm market value. Stern Stewart’s research shows the better results for the EVA indicator – see **Table 2**.

TABLE 2: CORRELATION OF FINANCIAL INDICATORS WITH FIRM VALUE (SOURCE: STERN STEWART).

<i>EVA</i>	0,5
<i>ROE</i>	0,35
<i>Cash flow growth</i>	0,22
<i>Earnings per share (EPS)</i>	0,18
<i>Dividend growth</i>	0,16
<i>Sales growth</i>	0,09

For the increasing of a company’s competitiveness, and its ability to create economic profit, the concept of EVA could be very suitable. It permits companies to identify and manage operating, investing and financing activities that are important factors influencing a company’s performance – see **Figure 1**. Using this measure company’s management is forced to look for sources of value – e.g. value drivers. EVA is very useful in connection with the Balanced Scorecard concept [2], as a measure of financial perspective. Changes in other BCS perspectives will influence this measure. The problem arises in cases that are difficult to quantify. But – „what we cannot measure, we cannot manage“ [2]. Therefore we have to find measurable impacts of the changes in a company’s management.

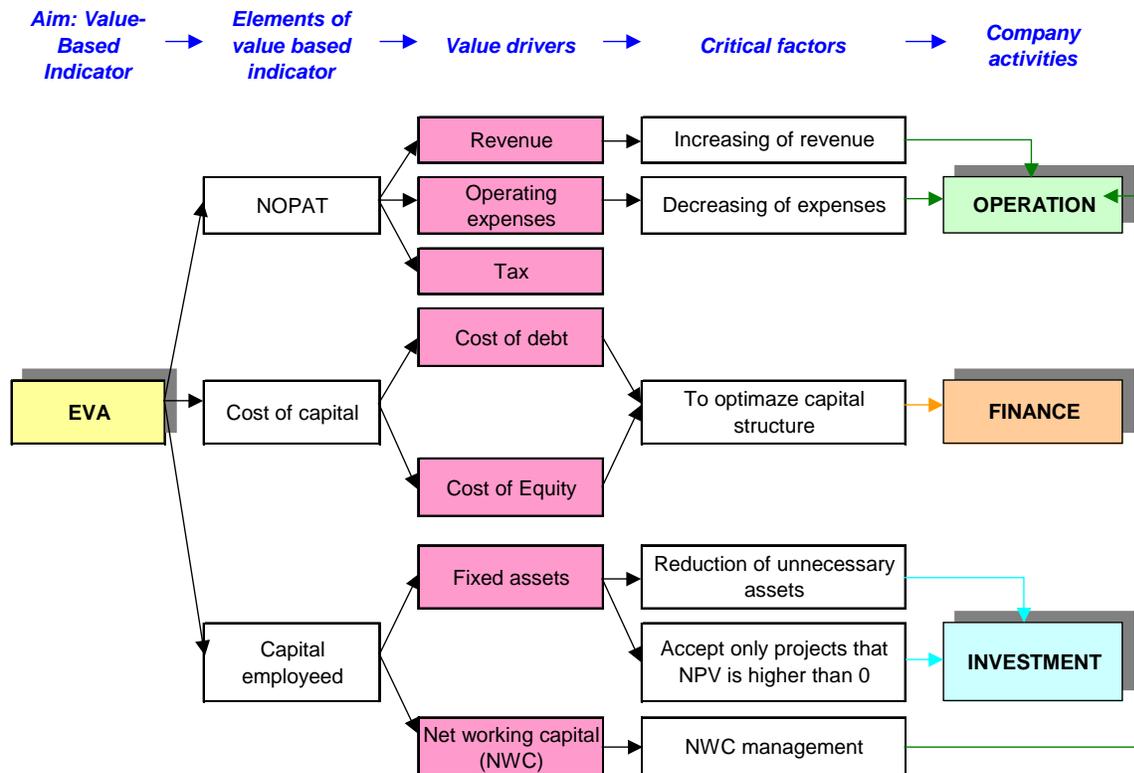


FIG. 1: EVA – VALUE DRIVERS

If we analyse the method of calculating EVA, we observe a host of factors, which could *favourably affect the performance of a company and the growth of its market value*. These are discussed below.

- i) *The amount of operating profit:* This is given by revenues (sales) and operating expenses. The amount of revenues is related to the volume of realized production and by the selling price of goods produced. The amount of operating expenses depends on the type and level of manufacturing processes and on the ability to utilize the available manufacturing facilities effectively. We observe the share of different costs on value added or sales, e.g. financial ratios such as labour/sales, depreciation/sales, (raw material+stores+ energy+services)/sales, interest/sales, etc. Companies increase their ability to compete as long as they create a sufficient margin between the sales price of the product and the variable manufacturing costs, and in the total of its activities that attain profit.

The performance in this field can be measured by financial ratios of profitability such as ROA (return-on-assets = EBIT/assets), ROE (return-on-equity = EAT/equity), ROS (return-on-sales = EBIT/sales), etc.

- ii) *The amount of capital employed:* This corresponds to the total value of the company's assets. The ratio of revenues and the assets available to the enterprise is important. If assets do not create a sufficient amount of revenues, they are not being used effectively and thus may have an unfavourable effect on the amount of operating profit (the value of operating profit is reduced and so is EVA). At the same time, a high amount of capital is required for covering these assets (again a negative effect on EVA). The structure and the rate of turnover of the components of assets, such as fixed assets, inventory, accounts receivable, and cash are important. Long turnover time generally causes high expenses and lost profits. For measuring the performance

in this field we can use financial ratios such as assets turnover (sales/assets), inventory turnover (sales/inventories), average days of debtors and creditors, etc.

Because only interest-bearing capital is used in the formula for the calculation of EVA, it is important to analyze its allocation in assets. As long as it is long-term capital, it should cover the fixed assets and part of current assets (the part that is permanently located in the company). This means a share of long-term capital and fixed assets should be higher than 100 per cent. This in turn creates working capital for the company. Low working capital may cause liquidity problems. High coverage of current assets by long-term capital may be too expensive. For evaluation of liquidity we can use the current ratio (current assets/current liabilities), the quick ratio (receivables+cash)/current liabilities) or the cash position ratio (cash/ current liabilities).

iii) *The cost of capital available to the company:* This relates to the capital structure i.e., to the ratio of equity and debt bearing interest. Differences in capital structure (the share of debt and equity) influences the level of the cost of capital and ROE in consequence of the financial leverage.

The cost of capital depends on the possibility of a company obtaining the capital, and on the effectiveness and the risk of business activities of the company. Companies with high credit ratings usually obtain capital at lower costs or can obtain it easier and at a lower cost in international financial markets (it is possible to take advantage of different interest rates and taxation in different countries). A company can enter international financial markets either independently or as a part of existing multinational corporations.

Companies operating in different areas of business have different asset and capital structures that depend on the type of business. Their structures of returns, costs, and profitability are also different. Currently companies carry different degrees of risk in ventures and finances, and consequently different opportunity costs i.e., different costs of equity ( $r_e$ ). These costs can be expressed (in percentages) as the sum of the risk-free interest rate of a given capital markets, and risk surcharges (for the venture risk, for the reduced liquidity of assets, for financial structure, and for financial stability) or can be calculated using Dividend Model or by the Capital Assets Pricing Model. Risk surcharges are connected with indebtedness (measured by debt/equity), liquidity, ability to pay interest (measured by the interest coverage ratio), the size of the company, and type of business.

In the next part of the paper we focus on EVA in selected rubber companies in the Czech Republic, India and the U.S.A. Companies were selected based on the availability of data and their importance within a region.

**Selected Financial Ratios and EVA in Rubber Industries in the Czech Republic, India and the U.S.A.**

**Tables 3, 4 and 5** show financial ratios and EVA for selected rubber companies (domestic and multinational) in the Czech Republic, India and the U.S.A.

TABLE 3: COMPARISON OF FINANCIAL RATIOS AND EVA FOR SELECTED RUBBER COMPANIES IN THE CZECH REPUBLIC DURING 2002

	Equity (thous. USD)	EBIT /Assets	EBIT /Sales	EAT /Sales	Sales /Assets	Av.days of inventories	Av.days of debtors	Av.days of creditors	Current Ratio	Quick Assets Ratio	Cash Position Ratio
D PLAST spol. s r.o.	5 320	27,3%	27,7%	25,5%	0,98	32	49	43	1,110	0,823	0,400
KSK-BELT, a. s.	2 046	0,8%	1,1%	0,3%	0,76	78	121	181	1,143	0,714	0,046
Megum, s.r.o.	1 662	3,5%	0,9%	0,6%	3,69	30	43	72	1,214	0,801	0,207
Renogum – Nilos, a.s.	5 744	5,7%	4,4%	3,9%	1,30	54	58	42	4,422	3,142	1,770
Barum Continental spol. s r. o.	338 680	14,4%	7,0%	5,2%	2,06	24	57	19	3,397	2,388	0,010
Obnova – Vyrobní zavody, s.r.o.	1 669	1,1%	0,3%	0,2%	4,33	29	33	16	4,090	2,236	0,165
TEZAS a.s.	2 658	1,6%	0,4%	0,1%	4,53	31	22	25	2,143	0,910	0,017
WETEST pneu spol. s r.o.	1 626	7,8%	4,7%	7,7%	1,67	20	84	48	2,609	2,157	0,404
AVON AUTOMOTIVE a.s.	11 773	6,1%	7,9%	1,3%	0,78	42	73	246	0,502	0,332	0,038
Gumarny Zubri, a.s.	7 034	6,6%	4,3%	2,4%	1,53	38	55	58	0,986	0,635	0,127
RUBENA a.s.	22 404	3,3%	2,2%	3,7%	1,49	50	49	39	0,786	0,400	0,028
Semperflex Optimit, a.s.	32 855	5,3%	9,8%	6,7%	0,54	86	133	102	2,254	1,407	0,103
Vulkan a.s.	5 320	5,7%	6,4%	3,4%	0,90	59	59	46	1,089	0,667	0,243
WESTLAND spol. s r.o.	-239	10,7%	2,8%	2,5%	3,84	24	41	98	0,692	0,445	0,022
ZPV Roznov, s.r.o.	172	10,6%	3,7%	1,5%	2,88	34	46	73	0,940	0,564	0,052

TABLE 3 CONTINUED

	Inter. Cover.	Debt/Equity	Long-term Capital/Fixed Assets	Deprec./Sales	Material/Sales	Labour/Sales	ROE	r <sub>e</sub>	EVA (thous. USD)
D PLAST spol. s r.o.	9,5	0,46	1,05	4,5%	56,9%	11,6%	36,9%	10,0%	1 434
KSK-BELT, a. s.	*	0,55	1,10	3,3%	83,5%	11,7%	0,4%	16,0%	-318
Megum, s.r.o.	22,6	3,67	2,91	0,6%	93,5%	5,1%	10,5%	15,3%	-80
Renogum - Nilos, a.s.	*	0,2	2,66	6,3%	65,8%	26,0%	6,2%	9,9%	-217
Barum Continental spol. s r. o.	15,6	0,31	1,55	4,1%	83,1%	6,8%	14,4%	5,2%	31 011
Obnova – Vyrobní závody, s.r.o.	*	0,27	3,60	2,8%	79,2%	14,0%	0,9%	10,1%	-153
TEZAS a.s.	*	0,87	1,65	0,7%	100,2%	4,7%	1,1%	17,5%	-436
WETEST pneu spol. s r.o.	*	0,47	2,52	1,9%	72,5%	21,4%	19,6%	10,1%	155
AVON AUTOMOTIVE a.s.	*	2,04	0,45	5,8%	65,8%	20,3%	3,3%	24,2%	-2 467
Gumarny Zubri, a.s.	2,1	0,96	0,99	5,3%	60,9%	28,6%	7,3%	11,3%	-282
RUBENA a.s.	1,6	1,45	0,81	4,2%	71,2%	23,7%	13,7%	10,6%	685
Semperflex Optimit, a.s.	*	0,39	1,28	9,1%	74,0%	10,9%	5,1%	7,9%	-921
Vulkan a.s.	3	0,57	1,04	7,6%	59,5%	32,8%	4,8%	12,6%	-414
WESTLAND spol. s r.o.	*	-9,26	-0,54	2,3%	72,1%	23,3%	-85,6%	x	x
ZPV Roznov, s.r.o.	7,3	11,21	0,91	2,3%	79,6%	16,9%	54,0%	42,1%	21

\* Data - not available

<sup>x)</sup> Due to negative value of equity it is not relevant to calculate

Sources: Ministry of Industry and Trade, Czech Republic; Albertina data s.r.o. -Firm Monitor 2003; Aspekt 2003.

TABLE 4: COMPARISON OF FINANCIAL RATIOS AND EVA FOR SELECTED RUBBER COMPANIES IN INDIA  
DURING 2002

	Equity (thous. USD)	EBIT /Assets	EBIT /Sales	EAT /Sales	Sales /Assets	Av.days of inventories	Av.days of debtors	Av.days of creditors	Current Ratio	Quick Assets Ratio	Cash Position Ratio
Bharat Rubber Regenerating Co. Ltd.	-187	-23,1%	13,2%	-25,0%	1,82	7	161	46	1,133	0,560	0,000
Ceat Ltd.	127 457	6,7%	9,3%	-0,9%	0,89	44	176	128	1,233	0,470	0,190
Falcon Tyres Ltd.	5 383	12,1%	6,5%	2,1%	2,17	37	43	72	0,990	0,500	0,160
Gujarat Reclaim & Rubber Products Ltd.	950	12,5%	9,6%	3,2%	1,40	29	82	38	1,266	0,670	0,060
Indag Rubber Ltd.	1 965	-2,9%	-2,9%	-11,9%	1,16	103	186	97	1,644	0,750	0,170
Magnus Rubber Inds. Ltd.	-426	-6,7%	-9,4%	-24,5%	0,84	60	176	224	0,397	0,190	0,020
Mahalaxmi Rubtech Ltd.	954	8,3%	16,6%	9,7%	0,55	64	138	47	2,459	1,300	0,330
M R F Ltd.	129 650	11,8%	8,8%	3,8%	1,65	71	65	50	2,039	1,000	0,240
Pullangode Rubber & Produce Co. Ltd.	1 948	-3,3%	13,3%	4,6%	0,25	49	330	53	0,722	0,230	0,140

TABLE 4 CONTINUED

	Inter. Cover.	Debt/ Equity	Long-term Capital/ Fixed Assets	Deprec. /Sales	Material /Sales	Labour /Sales	ROE	r <sub>e</sub>	EVA (thous. USD)
Bharat Rubber Regenerating Co. Ltd.	-2,3	-4,58	1,475	-19,0%	92,0%	20,0%	x	x	x
Ceat Ltd.	1,0	1,66	1,397	1,7%	73,7%	9,0%	0,4%	22,3%	-27 901
Falcon Tyres Ltd.	3,1	1,70	1,014	1,5%	68,6%	11,8%	14,2%	24,1%	-531
Gujarat Reclaim & Rubber Products Ltd.	2,0	2,57	1,212	4,9%	62,5%	16,1%	15,6%	23,7%	-77
Indag Rubber Ltd.	-0,6	1,07	3,037	2,6%	76,9%	14,2%	-13,4%	27,7%	-807
Magnus Rubber Inds. Ltd.	-0,3	-2,98	0,423	7,6%	78,4%	6,8%	x	x	x
Mahalaxmi Rubtech Ltd.	9,6	0,26	1,415	7,2%	54,2%	6,5%	5,9%	14,2%	-79
M R F Ltd.	3,6	1,27	1,908	5,1%	72,9%	8,5%	13,2%	8,3%	6 344
Pullangode Rubber & Produce Co. Ltd.	-38,0	0,30	0,978	2,1%	22,8%	93,7%	-4,4%	32,5%	-718

<sup>x)</sup> Due to negative value of equity it is not relevant to calculate  
Source: Centre for Monitoring Indian Economy (www.cmie.com)

TABLE 5: COMPARISON OF FINANCIAL RATIOS AND EVA FOR SELECTED RUBBER COMPANIES IN THE USA DURING 2002

	Equity (thous. USD)	EBIT /Assets	EBIT /Sales	EAT /Sales	Sales /Assets	Av.days of inventories	Av.days of debtors	Av.days of creditors	Current Ratio	Quick Assets Ratio	Cash Position Ratio
Dow Chemical Co	11 681 000	0,4%	0,6%	0,0%	0,70	76,9	84,2	54,9	1,32	0,84	0,18
E.I. Du Pont De Nemours & Co (DuPont)	13 459 000	7,2%	10,1%	-4,5%	0,71	69,5	86,8	64,7	1,90	1,25	0,58
Bairnco Corp	57 008	2,4%	1,8%	0,9%	1,34	64,5	58,2	58,0	1,72	0,85	0,02
Vulcan International Corp	34 104	4,0%	24,4%	19,9%	0,16	45,8	442,6	22,4	2,16	2,12	2,03
Amerityre Corporation	1 341	-123,5%	-499,2%	-499,2%	0,25	73,3	76,1	289,6	11,56	7,56	6,67
Bandag Inc	416 082	12,7%	8,6%	0,3%	1,48	0,1	55,3	27,5	2,81	0,97	0,97
Cooper Tire and Rubber Co	859 298	9,3%	7,6%	3,4%	1,23	49,8	45,2	30,3	1,98	1,17	0,10
Kik Technology International Inc	706	-1,4%	-0,4%	-0,4%	3,46	43,1	37,5	34,3	2,13	1,22	0,08
The Goodyear Tire & Rubber Co	5 226 700	1,7%	1,6%	-8,0%	1,05	37,9	58,7	61,6	1,28	0,59	0,23
TBC Corp	317 773	11,0%	4,7%	2,5%	2,34	42,8	14,9	55,4	2,10	0,89	0,02

TABLE 5 CONTINUED

	Inter. Cover.	Debt/ Equity	Long-term Capital/ Fixed Assets	Deprec. /Sales	Material /Sales	Labour /Sales	ROE	re	EVA (thous. USD)
Dow Chemical Co	0,2	4,19	1,10	*	*	*	0,0%	49,9%	-3 808 586
E.I. Du Pont De Nemours & Co (DuPont)	6,9	2,82	1,30	*	*	*	-12,2%	11,2%	-2 121 440
Bairnco Corp	2,8	1,24	1,41	*	*	*	2,6%	8,0%	-2 774
Vulcan International Corp	17,4	0,58	1,52	*	*	*	5,1%	7,4%	-1 020
Amerityre Corporation	*	0,06	2,74	*	*	*	-130,9%	19,6%	-2 904
Bandag Inc	11,4	0,46	2,33	*	*	*	0,7%	4,0%	-14 094
Cooper Tire and Rubber Co	3,3	1,88	1,23	*	*	*	11,9%	5,6%	59 229
Kik Technology International Inc	*	0,61	2,82	*	*	*	-2,3%	20,1%	-127
The Goodyear Tire & Rubber Co	0,9	19,21	1,15	*	*	*	-170,0%	81,2%	-1 634 270
TBC Corp	6,0	1,12	2,07	*	*	*	12,3%	4,0%	18 542

\* Data - not available

Sources: <http://finance.yahoo.com/>

Comparing the economic results of the selected companies it is possible to identify the factors that positively affect the creation of Economic Value Added. A company creates EVA if the spread ( $ROE - r_c$ ) is positive. However, ROE (return-on-equity) may increase as long as the company increases profit margin, improves

utilization of assets, and increases debt. However, greater debt contributes to the increase of return-on-equity only as long as the return-on-invested capital is higher than the interest rate at which the company borrows money from creditors. On the other hand, as long as a company increases its debt, it can result in reduced liquidity and an increase of surcharges for the financial structure (as high indebtedness in Megum, Avon Automotive, Westland, ZPV Roznov, Dow Chemical Co, The Goodyear Tire&Rubber Co, Bharat Rubber Regenerating, Gujarat Reclaim & Rubber Products, Magnus Rubber), low interest coverage (as found in Dow Chemical Co, The Goodyear Tire&Rubber Co, Bharat Rubber Regenerating, Ceat, Indag, Magnus Rubber, Pullangode Rubber), and for financial stability (as low liquidity ratios found in Avon Automotive, Gumarny Zubri, Rubena, Falcon Tyres). Higher debt brings about higher interest expense and consequently a reduction of profits after deduction of interest expenses. A high coverage of long-term assets by long-term capital brings about financial stability but, on the other hand, reduces profitability of the company. Long-term capital is usually more expensive than short-term capital (for example see Indag or Obnova-Vyrobni zavody, both of them have high ratio of long-term capital to long term assets, high liquidity, but very low profitability.)

It is evident that among the companies being analysed in the sample, the major problems for those that do not create EVA are small profit margin (almost all companies in the sample with negative EVA), and/or high costs of capital. Falcon Tyres and Gujarat Reclaim & Rubber Products have competitive ROE but their costs of equity are high and their EVA is negative. These higher costs of equity ( $r_e$ ) are due to the smaller size of these firms (higher risk surcharges for a reduced liquidity of property shares as found in Gujarat Reclaim & Rubber Products, Mahalaxmi Rubtech and others), and higher risk surcharges for high indebtedness and low liquidity. Mahalaxmi Rubtech compared to other Indian companies in the sample has a low cost of equity (a risk surcharge only for the small size of the company), high liquidity, and low indebtedness. On the other hand the profitability (ROE) is low and EVA is negative. In addition the collection period for receivables is too long (three times longer than the period for paying current liabilities). This shows that the company keeps a lot of money in receivables and quickly pays to sundry creditors. The company also does not take the advantage of the capital gearing (debt to equity is very low). A quite similar situation we can see in the company Semperflex and Bandag Inc. Goodyear Tire&Rubber Co has losses, extremely high indebtedness (causes even deeper negative profitability) and low liquidity results in extremely negative return-on-equity and extremely high cost of equity. Vulcan International Corp has negative EVA, but high profit margin - the reason being very low asset turnover. Companies with negative equity have not been considered in calculating ROE (if company has losses as well) and the cost of equity and ultimately EVA.

The positive value of EVA was in D Plast because of high ROE and high profit margin. In Cooper Tire and Rubber Co and Barum Continental a very low cost of equity (because of the size of the company) and high financial stability made the EVA positive, whereas in Wetest Pneu good inventory turnover, good receivables management, and financial stability created the environment for better ROE by using more short-term capital for financing current assets. As spread is quite small in Rubena, in future the company must increase profit margin to benefit from the positive effect of leverage. ROE is very high in ZPV Roznov due to the very small amount of equity. However, the company has a very high surcharge for financial instability. Indebtedness is also high. MRF Ltd experienced a very low risk surcharge because of positive affect of leverage on ROE and financial stability, and the size of the company.

Generally Indian companies in the sample bear higher costs of equity due to a higher risk-free rate. For the Czech economy the cost of equity in 2002 was 5.1 percent, for the Indian economy 7.42 percent and finally for U.S. economy 4.6 percent.

At the same time the selected companies with a significant foreign ownership interest show distinctly better economic results. This interest enables a company to use the markets, gives it better access to cheaper capital, and especially brings know-how and modern management concepts to the company.

## **Conclusion**

Economic Value Added can be used as a management concept and performance measure. Identification of the factors influencing the creation of EVA could help to improve the companies' financial management and

performance, and to make use of the opportunities for rubber companies. There are several factors significantly supporting the creation of positive EVA. The analysis of the selected Czech, Indian and U.S. rubber companies showed the main value drivers - sufficient profitability covering the cost of capital, capital structure taking advantage of financial gearing and keeping financial stability. It analysed the solvency, the allocation of financial sources to structure of assets effectively ensuring production, sales and profits, cost management, and risk management that results in decreasing cost of capital.

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## End Notes

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<sup>i</sup> EVA is the registered mark of Stern Stewart&Co.

<sup>b</sup>  $WACC = r_e \times \frac{E}{C} + r_d \times \frac{D}{C} \times (1 - T)$ , E - Equity, D - Debt bearing interest, C - Capital, T - Tax rate,  $r_e$  - Cost of equity,  $r_d$  - Cost of debt

# Measuring Globalization of Economies as a Tool for Managing Global Complexity: The Case of Slovenia and Nine Comparable Economies

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## Abstract

The issue of managing global complexity is becoming increasingly important not only for the firms but also for the economies. However, numerous existent approaches towards measuring globalization of economies are based upon very narrow understanding of globalization. This paper introduces the systemic approach towards measuring globalization of economy, which is based upon the contemporary theoretical comprehension of national competitiveness and economic growth. The main purpose of such approach is to emphasize the importance of holistic view on global economy. Thus, the significance of measuring globalization of economy is to get the information not only on the position but also on the potentials of economy for international integration. In the empirical part of the paper, the composite indicator of global economy is developed by the principal components analysis. Then the ordinary least squares and panel regression analyses confirm the hypothesis that global economies achieve higher long-term cumulative economic growth.

## Introduction

National governments are increasingly interested in the position and potentials of their economies in the period of contemporary globalization. This interest is combined with realization that the economies that actively participate in the globalization processes achieve higher positive effects of globalization. According to Srinivasan [44] globalization is a benevolent force that creates opportunities for rapid growth and faster poverty alleviation, namely in the economies that are ready for it, that is, in those economies in which domestic economic, political and social environment is conducive to underpinning the globalization processes. Thus, the active participation of economy in these processes comprises the creation of such environment, which then increases the possibilities for higher economic growth and welfare. The framework of these conditions depends upon the theoretical concept of global economy.

It is argued that globalization is a manifestation of complexity, which flows from conditions of multiplicity, interdependence, and ambiguity, all of which are interrelated [22, 49]. Some researchers, who study globalization of economies, define the global economy by means of the indicators of international integration of markets, such as international trade, foreign direct investment (FDI), activities of transnational companies, international financial flows and information-communication technology [56, 20, 11, 55, 27, 2, 57, 5, 50, 34, 12, 46]. Others deal with this topic in a more holistic way: they view global economy as its competitiveness which influences the economic growth [41, 18]. These authors define the economy as a complex system of mutually dependent spheres of operation. The economic system attains the most favorable effects if all of the mutually dependent spheres are able to adapt at the same time to the demands of the changed techno-economic and socio-institutional paradigms<sup>1</sup>.

The main purpose of our paper is to present an alternative approach to measure the globalization of economies, which is based upon the theory of systemic framework of national competitiveness and economic growth. On this basis we will set up a system of indicators, which will be combined into a composite indicator of global economy, using a two-step principal components analysis approach. Reliability of each indicator will be verified by Crombach's Alpha. Based on the obtained composite indicators we will rank the economies in the sample, with special stress on the position of Slovenia among nine comparable economies. In the second part of the analysis we will try to measure the impact of globalization of economies on their growth. Different specifications of the model will be tested, including ordinary least squares (OLS) and panel regression.

## Defining the Global Economy

### Systemic Approach

Our concept of global economy is based on the *assessment of position and potentials of economy for achieving higher economic growth in the period of contemporary globalization*. The definition of global economy is based upon Porter's diamond of national competitive advantages, Hämäläinen's systemic framework of national competitiveness and economic growth and Dunning's [7] eclectic paradigm. The systemic approach suggests that for achieving long-term economic growth, the configuration of the entire economic system is crucial.

The theory of selection of indicators is based upon the consequences of growing problems of the old techno-economic paradigm and the characteristics of new techno-economic and socio-institutional paradigms. Accordingly, the elements of systemic framework of economic growth in the period of globalization are described with the following characteristics:

*Productive resources*: economic growth in the period of new techno-economic paradigm is based upon created and specialized resources. The increasing importance of these resources stems from the changed demand and supply conditions in factor markets [7, 41]. The demand for created and specialized resources is also increased by the changing nature of production processes. The increasing specialization and complexity of production processes decreases the importance of direct production activities relative to transaction and coordination activities. Since many transaction and coordination activities require advanced technology and highly skilled human capital, the demand for knowledge-intensive, created and specialized resources tends to increase.

*Technology*: during a techno-economic paradigm shift, the technological competitiveness of the nation can be measured with the indicators that capture the dynamism of national innovation processes and the extent to which the economy is able to utilize the core technologies of the new paradigm. The competitiveness and growth impact of new technologies is determined by a two-phased process of innovation and diffusion. Countries that experienced the highest levels of growth in the 1990s are likely to be those that can most rapidly develop new products, processes and services based on these new technologies and apply them most efficiently to other sectors of the economy [35]. Radical innovation by a few organizations, together with incremental technological and organizational innovation will therefore remain essential to ensuring the sustainability of economic growth over the long term.

*Organizational arrangements*: new organizational arrangements, demanded by the new paradigm, include, for example, increasing horizontal links with suppliers and customers, greater emphasis on horizontal communications and cooperation within organizations, flatter hierarchies and decentralization of decision making [42]. Another change is the reduction in the specialization of occupations and in the number of occupational categories. Firms have decentralized the information processing and coordination tasks to lower levels of the organization and arranged the overall coordination with non-hierarchical means such as shared corporate vision, mission, culture and values [15].

*Product market characteristics*: the paradigm shift is also rapidly changing the nature of product markets [18]. Traditional mass markets are splintering into a myriad of differentiated niche markets. At the same time, the quality of product market regulation and user-producer relationships have become increasingly important for firms' innovation processes and international competitiveness.

*International business activities*: in the 1970s the increasing problems of the old techno-economic paradigm began to influence firms' investment patterns and innovatory activities. The decreasing profitability of firms forced them to look for new profit opportunities. The more extensive, international and differentiated markets allowed firms to increase the geographical scope of their activities and the degree of specialization in their production processes. National economies have become tightly linked with international trade, foreign direct investment, cross-border cooperative ventures and international financial transactions. The globalization processes have made international business activities an important determinant of national competitiveness and economic growth [6].

*Institutional framework*: the growing demands for efficiency and innovation in the world economy increase the importance of good institutional incentives. Institutions play an important role in reducing the bounded rationality, opportunism and uncertainty which characterize complex economic systems [30, 53]. The institutional

framework influences economic competitiveness and growth by shaping the individual and organizational incentives. These incentives shape the processes of resource accumulation and upgrading, technology development and diffusion, resource reallocation, utilization and coordination, the interactions of buyers and sellers in the product markets, and the internationalization of business activities.

*Government role:* at the beginning of the 1990s, rapid structural changes in the world economy forced industrialized countries into a situation where they had to reassess the balance between the two main duties of government - enhancement of overall efficiency and growth of economy versus reduction of social inequities. Increasing competition among firms and the growing international mobility of productive assets and technologies put increasing weight to government policies that provide efficient framework conditions for firms [33]. At the same time the rapid diffusion of the ICT and “best practice” organizational arrangements created severe structural adjustments problems in the industrialized countries. These problems led to high unemployment rates, continuous public sector deficits and growing social inequalities [31, 32]. To successfully overcome numerous inefficiencies of the market mechanism, i. e. market failures, the equilibrated government intervention is required.

In accordance with the ascertainment, that the increasing internationalization and specialization of firms' activities could not be accommodated within the old techno-economic and socio-institutional paradigms [18], we define the global economy as a system of above mentioned seven mutually dependent spheres. Thus, the global economies are those, which take advantage of positive influences of globalization by better adaptation towards the new techno-economic and socio-institutional paradigms.

The hypothesis of our paper has been deduced from the statement, that during and after a major techno-economic paradigm shift, the economic growth of an economic system depends upon its particular socio-economic starting point – i.e. the existing resources, technologies, organizational arrangements, product market structures, external business activities, institutions and government role – and its adjustment capacity vis-à-vis the new techno-economic and socio-institutional paradigms [26, 16]. A good starting point and adjustment capacity give society a clear advantage in socio-economic development due to 'increasing returns' associated with the adoption of the new paradigms. This is where the systemic nature of socio-economic change becomes particularly important. We presume that:

*Hypothesis:* Global economies achieve higher long-term cumulative economic growth

#### **Systemic Approach – the Possibilities of Empirical Testing**

Numerous of quantitative and qualitative indicators are required for the empirical testing of systemic approach towards measuring globalization of economy. Therefore, the empirical studies are confronted with four main difficulties: shortage of comparable statistical data, the question of objectivity of soft indicators, which are based on the questionnaires results, the necessity for combining large extent of information into the easily examined form of communication (individual indicators should be combined into the composite index, which for the price of more holistic information, partly loses its reliability) and the possibility of performing regression analysis – mutual dependency of the various spheres of the system creates the problems of multicollinearity.

These facts have created doubts about the credibility of benchmarking economies on the basis of composite indicators [21]. At the same time, however, in line with the statement, that countries not only cooperate, but compete as well [4], benchmarking keeps its informative significance. Such information is applicable not only because of the informational gap of the official statistics in the field of qualitative indicators, but because of the pragmatic way of communication as well. The composite indicators have gained importance as a communication and political tool because of their ability to integrate wide extent of information into a form, comprehensible to wider circle of users [14]. Their applicability is increasing in different areas of economic and business statistics, which shows their political importance and operational adequacy in the field of decision making [8, 28].

#### **The Construction of Composite Indicator of Global Economy**

In the selection of data sources, we have tried, as far as possible, to rely on statistical databases of international organizations [35, 34, 39, 36, 40, 37, 38, 50, 45, 46, 47, 48, 54, 19]. In order to guarantee the comparability, we have also preferred data sets which cover most of the statistical sample (44 countries) and all five years of observation (the period from 1998 to 2002). Due to the systemic and interdisciplinary nature of our theoretical framework, we could not rely on traditional data sources alone. We were forced to use many unconventional data sources and proxy

variables in order to match our theoretical arguments (we have mainly relied upon the data of Economist Intelligence Unit (EIU) [9, 10] and World Economic Forum (WEF) [51, 52].

## Methodology

### The Selection of Indicators

The joint composite indicator of global economy has been constructed on the basis of 83 individual indicators, linked into the seven spheres of economic growth<sup>2</sup> - the system of indicators is presented in the Table 1 (Appendix).

In order to verify the suitability of selected indicators to the theoretical framework, we decided to construct the composite indicator by the use of the PCA, at the same time making the final selection of indicators and determining the weights. Thus, from the broader assortment of theoretically grounded indicators only those, which are the part of the same common component, were kept. In the selection of indicators two criteria were applied: communalities of individual variables and the weights of factors [43, 17]. The indicators with the communalities above 0, 2 and with the positive weights of factors with the minimum value of 0, 3 have been included in the composite indicator.

### Standardization and Weights Determination

With the intention of their greater comparability the indicators have been standardized. The standardized normal variables have been obtained by subtracting the arithmetic mean from the observed value of the variable and by dividing the difference with the standard deviation of the variable.

The weights of single indicators in the composite index have been determined in two levels by means of the PCA approach. On the first level, the weights of the indicators in the sub indices were determined, whereas on the second level, the weights of the sub indices in the joint index of global economy were determined. From the technical viewpoint, the weights of the indicators have been determined at the correlation matrix. This practically means that each of the indicators, which form the component, has the same weight; the actual weight, however, is determined by the structure of correlation with other variables.

### The Problem of Missing Data

The missing data were quite a considerable obstacle in the analysis. Due to their structure, in the individual parts of the analysis the elimination of observations with at least one missing value caused a considerable loss of observations. We have applied the combined approach to dismiss the problem of missing data. The entrance correlation matrix for the PCA has been calculated by means of in pairs eliminated observations with the missing values – coefficients of correlation have been calculated on the basis of at least 167 and at the most of 220 pairs of data. With the actual calculation of the index, the missing values (after the weights have been calculated) have been ignored. The value of the index in each observation has been calculated from the available indicators and corrected by the factor of correction

$$k \equiv \frac{\sum_i w_i}{\sum_j w_j} \quad (1)$$

where  $w_i$  is the weight with the single indicator,  $i$  is the weight of particular index and  $y$ , however, the weight with the non-missing values.

### Results of the PCA

By the PCA, the high reliability of five composite indices has been ascertained: productive resources, technology, organizational arrangements, products market characteristics and institutional arrangements. With these indices, the values of Crombach's Alpha are high, and the first component comprises more than 50 % of the variability of all of the indicators that are included in the particular sub index (Table 2). The PCA has eliminated some of the proposed indicators of these spheres, yet, this has not substantially influenced the reliability of composite indices.

TABLE 2: RESULTS OF THE PCA – SINGLE SUB INDICES

Indicator	Crombach's Alpha	Total Variance Explained
PRODR	0,84	55 %
TECHNOL	0,92	62 %
ORGAR	0,98	72 %
PROMC	0,96	82 %
IBA	0,72	33 %
IFRAM	0,94	57 %
GOVMR	0,65	39 %

With the view to the Crombach's Alpha and the total variance explained, the composite indices »international business activities« and »government role« are less reliable. This is partly the confirmation of theoretical arguments and partly the consequence of international incomparability of statistical data. Theoretically, the role of these two spheres in the systemic framework of global competitiveness of economy justifies this result. Namely, it is rather interested that the results of analysis are to the great extent in accordance with the hierarchical structure (different role) of single spheres in this framework. Another possible reason for this result could be the trade-off between exporting to a certain country and investing into it. This means that the correlation between international trade and net foreign investments is not necessarily strong or positive, a fact that makes »international activities« a multi-dimensional rather than a one-dimensional concept, that could be sufficiently explained by the first principal component. Lower reliability of composite indicator of government role can certainly be assigned to the international incomparability of collected statistical data (heterogeneity of presentation of the structure of government consumption) and to a lot of missing observations in the dataset, regarding these indicators.

In the continuation, the composite indicator of global economy has been constructed from composite sub indices. Single composite indicators were the input variables for the second level of weights determination and the selection of indicators by means of the PCA. The sub indices have been standardized once again in order to eliminate the influence of different number of indicators in each sub index.

Table 3 shows the high reliability of composite indicator of global economy, on the basis of five the most reliable sub indices. If »international business activities« and »government role« are included, the composite indicator is statistically less reliable.

TABLE 3: RESULTS OF THE PCA – JOINT COMPOSITE INDICES

Indicator of global economy I	Crombach's Alpha	Total Variance Explained
PRODR		
TECHNOL		
ORGAR	0.967	88%
PROMC		
IFRAM		
Indicator of global economy II		
PRODR		
TECHNOL		
ORGAR		
PROMC	0.844	67%
IBA		
IFRAM		
GOVMR		

Notwithstanding the above mentioned, and according to the theory and the argumentation of possible reasons for unreliability of these two groups of indicators, the sub indices of international business activities and government role are included in the joint composite indicator.

Fig. 1 shows the position of Slovenian economy in the year 2002 in comparison to nine comparable economies<sup>3</sup>. Its position is similar to the position of other new members of EU (Czech, Hungary, Poland), which according to the main aspects of economic growth – the exception are already discussed »international business activities« and »government role« - attain lower ranking. On the basis of this composite indicator, Slovenia is positioned on the sixth place among the observed countries.

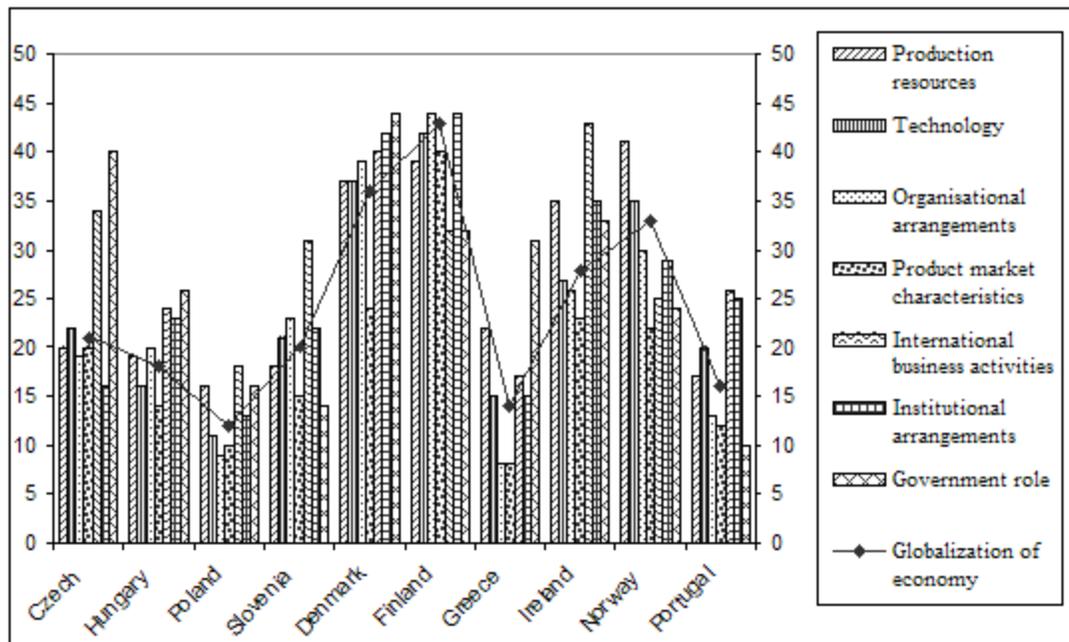


FIG. 1: RANKINGS OF SLOVENIA AND NINE COMPARABLE COUNTRIES

From Fig. 2 it is evident, that on the basis of this composite index, Slovenia is the second most global economy among more developed new members of EU. It has an advantage over Poland in all aspects, in comparison to Czech Republic the advantages are in organizational and institutional arrangements, in comparison to Hungary, however, Slovenia lags behind in productive resources and government role but it has advantages in all other aspects.

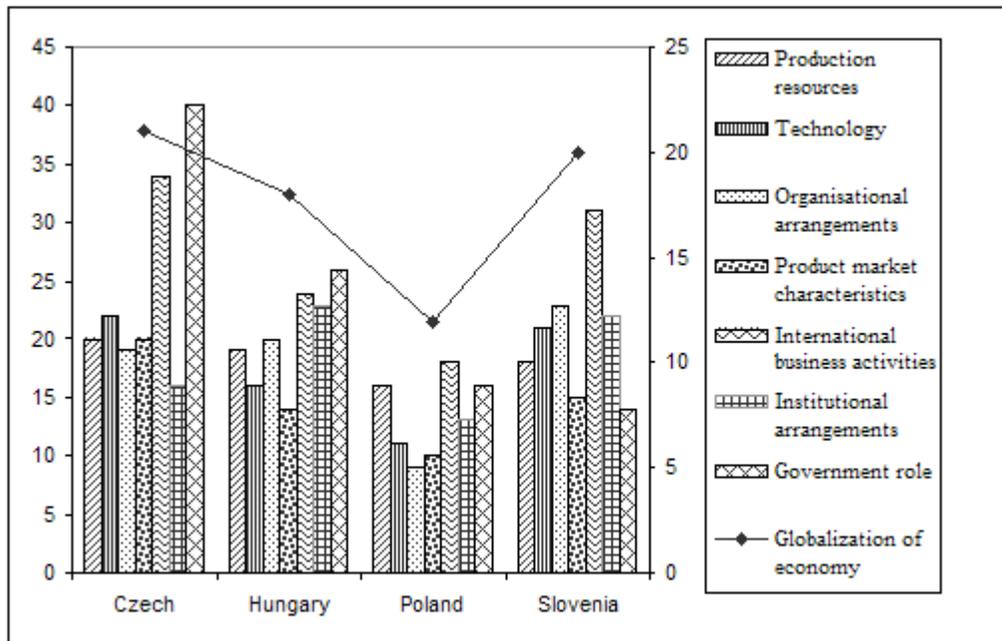


FIG. 2: RANKINGS OF SLOVENIA AMONG MORE DEVELOPED NEW MEMBERS OF EU

The results of the PCA analysis also suggest that Slovenian economy has relatively good potentials in the field of technology. With regard to the ascertained advantages in organizational arrangements, testing of statistical significance of partial correlations between some of the variables in these two fields offers new research challenges. Particularly interesting would be assessment of partial coefficients between variables of ICT-diffusion and some variables of organizational arrangements. One of the arguments that support this interest is a commonly held belief in scholarly and trade literature that ICT plays an increasingly critical role in the organizational transformation. Indeed, empirical studies support the idea that ICT helps companies develop and implement strategy, and yields direct economic benefit [3]. Yet some other studies suggest that up to two-thirds of small and medium size enterprises (SME) relegate ICT to performing routine operations only rather than leveraging it to help advance the company's strategy [23]. The results of the analysis conducted between Slovenian SMEs, however, suggest that these companies indeed are using some applications of ICT strategically and that strategic ICT usage is associated with two or three factors. Additional analyses show that companies adopting a low-cost strategy are the least likely to use ICT strategically whereas firms emphasizing innovation and, to a lesser extent, an efficiency strategy, use ICT more strategically [24, 25]. The latter ascertainment could be a good starting-point for further analysis in this field.

It is necessary to take into consideration the fact that the weights of the indicators are determined statistically, i.e. by means of the PCA approach. However, the main weakness of this approach is similar to the weakness of arbitrary determination; namely, the approach does not reflect the actual importance of the single sub index in the joint composite indicator. This weakness is even more evident in the case of shortage of comparable statistical data. But, with regard to the Porter's argumentation [41], that individual economies go simultaneously through different development stages (resource driven, investment driven, innovation driven and wealth driven) with different importance of single factors of economic growth, the authors, that are studying measuring globalization of economies, prefer statistically over arbitrary determination of weights [29, 27, 2]. The main basis for the reliable statistical weights is the availability of the appropriate statistical data.

## Globalization of Economies and Economic Growth

### Methodology

In the second part of our empirical study we will test the general hypothesis of our study: *global economies achieve higher long-term cumulative economic growth*. In order to test our hypothesis we estimated the following OLS regression model

$$\Delta GDPpc_{it} = \alpha + \beta X_{it} + \gamma Z_{it} + \varepsilon_{it} \quad (2)$$

where  $\Delta GDPpc_{it}$  is the relative increase (growth) of the GDP per capita in economy  $i$  in the year  $t$  as compared to the year  $t-1$ ;  $X$  is the vector of independent variables values for country  $i$  and  $Z$  is the vector of control variables values for country  $i$ , whereas the  $\varepsilon_{it}$  represents the error term. In the panel specification of the model, the error term is divided into country-specific error  $v_i$  and remaining  $\varepsilon_{it}$ .

There are two main differences in our empirical analysis, compared to the approach of Hämäläinen [17]. First difference is the improvement in the construction of composite indicator of globalization of economies. Instead of arbitrary assigning of weights we used the PCA approach, and also tested for the reliability of composite indicators. The second difference lies in the use of different specifications of the model, thus getting more reliable results.

The dependent variable of our study, economic growth, is operationalized with GDP/capita level, as a measure of long-term cumulative economic growth. The independent variables include: a) the composite indicator of globalization of national economy; b) composite indicators of seven spheres of economic growth in the period of globalization; c) three control variables. The seven spheres of economic growth are: productive resources (PRODR), technology (TECHNOL), organizational efficiency (ORGAR), product market characteristics (PROMC), international business activities (IBA), institutional framework (IFRAM) and the government role (GOVMR). The two control variables include consumer price inflation (INF), long-term interest rates (LTINTR) and BDP per capita level (BDPPCL). The first control variable is included to test the known hypothesis that less-developed countries tend to grow faster than the leading countries [1]. The intention of other two variables is to test the importance of macroeconomic environment in the new techno-economic paradigm.

### Results

If we take a look at the results we can see from the model 1 (Table 4) that globalization of economies does not have an effect on growth. However, if we control the effects of interest rates, inflation and level of GDP per capita, globalization of economies has a positive effect on growth (Model 2). This means that more developed countries do grow slowly, but especially for less developed countries it is true that they grow faster, if they are more global.

TABLE 4: OLS AND PANEL REGRESSIONS, DEPENDENT VARIABLE BDP PER CAPITA

	Model 1			Model 2		
	OLS	RE	FE	OLS	RE	FE
PRODR						
TECHNOL						
ORGAR						
PROMC						
IBA						
IFRAM						
GOVMR						
<b>GLOBCOMP</b>	0.15 (0.69)	0.12 (0.39)	0.18 (0.58)	0.97 (2.1)*	1.08 (1.98)*	0.63 (0.78)
LTINTR				0.39 (2.34)*	0.5 (2.52)*	0.2 (0.86)
INF				-0.15 (-1.04)	-0.13 (-0.86)	-0.02 (-0.07)
BDPPCL				-0.13 (-2.01)*	-0.13 (-1.59)	-0.09 (-0.95)
_cons	4.26 (19.32)***	4.27 (13.58)***	4.27 (13.72)***	5.04 (3)**	4.43 (2.09)*	4.89 (2.05)*
R2 (overall)		0.01	0.03	0.03	0.14	0.13

Values in parentheses are t-values.,\*Statistically significant at 0.05, \*\*Statistically significant at 0.01.

From Models 3 and 4 (Table 5) we see that of the spheres of economic growth productive resources are by far the most important. Other spheres do not seem to have a statistically significant effect on growth in neither specification of this analysis.

TABLE 5: OLS AND PANEL REGRESSIONS, DEPENDENT VARIABLE BDP PER CAPITA (CONTINUATION)

	Model 3			Model 4		
	OLS	RE	FE	OLS	RE	FE
PRODR	0.39 (3.01)**	0.41 (2.45)*	0.37 (1.79)	0.48 (3.64)***	0.43 (2.71)**	0.5 (2.37)*
TECHNOL	-0.21 (-2.36)*	-0.27 (-2.36)*	-0.17 (-1.2)	0 (0)	-0.04 (-0.41)	-0.01 (-0.05)
ORGAR	0.04 (0.63)	0.07 (0.8)	0.02 (0.23)	0 (-0.05)	0.04 (0.44)	-0.05 (-0.61)
PROMC	0.09 (0.86)	0.09 (0.6)	0.08 (0.55)	0.04 (0.35)	0.03 (0.22)	0.08 (0.47)
IBA	-0.02 (-0.17)	-0.02 (-0.21)	-0.04 (-0.11)	-0.04 (-0.47)	-0.01 (-0.12)	-0.11 (-0.42)
IFRAM	-0.08 (-2.16)*	-0.09 (-1.81)	-0.07 (-1.26)	-0.06 (-1.38)	-0.08 (-1.41)	-0.05 (-0.69)
GOVMR	0.13 (0.84)	0.18 (0.79)	0.11 (0.44)	-0.04 (-0.19)	-0.05 (-0.18)	0.02 (0.05)
<b>GLOBCOMP</b>						
LTINTR				0.32 (1.76)	0.42 (2.07)*	0.09 (0.32)
INF			-0.08 (-0.5)	-0.08 (-0.53)	0.11 (0.39)	
BDPPCL			-0.19 (-2.95)**	-0.16 (-1.9)	-0.16 (-1.71)	
_cons	4.54 (19.31)***	4.55 (13.4)***	4.53 (12.89)***	6.84 (3.86)***	5.61 (2.56)*	6.88 (2.59)*
R2 (overall)		0.06	0.06	0.06	0.28	0.26 0.25

Values in parentheses are t-values, \*Statistically significant at 0.05, \*\*Statistically significant at 0.01.

The statistical weakness of most of the theoretically important spheres of economic growth can be seen in the context of mentioned difficulties with the empirical testing of systemic framework of economic growth. Thus, one of the main reasons for apparent insignificance of these spheres may be the high multicollinearity among the key variables of new paradigms. This may seriously distort the significance and even the signs of the independent variables. Due to interdependencies other variables may have assumed some of their explanatory power. Some of

the insignificant variables may also influence economic performance with a rather long time lag. For example, technological investments and inventions may take years to influence economic growth. However, testing such lagged relationships requires improvements in the availability of longitudinal data on many indicators.

## Conclusions

During the past few decades the continuous growth and geographical integration of markets has led to an increasingly complex international division of labor where national economies are tightly linked by international trade, foreign direct investment and cross-border cooperative ventures. The globalization has created serious problems for the established techno-economic and socio-institutional paradigms. These problems were an important catalyst to the current paradigm shift. The new ICT paradigm requires rapid and balanced techno-economic and socio-institutional adjustments of nations. Structural adjustments are not easy, however, because they have to overcome significant mental inertia and rigidities. In this context, the increasing competition, specialization, complexity, structural change and knowledge intensity of modern economies is challenging the efficiency of the market mechanism, the governments and the whole society.

On the basis of the thesis that during and after a techno-economic paradigm shift, the growth of an economic system depends on its particular socio-economic starting point - and its adjustment capacity vis-à-vis the new 'best practice' techno-economic and socio-institutional paradigms, it is reasonable to define the global economy not only as globally integrated, but as globally competitive as well. Such economies are complex systems where 'everything depends on everything else'.

The composite indicator of global economy, constructed by the PCA on the basis of indicators of systemic framework of economic growth, has proved as reliable. But in spite of the fact that statistically, like arbitrary, determined weights of indicators in the composite indices, do not reflect their actual importance, they have proved as the most appropriate for measuring the entanglement of globalization of economies. The second suitable method for determining weights could be regression analysis, which results, however, due to the mutual dependence of the spheres of economic growth and consecutive multicollinearity of variables, could be distorted.

When testing the hypothesis, the implementation of regression analysis in the case of measuring of globalization of economies has proved as problematical. With the inclusion of control variables into the regression model, however, it has been proved that the globalization of economies positively influences their economic growth. This is particularly true for the less developed economies.

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## Appendix

TABLE 1: THE SYSTEM OF INDICATORS OF GLOBAL ECONOMY

<p><b>INDICATOR 1: Productive Resources (PRODR)</b></p>
<p><b>Sub indicator 1: Venture Capital</b></p> <ul style="list-style-type: none"> <li>• Availability of venture capital (1=low, 7=high)</li> <li>• Venture capital investments (% of GDP)</li> <li>• Venture capital investments in high-technology sectors (% of total investment)</li> </ul> <p><b>Sub indicator 2: Human Resources</b></p> <ul style="list-style-type: none"> <li>• Percentage of the population between 20 and 29 years of the age enrolled in tertiary education</li> <li>• Percentage of the population between 25 and 34 years that has attained tertiary level of education</li> <li>• Brain drain (1=high, 7=low)</li> </ul> <p><b>Sub indicator 3: Science</b></p> <ul style="list-style-type: none"> <li>• Number of scientific publications per million inhabitants</li> </ul> <p><b>Sub indicator 4: ICT-infrastructure</b></p> <ul style="list-style-type: none"> <li>• Telephone lines per 100 inhabitants</li> <li>• Internet hosts per 10000 inhabitants</li> </ul>
<p><b>INDICATOR 2: Technology (TECHNOL)</b></p>
<p><b>Sub indicator 1: Research &amp; Development (R &amp; D) inputs</b></p> <ul style="list-style-type: none"> <li>• Expenditure on R &amp; D (% of GDP)</li> <li>• Number of researchers per 1000 of labor force</li> </ul> <p><b>Sub indicator 2: Innovations</b></p> <ul style="list-style-type: none"> <li>• Resident patents per 10000 inhabitants</li> <li>• Technical sciences graduates in R &amp; D per million inhabitants</li> </ul> <p><b>Sub indicator 3: ICT diffusion</b></p> <ul style="list-style-type: none"> <li>• Personal computers per 1000 inhabitants</li> <li>• ICT Environment (1=bad, 7=very good)</li> <li>• ICT Readiness (1=low, 7=very high)</li> <li>• Internet users per 100 inhabitants</li> <li>• ICT usage (1=low, 7=very high)</li> <li>• E-business (1=undeveloped, 7=highly developed)</li> </ul>
<p><b>INDICATOR 3: Organizational Arrangements (ORGAR)</b></p>
<p><b>Sub indicator 1: Allocative efficiency</b></p> <ul style="list-style-type: none"> <li>• Unemployment (%)</li> <li>• Female share of labor force (% of total labor force)</li> </ul> <p><b>Sub indicator 2: Adjustment to the new paradigms</b></p> <p><b>Sub indicator 1: Operation and behavior of companies</b></p> <ul style="list-style-type: none"> <li>• Sophistication of production processes (1=labor intensive, 7=high-technology demanding)</li> <li>• Nature of competitive advantages (1=cheap or local natural resources, 7= unique products and / or processes)</li> <li>• Sophistication of value adding chain (1=resources exploitation and/or production, 7=development, marketing, sale, logistics and after-sale activities)</li> <li>• Marketing development (1=low, 7=high)</li> <li>• Human management (1=low investment into education and development of employees, 7=high investment into acquirement, education and retainment of qualitative employees)</li> <li>• Companies-customers relations (1=bad, 7=qualitative)</li> <li>• Ethical behavior of companies (interactions between defined company and other companies are in international perspective 1=poor, 7=very good)</li> <li>• Universities/industry R &amp; D collaboration (1=undeveloped, 7=highly developed)</li> <li>• Innovation potential (1=licensing, imitation, 7=development of own products and/or processes)</li> <li>• Inclination for innovation (1=low, 7=high)</li> <li>• Company spending on R &amp; D (1=low, 7=high)</li> <li>• Firm-level technology absorption (1=low, 7=high)</li> </ul>

**Sub indicator 2: Management of companies**

- Relationship employers – employees (1=uncooperative, 7=cooperative)
- Management responsibility (1=low, 7=high)
- The role of supervisory boards (7=high)
- Management professionalism (1=low, 7=high)
- Management wages (1=mainly fixed, 7=high flexible part)

**Sub indicator 3: Environmental development**

- Consideration of international environmental standards are a priority of a country (1=not agree, 7=agree)
- Disposability of government subsidies for environmental friendly energy and materials (1= extensive, 7=not disposable)
- Usage of environmental management systems in companies (1=low, 7=high)

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**INDICATOR 4: Product Market Characteristics**

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**Sub indicator 1: Demand conditions**

- Total domestic demand growth (%)
- Sophistication of domestic demand (1=low, 7=high)

**Sub indicator 2: Supply**

- Extent of local suppliers (1=few, 7=many)
- Quality of local suppliers (1=low, 7=high)
- Intensity of local competition (1=limited, 7=intensive)

**Sub indicator 3: Cooperation of companies**

- Cluster development (1=limited, 7=high)
- Intensity of cluster development (1=low, 7=extensive – between suppliers, local customers and research institutions)

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**INDICATOR 5: International Business Activities (IBA)**

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**Sub indicator 1: International trade**

- International trade (% of export and import of goods and services in GDP)
- Import penetration (% of import in total industry demand)
- Intra-firm export (% in total export)
- Intra-firm import (% in total import)
- Total intra-industry trade (% in total industry)
- Intra-industry trade in high technology sectors (% of high-technology sectors)

**Sub indicator 2: Foreign direct investment**

- Foreign direct investment (% of inward and outward flows of FDI in GDP)
- Inward and outward mergers and acquisitions (% of GDP)

**Sub indicator 3: Technology transfer**

- Patents of non-residents and residents abroad per 10000 inhabitants
- Technology transfer income per capita (million US\$)

**Sub indicator 4: International portfolio investments**

- International portfolio investments (% of assets and liabilities in GDP)

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**INDICATOR 6: Institutional Framework (IFRAM)**

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**Sub indicator 1: Tax regulation**

- Tax regulation (1=bad, 10=qualitative)
- Tax income (% in GDP)
- Corporate income tax rate (%)
- Value added tax (%)

**Sub indicator 2: Financial regulation**

- Financial regulation (1=bad, 10=qualitative)
- Openness of financial system (1=low, 5=high)
- Sophistication of financial market (7=high)
- Financial-accounting standards (7=high quality)

**Sub indicator 3: Regulation of international trade and capital flows**

- Non-tariff barriers (7=low)
- Mean tariff rate (%)
- Government policy towards FDI (5=good)

- FDI protection scheme (1=bad, 5=good)
- FDI environment (1=bad, 10=good)
- Access of foreigners to local capital market (1=bad, 5=good)

**Sub indicator 4: Politics toward enterprises and competition**

- Companies setting-up regulation (1=high, 5=low)
- Freedom of competition (1=low, 5=high)
- Efficiency of anti-monopoly regulation (1=low, 7=high)
- State ownership/control (1=high, 5=low)
- Price control (1=high, 5=low)
- Number of administrative procedures for company setting-up
- Number of days for company registration

**Sub indicator 5: Environment for knowledge-based economy development**

- Innovation policy (1=undeveloped, 7=developed)
- Government subsidies /reliefs for R&D activities of companies (1=low, 7=high)
- Quality of research institutions (1=low, 7=high)
- Intellectual property protection (1=low, 7=high)

**Sub indicator 6: Labor market**

- Restrictiveness of labor regulation (1=high, 5=low)
- Hiring and firing of workers (1=high regulation, 7=low regulation)
- Wage regulation (1=high, 5=low)
- Industrial relations (1=bad, 5=good)

**Sub indicator 7: Political and legal environment**

- Effectiveness of legal system (1=low, 7=high)
- Courts independence (1=low, 7=high)
- Unfairness of government officials (1=high, 7=low)
- Courts bribery (1=high, 7=low)
- Government officials bribery (1=high, 7=low)

**Sub indicator 8: Public service operation**

- Effectiveness of government policy execution (1=low, 5=high)
- Quality of public service (1=low, 5=high)

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**INDICATOR 7: Government Role (GOVMR)**

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- Education expenditure (% of GDP)
  - Education expenditure (% of government expenditure)
  - Expenditure for social security (% of government expenditure)
  - Expenditure for goods and services (% of government expenditures)
  - Expenditures for R & D (% of government expenditure)
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## End Notes

<sup>1</sup>The highest type of technological innovation, which do not change only the products and technologies but require fundamental adjustments in organizational and socio-institutional arrangements of society (socio-institutional or mental paradigm) as well [13].

<sup>2</sup>With the view to the Porter's [41] statement, that the relative importance of microeconomic part of the economic development is increasing in the period of globalization, the indicators of macroeconomic environment have not been included among the factors of economic growth. They were included as control variables in the subsequent regression analysis.

<sup>3</sup>Comparability criteria with Slovenia are: developed countries of EU enlargement round in 2004 (Czech, Hungary, Poland), developed European countries with up to 5, 5 millions inhabitants (Ireland, Denmark, Finland, and Norway), European countries with similar GDP per capita (Greece, Portugal).

# Minimum Wage in the Wage Structures in the Slovak and Czech Republic

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## Abstract

Varied levels of minimum wage increases can be observed as well as different development in unemployment rates and wage inequality in the two countries. After initial stagnation in the development of minimum wage rates there were a series of significant increases in levels over the last few years. These legislative steps, especially in the context of a permanently increasing unemployment rate, have induced heated debate about the effects of minimum wages on employment, skill formation and the overall economy. The question as to the effectiveness of minimum wages as a policy tool, revolves around, the positive aspect of, its ability to boost hourly wage rates and, the negative aspect of, minimizing its adverse side effects on employment and skill formation.

## Introduction

After 75 years as a common state, Czechoslovakia divided into two separate nations. This occurred in 1993 and resulted in the formation of the Czech and Slovak Republics. Given their history of unity both economies had very distinct similarities in terms of economic development.

Varied levels of minimum wage increases can be observed as well as different development in unemployment rates and wage inequality in the two countries. After initial stagnation in the development of minimum wage rates there were a series of significant increases in levels over the last few years. These legislative steps, especially in the context of a permanently increasing unemployment rate, have induced heated debate about the effects of minimum wages on employment, skill formation and the overall economy. The question as to the effectiveness of minimum wages as a policy tool, revolves around, the positive aspect of, its ability to boost hourly wage rates and, the negative aspect of, minimizing its adverse side effects on employment and skill formation. If the amount of minimum wage is assessed unreasonably high than through boosting wages it can affect the whole wage structure in such a way as to subsequently cause inflation. Moreover higher wages would mean a strong cost load and would affect the investment policy of companies. Disproportionate and rapid increases in minimum wage influence the means for the creation of new job positions, the maintenance of already existing low qualified or unqualified job positions and simultaneously, badly paid jobs. The above-described situation could result in companies giving up on business activities in branches where this type of work prevails and consequently, result in unemployment. High minimum wages can also create an indirect effect on worker categories with the lowest incomes and can cause movement that would narrow the gap between low-wage earners (the first 10<sup>th</sup> percentile of wages) and middle-wage earners (the median or 50<sup>th</sup> percentile). Paradoxically, it can also dull the economic stimulation of people, or lead to a situation wherein people lose interest in working in certain professions.

The evidence as to minimum wage studies is mixed and there are still many unanswered questions. When taking into consideration the huge minimum wage increases in the case of the Czech and Slovak Republic, the following questions are worthy of investigation. How do minimum wage increases influence the labour market in both countries? How do minimum wage increases affect wage distribution?

The aim of this paper is to shed some light on some of the above-mentioned questions and evaluate the minimum wages increases in the Czech and Slovak Republics. Given the similarities between the economies and the data gathering methodologies it will be possible to analyze the varying impact of minimum wage adjustments on the labour markets of these two economies with a possible comparison.

## The Minimum Wage Policy

In 1991 a minimum wage rate was first introduced into the Czechoslovak Federative Republic Labour Code. The levels of the minimum wage were set for workers paid on both an hourly and monthly basis. *Minimum wage was understood as the lowest monetary performance that an employer is obliged to provide an employee for his/her work in compliance with the law.* The minimum wage was flat, the same for all employees in Czechoslovakia within employment contracts or in a similar work relation and it did not distinguish between an employment contract for a fixed or indefinite period, whether it is the individual's main job, overtime/additional or parallel employment contracts. No worker could receive less than the minimum wage. However, differentiated lower rates were assessed for receivers of partial or full disability benefits, and for employees younger than 18 and 16 or for young people who are within their first employment contract.

The minimum wage levels were established by law upon preliminary discussions within a tripartite system called the Council of Economic and Social Agreement (RHSD). There was, however, no formula for increasing the minimum wage and due to insufficient pressure on the part of labour unions for an increase in the minimum wage, the governments in both countries made decisions in accordance with their own needs and circumstances. The minimum wage has been the basis for calculating a number of social benefits, such as health, pension insurance and unemployment benefits. Given the fact that a percentage of the state payments to the social system was derived from minimum wage levels, it should come as no surprise that both governments were in no hurry to increase the minimum wage.

After the split of the Czechoslovak Federative Republic in 1993, both countries maintained the previous Czechoslovakian legislature, which became the corner stone for present-day Czech and Slovak legislature. This was also the case with the law concerning wages. In both countries the minimum wage is assessed by the tripartite system. The influence, however, of trade unions on the assessment of minimum wage has not changed, it has i.e. been extremely weak. Even the tripartite itself did not have any power to negotiate in this area at a nation-wide level.

In 1993 the government committed itself to updating the level of minimum wage so as to maintain a sufficient advance before subsistence wages with a simultaneous modification of wage tariffs. Such a reasonable interval was supposed to stimulate people to look for work. The government carried out this objective and in 1993 decided to increase the minimum monthly wage from 2,200 to 2,450 SKK.

The minimum wage in Slovakia had an influence on other social institutions for which it served as the basis of assessment. Most of the above mentioned links were disconnected and transferred to the subsistence wage as of April 1, 1999. Nevertheless, up until that time, there was little interest in increasing the minimum wage in the case of the Slovak Republic, see Table 2. In spite of the increase to the minimum wage in 1996, the contribution of the minimum wage towards the average earning continued to drop to the low point of 29.3 % in 1997. At that point, a series of more intensive increases to the minimum wage rates began in 1998 up until its final rate of 4,400 SKK. In this way, the percentage of the minimum wage in relation to the average wage increased to 35.9 % in the year 2000. In 2004 the minimum wage reached 6,500 SKK. The relationship of the minimum wage to the subsistence wage is also of interest. The paradox in evidence in the Czech Republic did not occur, nevertheless, the development of the minimum wage in Slovakia was not much more successful. Thus the minimum wage failed to stimulate work in Slovakia as well.

## Theory and Literature

Economists traditionally agree with the opinion that a growth in minimum wage has a negative impact on employment. This traditional view is a result of a basic simple competitive model, which assumes there are many companies in existence, and that manpower is homogenous. The model assumes that the workforce will offer more work with an increased wage whereas the marginal work product decreases with other additional units of work. These assumptions result in the declining curve in labour demand. If the directed obligatory minimum wage is above the equilibrium, market-clearing wage, employment must decrease and a certain number of employees are made

redundant. A further economic conclusion follows out of the economic theory which is that the affect of minimum wage is stronger in small, open economies. This is the case because, as mentioned above, minimum wage increases result in a higher wage cost burden for companies, which at the same time raises the costs of domestic production and decrease its competitiveness. This means, in the conditions of small open economies, the substitution for domestic production for imported and a decrease in employment.

The basic competitive model has, however, many simplifying prerequisites that are not valid in a real economy. All of these and other simplifying presumptions support the idea that the growth of minimum wage does not have to necessarily result in a decrease in the employment rate. Elimination or incorporation of other presumptions leads to models, which reject the common impacts on the employment rate. The essential study on the California fast-food industry and many other following studies strengthened this reality. Many empirical studies found that minimum wage increases might be a strong instrument for redistribution, that impact on the employment rate is not always negative and that it is necessary to seriously consider the existence of monopsony in the labour market, which may also result in positive effects on the employment rate, as was supported in some studies. The results of the studies also reveal that the intensity of minimum wage growth and especially of real minimum wages is of key importance in the evaluation of minimum wage as an instrument of economic policy.

#### **A Study Investigating the Impact of Minimum Wage on Employment**

Most empirical studies concerning minimum wage focus on youths and young adults with low qualifications, as they are the most frequent representatives of groups traditionally earning minimum wage. The research in this sphere deals especially with the impact of minimum wage on the employment of these worker groups.

Most of the studies concerning the effect of minimum wage increases on employment were carried out in the United States. The earlier research focuses on youths and young adults with low qualifications considered as the most frequent representatives of groups traditionally earning the minimum wage. All these studies have generally supported the traditional view that minimum wage has a negative affect on employment, res. unemployment amongst young people. Specifically, a 10 % increase in the minimum wage will result in a 1 % to 3 % decline in total employment of young people. For a general survey and a summary of research from these years, see Brown, Gilroy and Kohen (1982).

Later studies from the 1980's showed a far lower effect of minimum wage on employment. For example, Hamernesh (1982) investigated the variations of minimum wage through various branches of industry and discovered that a 10 % increase in the minimum wage will lead to a 1.2 % increase in unemployment of young people and that this decline will be greater in cases of industrial production. One possible explanation follows from the above mentioned theory that of the open economy theory and substitution for import.

The results of the above mentioned studies are contrary to the findings of Card and Krueger. In their controversial book (Card and Krueger, 1995) concluded that the effects of minimum wage increases are close to zero. Such results were based on a variety of empirical analyses of mainly employment in restaurants of the so called "fast-food" type, used as a natural experiment.

This approach, however, as well as the research results, was met with criticism from Neumark and Wascher (1994) who asked the question whether the method of "natural experiments" is a suitable tool for analysing minimum wage change consequences on employment. Their criticism makes use of the following arguments: firstly, this method fails in cases when including the delay of the minimum wage effect with the addition that when the delay in the consequences of minimum wage changes cannot be determined unambiguously, it can be far greater. Secondly, they object by pointing out it would be more appropriate to put the emphasis on adult workers, whose wages closely fluctuate near the border of the minimum wage as young workers are only beginning their professional career and it is consequently natural that most of them will move out of this minimum wage level quickly.

In cases of adults working at the level of minimum wage, the opposite situation occurs with mostly those belonging to low-income groups of employees for a long time period. Neumark and Wascher (1994), with the application of panel data, again using the sample of the national level but on a state level on the employment of young people. They came to the conclusion that with an increase in the minimum wage a significant decline in employment occurs. A survey of an academic debate from the 1980's and 1990's is mentioned in Table 4.

As far as Europe is concerned, a number of similar studies also exist; however, their intensity is far from

the academic debate in the United States. E.g. Bazen (1990) carried out an empirical study of the impact of minimum wage on employment in Great Britain from the macro-economic viewpoint. He applied a simulation of the impact resulting from a minimum wage, which would fluctuate at the level of half of an adult male income median. The result of this simulation was the conclusion that minimum wage would cause a decline in employment. This work, however, was highly criticised by Machin and Manning (1992), who stated that the application of a macroeconomic approach was unsuitable for an analysis of changes in relative wages. They, instead, decided to apply a micro-economic approach. They worked out a model based upon equations from which they calculated the correlation between employment change and the change of minimum wage share.

The authors concluded that there is no negative effect of minimum wage on employment and that minimum wage even had a positive effect for catering. This result was also confirmed by the study of Dickend, Machin and Mannig (1994). A recent study by Steward (2002) found, however, a slight negative employment effect of introducing a minimum wage in the UK.

In France, which has a unified minimum wage for the whole economy, similarly as in the Slovak and the Czech Republic, empirical studies exist as well. Research from the 1980's reveals, similarly as with the studies carried out in the United States, a strong negative effect of minimum wage on employment, see Rosa, 1980 and Martin, 1981. Both studies, however, were subject to sharp criticism (Skourias, 1995) concerning the shortages in statistical methodology. The studies of the 1990's, again similarly as in the United States, led to the conclusions that although the growth of a minimum wage led to strong pressure on average earnings growth, employment declined only negligibly. e.g. Dolado et al. (1996) carried out an analysis of wages and employment dynamics in two time periods of the 1980's. In the first period 1981 to 1985 the minimum wage SMIC increased relative to average earnings. In the second time period 1985 to 1989, the SMIC remained at a constant level in comparison with average earning. The authors determined moderate growth dynamics for low earnings at the beginning of the 1980's in comparison with the second half of the decade, although their results showed a certain decline in employment. Nevertheless, the authors emphasise that the different wage dynamic along with the employment effect might differ with the position in the economic cycle.

The changes in minimum wage levels in the Czech and Slovak Republic provide a unique opportunity to research their impacts on employment and wage distribution. Buchtíková (1995) carried out a simulation in an effort to answer the question as to what is the reaction of employment on an increase in wages in industry due to minimum wage growth. It is necessary, however, to take into account the short time series of the study (1991 to 1993) and the negligible changes in minimum wage over the observed time period. Furthermore, the research was based upon statistics from state companies, which is why the results cannot be applied to the economy as a whole.

From this point of view, the following study will be very interesting as these countries have experienced "jump-increases" in the minimum wage level, resulting in a longer time period at our disposal and a large data base, which allows the authors to deduce conclusions for the economies as a whole. As there are no detailed studies carried out up until now for Czech and Slovak Republics, the following study may consequently reveal certain new features in the minimum wage discussion.

#### **A Study Investigating the Impact of Minimum Wage on Income Redistribution**

As shown by many empirical studies minimum wage affects wage distribution in many aspects (Brown, 1999). Firstly, employees who would work, under normal circumstances, for lower wages than the minimum one, will in all probability be employed less or employed for fewer working hours. The loss of this low-income category for working positions leads to even more wage distribution or to downward pressure on wages, also in the case of workers who are not affected directly by minimum wage growth. Secondly, a wage increase for workers directly affected by the minimum wage level will lead to their substitution by workers who are more attractive and thus increase demand for the labour force located closely above the minimum wage level. Thirdly, minimum wage growth may lead to the so called "ripple effect" in higher wage levels as well, despite the fact that most empirical studies prove that this effect is small.

One of the first empirical studies pointing out the ripple effect was carried out by Gramlich (1976). He discovered that with an increase in the minimum wage, the wage ripple effect arises in the form of an income increase not only in low-income groups of workers, but also among qualified workers.

The existing studies by DiNardo, Fortin and Lemieux (1996) and Lee (1999), provide contrary evidence,

namely that the effect on the real value of minimum wages due to inflation in the 1980's led to the substantial dispersion of the lower part of wage distribution and a subsequent increase in the minimum wage in the years 1900-1991 called upon the pushing of wage distribution.

Machin and Maning (1994) found out, using data concerning British industry that a higher minimum wage leads to a decrease in wage dispersion.

Wage compression and increases in costs for a low qualified labour force leads to unemployment growth in this group of workers. The study by Krugman (1994) is quite well known, where high unemployment in Europe is explained as a result of wage compression. According to this paper, the labour market institutions in Europe have prevented wage imbalance growth leading to higher wage compression. In addition, the study of Blau and Kahn (1996), which investigated the difference in the entire imbalance between the United States and many European countries, contains conclusions confirming Krugman's statement. This means that the amount of minimum wage, strong trade unions and a generous social network are responsible, to a great extent, for relative wage compression in Europe.

One particular study, which is interesting from the present author's point of view, is the study by Neumark, D., Schweitzer, M. and Washer, W. (2000), which investigated the effect of minimum wage increases on wage levels, number of hours worked, employment and total income. They discovered that employees whose wages were close to the minimum wage were generally adversely effected by its increase. In contrast, the income of employees from a lower income category is increased, their hours worked and employment will decrease, and, therefore, the total effect of such changes in the minimum wage moves toward a decrease in the wages of these employees.

With performance as success indicator, the need to assess performance and benefit from the gained information has become a vital part of managerial job and a common practice in the Slovak business environment. Managers understand it as a tool to motivate their subordinates and incorporate it into activities they regularly perform. Performance is assessed on regular basis and the gained information is then used for decisions about compensation, training and development, and for setting further goals. Still, there is a gap between managerial practices of companies that have foreign capital investment and those that are Slovak (Luptáková, S. & Vargic, B., 2003).

## Data and Model

To analyse the affect of minimum wage increases on wage distribution the authors made use of the Neumark, Schweitzer and Wascher (2000) approach. Our model has the following form:

$$\begin{aligned} \Delta w_i = & \alpha + \sum_{j=1}^9 \beta_j \frac{MW_2 - MW_1}{MW_1} \cdot 100 \cdot R(w_{i,1}, MW_1)_j + \sum_{j=1}^9 \beta_j^L \frac{MW_1 - MW_0}{MW_0} \cdot 100 \cdot R(w_{i,0}, MW_0)_j + \\ & + \sum_{j=2}^9 \gamma_j R(w_{i,1}, MW_1)_j + \sum_{j=2}^9 \gamma_j^L R(w_{i,0}, MW_0)_j + \sum_{j=1}^9 \pi_j R(w_{i,1}, MW_1)_j x \frac{w_{i,1}}{MW_1} \cdot 100 + \\ & + \sum_{j=1}^9 \pi_j^L R(w_{i,0}, MW_0)_j x \frac{w_{i,0}}{MW_0} \cdot 100 + X_{i,1} \delta + \varepsilon_i \end{aligned}$$

R is a variable, newly created dummy, which determines the position of an individual wage in relation to the level of minimum wages in a basic period. The positions are determined as follows:

$w \leq 1.3$  multiple of a minimum wage of a particular year.

This is followed by intervals 1.5, 2, 3, 4, 5, 6 and 8<sup>6</sup>.

Lagged effects (L) on wages of individuals, unemployment etc. related to the increase in minimum wage from 1998 to 1999 are defined depending on where the wage of a particular employee was situated in 1999 within a determined wage distribution in relation to the level of the minimum wage in year 1. Such determination of a lagged effect is

interpreted like other interpretations when „it does not matter what the previous wage of an individual was“. This reflects a usual delayed effect when, under a condition that  $w_1 =$  for example, whether the wage of an individual was still at the level of  $w_1$  – for example, whether the wage of an individual was still at the level of  $w_1$ , or whether it was rather initiated and shifted to the level of  $w_1$  rightly due to the increase in minimum wage.

## **Concluding Remarks**

This study examined the impact of minimum wage increases on wage distribution and employment. Using the matched employer-employees dataset the authors looked at wage distribution using the model based on the Neumark, Schweitzer and Wascher (2000) approach.

The model employed arose out of the assumption that growth in minimum wages will have an influence on wage distribution of groups of employees. The results demonstrate that this effect is significant. The percentage of individuals in the wage groups near the minimum wage is increasing. With a growth in the minimum wage, the highest number from group 6 moved (five times the minimum wage) from group 5 (four times the minimum wage). The lowest wage group multiplied from 1.3 to 1.5 increased the number of persons from 0.13 % to 1.23 %, which is a very significant growth. Out of this it is obvious that the assumed influence of growth of the minimum wage has been empirically proven, even though it is probable that the number of persons in these groups was very low. On the other hand, there was a significant decrease in the number of individuals in the upper half of the wage distribution, in particular the group with six times the minimum wage and more. The curved line of the percentage of persons in the year 2002 dropped from the fifth group (four times the minimum wage) steeply downward in contrast to the gradual decrease in the year 1998.

The growth in wages was over this time period relatively high, but not high enough to compensate for the effect of the several times multiplied minimum wage over the 3-year time period observed.

### **The Effect of Growth in Minimum Wages on Wage Distribution and Wages**

In 1999, the first quite significant increase in minimum wage occurred after quite a long period of stagnation or moderate increase in minimum wage. The expected influence on wages was not manifested in principle, however, the results are varied. Estimations clearly indicate that wage increases with an increase in minimum wage for a group of employed who are either paid a minimum wage or wage just above its level (in the present case by 1.3 its multiple). The elasticity is even higher than one, which means that the increase in wage evoked by the increase in minimum wage was higher than its respective growth. The minimum wage increase effect can be demonstrated by the fact that the rate of elasticity decreases with increasing distance of wage from the beginning of wage distribution in both the periods observed by the authors. This hypothesis can also be demonstrated by the fact that a delayed effect in an increase in minimum wage in the first period resulted in a decrease in the wages of low paid employees over the next period, relative to the level of the previous wage classification. A great number of cases of statistical insignificance in most wage distributions were probably caused by the method of data panel creation. In addition, the compliance of observed values with a balanced curve of wage values is low, not even reaching 10 % in any model.

Thus, one partial result is that the increase in the minimum wage in the period of 1999 to 2000 immediately influenced the increase in the low wages of employees, and it falls or is not provable with increasing distance from wage distribution commencement. In 1998, the minimum wage was so low and separate from the real wage structure that its large relative increase in the years 1999 and 2000 had no effect on the overall structure of wage distribution but only on low wages.

### **The Effect of Growth of Minimum Wages on Hours Worked**

The results of effects of increase in minimum wage on hours worked are very unstable. Only a result for the first group of wage distribution can be considered relevant. When the minimum wage increases, employees also tend to increase their total income by increasing the number of hours worked, i.e. offering an increased amount of work. In the next year, employers respond by reducing the number of hours worked with the objective to reduce total labour cost caused by the previous increased minimum wage. This circumstance occurred in the results with a negative mark in the delayed effect. Other statistically significant results of the analysis can be considered rather the result of many other influences, which is also shown by a very low determination index.

### **The Effect of Growth in Minimum Wages on Unemployment**

A fall in employment, which was replaced by the growth or fall of regional unemployment rates in our model, is a typical effect of minimum wage increase. The statistically indicated dependence for the first group of distribution in both periods could be predicted, however, estimates are low and insignificant. A different direction on the part of its behaviour can be commonly interpreted in terms of economy; however, in two successive years it is not logical, *ceteris paribus*. The index of determination is higher than the effect on hours worked, being however, still very low.

### **Conclusion**

Minimum wage has been discussed in professional circles since its original introduction. Its existence has both undoubtedly negative sides as well as positive which are contingent upon when they were introduced, the economic situation, the labour market, and the political and societal interests. The present authors are not interested in evaluating the circumstances as to whether or not it is appropriate to introduce minimum wages. Our goal is to instead evaluate its development and attempt to analyse its influence on the labour market generally.

Minimum wages were introduced when the nation of Czechoslovakia was still in existence in the year 1991. Their level was set above the minimum standard of living and amounted to 50 % of the average wage. Over the following years, its development broke off from the development of other quantities which have a closer or wider connection with the minimum wage, that is to say the level of the average wage, the minimum standard of living for individuals and families and the level of unemployment support. Minimum wage stagnated and stopped fulfilling its social function economically as well. Not until the year 1999 did a significant turning point occur in its development when the minimum wage began to rise significantly.

Consequently, it is obvious that the minimum wage does not fulfil any of the standard functions, which were expected of it (not taking into account the function which it fulfilled or fulfils as a part out of which derived from drawing off of support). Its existence from the period of 1993 up until 1999 did not have any practical economic basis. This can be said about both countries even after their separation. There was little political or economic interest in making use of this form of redistributing pension funding. The fact that minimum wages existed, though on only a very low level, meant that it began to have a rather negative influence. It made it possible for companies to employ foreigners at cheap rates, pay extremely low wages, resulting in the fact that it was no longer advantageous for employees to offer their work on the market. Extremely low minimum wages began to mean social labour costs for the state. The present authors believe that the situation on the labour market in both countries would have actually been better in this interim period without the existence of a minimum wage. The above-mentioned negative effects would have been limited, and the positive influence of wage agreements would have increased, meaning fewer individuals remunerated on the level or barely above the level of minimum wages.

After the jump and very rapid growth in minimum wages, the situation changed dramatically in both countries. Its level however did still not reach the "standard" recommended by the European Commission, that is to say, approximately 60 % of the level of an average income. The significance of minimum wages did however increase and has begun to have an impact on more and more numbers of people, companies and organizations.

Companies will have to adapt to new conditions and will have to start to take the work effectiveness of employed individuals into consideration more than in the past, as well as the number of employees in a company, etc. It has been exactly the most recent developments in minimum wages which have made possible the examination of the influence of growth of minimum wage on wage distribution, unemployment and completed work hours. The main reason behind the employed model will be to analyse the growth of minimum wages and their influence on wage distribution, employment and completed work hours in the Czech Republic (appropriate data was not available, in the case of Slovakia, due to the extremely demanding).

The growth of minimum wage confirmed the expected influence on wages and wage distribution, though the results are somewhat uncertain. Wage distribution of employees has started to slightly undulate due to the fact that the wages of employees near the minimum wage has significantly grown and this growth decreases in connection with growing distance from the beginning of the wage distribution. This has confirmed the assumption that minimum wages were, after so many year of stagnation, so low and disconnected with the actual wage structure

that even with its rapid growth in the year 1999 to 2002, and one can add in the following year as well, it has had very little influence on the undulation of the overall wage structure.

The effect on the growth of minimum wages on unemployment and completed work hours has only become apparent for employees with the lowest wages; estimates are however few in number and insignificant. Nevertheless, the author can state that the basic direction of movement in terms of numbers of completed work hours and reactions on the part of employers has occurred according to expectations over the following period. The effect on unemployment has been at least decisive. The results are influenced by the insufficiencies caused by data pane. The authors believe however that in actual economics a more significant relationship and more decisive results for the observed variables would be attained.

Minimum wages should not be the basis for any social payments, contributions, advantages, etc. Minimum wages should be increased systematically, regularly and in connection with the development of key economic factors (the medium being the average wage with an eye to inflation and the level of the minimum standard of living). The decisive criteria for growth of the minimum wage should not however only be its percentage in relationship to the average wage and the main goal should not be an increase in its percentage share.

The level and growth of the minimum wage must reflect the level and growth of the minimal efficiency of work in companies. Non-transference of a larger percentage of the social costs onto corporate bodies, would particularly affect small and medium-sized companies.

Systematic observation of the impact of growth of minimum wages on the behaviour of low-income groups of the population must take place.

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# **Internationalising in a Remote Location: Why German Companies Settle in Perth and Western Australia**

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## **Abstract**

**Successful internationalisation hinges on the selection of an appropriate strategy and target market. This paper considers the general nature, and German specific nature of internationalisation. It furthermore refers to presence of German companies in Australia and the attractiveness of and Western Australia. The paper reports on data identifying the nature of German companies in Western Australia and their assessment of the state as a destination.**

## **Background**

Traditionally, a company will start to compete internationally by entering just one or a select few foreign markets. First experiences are often collected in a familiar environment and proximity plays a core part because cultural awareness and business exposure are likely to contribute to higher levels of success (Wild, Wild & Han 2001). Fast-paced change in the global marketplace increasingly forces companies to enter distant markets and to view business strategies from a global perspective. In approaching foreign markets, a distinction between multinational competitors and global competitors has to be made.

Multinational competitors have a deep involvement throughout the world, incorporating a worldwide perspective in management and decision making-processes (Wheelen & Hunger 1998). While a multinational industry is present in many countries, competition occurs on a country-by-country basis (Wild, Wild & Han 2000). According to Bowman and Asch (1996), successful competition depends on the ability to respond effectively to changes and opportunities arising in the local marketplace, i.e. localisation or acting local.

Global competitors in turn operate with resolute constancy as if the entire world were a single entity (Levitt 1983). Forces for becoming a global competitor are stronger when competitive conditions across national markets are linked sufficiently to form a true international marketplace and when leading competitors compete head to head in many different countries (Thompson & Strickland 2001). Global industries, in turn, are a series of linked domestic industries in which rivals compete on a truly worldwide basis (Porter 1986).

The distinction between multinational and global competition impacts the choice of an international expansion strategy. In a multinational industry, competing internationally is discretionary, and a firm can choose to remain domestic or expand internationally. Ideally, the international strategy comprises of a series of domestic strategies, as subsidiaries abroad should control important local activities, enjoy a high degree of autonomy and be guided largely by the circumstances in that particular country. Porter (1987) refers to this phenomenon as 'country-centred strategy'.

A firm operating in a global industry, on the contrary, must attempt to integrate its activities on a worldwide basis to capture the existing linkages among countries. Its international activities have to be regarded as an overall system, while maintaining some country perspective. According to Porter (1986), the balancing of these two perspectives becomes one of the most essential tasks in a global strategy. In a multinational competition, rivals vie for national market leadership. In globally competitive industries, rival firms vie for worldwide leadership. All this impacts on the strategic approach to compete in foreign markets (Thompson & Strickland 2001). A core aspect of the strategic approach impacted by the choice of competitive strategy is the target market selection.

## Target Market Selection

After a company has made a decision about how to approach foreign markets, the decision about which countries to enter and what specific entry strategy is appropriate for each country needs to be taken. Overall, risk diversification and the limiting dependency on a few markets are two of the main rationales for companies to globalise.

A company needs to identify the market that offers the greatest potential by considering individual characteristics of each market. In a multinational strategy, it is also important to analyse to what extent foreign markets are integrated with others or how geographical issues can facilitate the establishment of a group of countries that are linked within a certain region.

According to Fletcher & Brown (1999), it is necessary to compare a vast number of markets in order to identify the most promising one. The quality of data used for decision-making varies from country to country and recency, rigour and restrictions of data need to be assessed in each specific case.

Various approaches to selecting a promising market are available, each based on different criteria for market attractiveness. A market may be regarded as attractive because of the following attributes (David 1997; Fletcher & Brown 1999; Thompson & Strickland 2001):

- Customer demand for the company's products
- Resource access
- Cost savings in manufacturing due to cheaper labour costs than in the firm's domestic market
- Governmental incentives, such as tax holidays, subsidies etc.
- Higher profit opportunities
- Securing an enlarged customer base to earn economies of scale

The destination selected will address the most prominent issues for the company contemplating internationalisation. These issues will most likely differ from industry to industry and be influenced by national business culture attributes. The next section briefly considers aspects of German business internationalisation.

## German Internationalisation

German-style business indicates culturally embedded practices and principles employed within Germany. Behavioural and institutional aspects of the German business system have been combined in an integrative fashion in order to provide a realistic picture of the German business environment and systems. Glunk, Wilderom and Ogilvie (1996) summarize the German business environment as a consistent pattern of business-related practices built around a 'competence first' principle. German companies continuously invest in human resources, with an emphasis on technical and professional competence. This, together with a strong quality and innovation orientation, seems to be the pillar of German-style management. The remaining features such as effective and harmonious labour relations and formalised production management tend to fill a supporting role or are logical outcomes of central features such as loyalty of managers and the unique economic system that prevails in Germany.

German companies have retreated from their initial traditional industries of coal mining and ore processing, moved into heavy industry and allow for restructuring for growth in the service sector, information technologies and telecommunications (European Australian Business Council, 2001). Germany has transformed into a high-tech country, with technology industries being of great importance for the nation's further economic well-being.

The global orientation of Germany's economy represents the foundation for economic growth and stability (Möbius, 2000). German companies have relatively early recognised the need to expand outside Germany, described as "a mighty export tradition that has meshed with the need to reduce the inflexibility and expense of producing in Germany" (The Economist, 1998, p. 60). Dorrenbacher (2000) adds that a recent compilation of data on the internationalisation of the 100 largest German companies has found that it is difficult to find a strictly national company, as even most of the utility companies are to some extent active in foreign markets.

As a result of the global orientation, German companies hold significant market positions in international trade, particularly in industries such as machinery, motor vehicles, electrical engineering and chemical products.

These positions in world markets are based on the efficiency to conduct business, competitive strengths in key industries and a favourable reputation abroad by the positive image of 'Made in Germany', as discussed hereafter

German companies have been present in the international arena for a long time. German-based companies in sectors of mechanical and electrical engineering, automobile and chemical industries are well-known and recognized around the globe (Federal Ministry of Economics, 1992). It is, however, important to note that a large contingent of small- and medium-sized companies is decisively salient to Germany's appearance on the international stage. These companies form the *Mittelstand* and account for half of the country's Gross National Product. The names of these companies are less known, but they play a salient role in Germany's presence worldwide as the majority has expanded their focus outside of Germany.

## **Destination Australia**

Traditionally German companies have a strong and reputable presence in Australia as a geographically distant market. Germany's Federal Minister of Economics, Dr. Werner Müller (EABC 2001), relates the presence of German companies to the advantages that Australia offers. Australia's positive business climate, its image of an internationally competitive high-tech location, its reputation as a commodities supplier, and the cultural environment creating a feeling of being 'at home' transform Australia into an attractive marketplace. In addition, German firms increasingly view Australia in terms of a regional business perspective, i.e. a base from which to operate throughout the Asia-Pacific region. Australia itself is one of the largest Asia-Pacific markets, but additionally offers a link to Asia for German companies.

Müller (EABC 2001) goes on to raise the point of the history of German-Australian partnership, dating back to the first years of European settlement in Australia and still going strong. The trade partnership between the two countries traditionally favoured Germany, as German exports increased significantly in recent decades, while Australian exports remained rather stable (GACIC 2000).

In 1999, German direct investment in Australia amounted to 7.23 billion DM, equivalent to approximately 5.9 billion AU\$ (GACIC 2000). German subsidiaries in Australia (50 percent or more German control), number 325 companies while a further 470 regional branches throughout Australia increase the number of German-owned multinational establishments to around 800. Location wise, New South Wales is the most attractive state for German companies. Of the 325 subsidiary companies, 173 firms have their headquarters in New South Wales while 126 companies operate from a base in Victoria. The other states prove to be less popular with German investors, with Queensland, Western Australia and South Australia only attracting eight each and Tasmania two companies.

Almost three quarters of all German companies employ fewer than 100 employees and only twelve subsidiaries employ more than 500 people. GACIC (2000) states that Siemens Australia Ltd. is the largest German company in Australia, with 2,300 employees in their manufacturing operations in Melbourne. Overall it is estimated that German companies jointly provide approximately 35,000 workplaces throughout Australia, increasing by a further 30,000 jobs when considering flow-on jobs with suppliers, the service sector and other sectors.

The year of foundation or acquisition is another relevant statistic in analysing German business presence in Australia. Prior to 1960, eleven companies were established in Australia, compared to some 800 in 2000. The strongest growth in number of businesses being founded or becoming German by means of acquisition has taken place between 1986 and 1990 and again since 1995 (GACIC 2000).

A significant number of small- and micro-sized German-owned companies are present in Australia. Not only well-known global players operate in Australia, but also a number of companies founded by German entrepreneurs or established by less-known German companies can be found across Australia. These companies are not necessarily members of the German-Australian Chamber of Industry and Commerce, but do play a vital role in the German business presence in Australia. Throughout the project a number of less-known German companies were identified in Western Australia.

## ... And Western Australia

Western Australia and Perth as its capital is one of the most remote cities in the world. With a population of about 1.3 million people, Perth is about 3000 km from its nearest city, Adelaide. In the regional context Perth is nearer to Jakarta and Singapore than it is to Sydney. In addition, Western Australia as a state stretches about 3000 km from north to South. The state is characterised by a fair amount of mining activities, predominantly towards the north, and agriculture towards the south. Services, distribution and mining and agriculture associated activities are centralised in Perth, which in itself can be several hundreds or thousand km from the operational activities. The question is thus how this environment positions itself to attract foreign investment and involvement.

Regarding the specific role of Western Australia (WA), the German Ambassador to Australia describes the state as dynamic and competitive, playing an important role in Australia's economy as a whole. The Ambassador states that WA's share in the relationship between Australia and Germany is significant, as German chemical and engineering companies have long been aware that especially WA is offering good conditions for investment projects, partly due to its rich resources (WAGBA 2001). In addition the WA economy is diversifying rapidly, moving away from traditional industries into innovative technologies and evolving new industries.

The attractiveness of the WA market possibly influences the internationalisation of German companies. Transformed into a question this becomes: why did German companies invest in WA and what are current issues that continue to prove WA's attractiveness to foreign companies? A number of publications associated with the WA Chamber of Industry and Commerce and the WA Government's Department of Industry and Technology supply a framework why WA is an attractive market for investors. The advantages outlined have to be regarded cautiously as these institutions in nature attempt to promote and thus convey a very positive opinion of their own business environment.

The slogan adopted by the Western Australian government is that WA is "Australia's economic driver" (Government of WA 2001, p. 2). In addition, Bode (2002) highlights several aspects on the expected growth potential of the WA market. This, and a number of sources, including Commerce & Trade News (various issues 2000), Doing Business with WA (2001), WA – Open for Business (2001), and Western Australian Business and Investment Gateway – (online) jointly argue why WA is an attractive destination. The arguments put forward include the following:

- A highly skilled population  
The WA workforce of about one million has educational and technical skills among the highest in the world. Almost half have post secondary or tertiary qualifications and two-thirds have completed the highest level of secondary education. WA aims at establishing itself as an international knowledge hub; an exporter of education services to international students; and a key provider of education infrastructure and support services.
- A stable economic and political environment  
WA has a stable system of governing and a sound, well established legal framework, providing the basis for a secure and confident investment culture.
- Lifestyle  
WA is characterised by a tolerant and open lifestyle, high standard of living and a moderate climate, all of which contribute to employee motivation
- Gateway to South East Asia  
The capital of WA, Perth, is a preferred location for a number of international companies choosing a regional base for South East Asia. Perth shares a time zone with many Asian centres, enabling contact during normal office hours. In addition, Perth's proximity to Asia reduces the transport and distribution costs of goods to Asia.
- Energy State  
WA is also often labelled 'the Energy State', being the most productive producer of oil and gas in Australia and the Asia-Pacific region. In addition, WA promotes the establishment of strategic partnerships for research, development and investment in areas such as solar, wind, and tidal power, biodiesel, fuel cells and gas-to-liquids technology. This in turn has led to large and sophisticated infrastructure and service industries to support the energy sector.

- Increasingly diverse economy  
WA actively pursues a policy of developing and implementing 21st century industries and technologies. Expertise range from bio-science to new digital content industries; exports range from ferries to smart cards, and pharmaceuticals to construction skills.
- Government support  
The state government's main objective is to offer an environment in which businesses can grow and prosper. Initiatives include the introduction of prospective investors to major international businesses present WA providing a gateway to government programs and investment opportunities in industries such as biotechnology, educational services, wood processing and information and communication technology.
- WA's 'culture of innovation'  
WA recognises that innovation is a key to sustaining competitiveness. The State Government fosters innovation through a focus on:
  - Creating a supportive environment
  - Encouraging exchange of new ideas and knowledge
  - Developing infrastructure required to enable world-class innovation
  - Establishment of university-based centres of excellence for focused research and development
  - Improving the skills of public and private sector research and development personnel in commercialising research
  - Promoting the opportunities created by the internet and e-commerce
  - Ensuring that WA has world-class communications infrastructure.
 The aim of these initiatives is to ensure a sustained competitiveness for the state as a destination.
- Infrastructure and cost  
Perth is considered to be an attractive and affordable location, with office rentals, business inputs and living costs among the lowest in the nation and lower than major business centres in Asia and around the world. In addition, Perth offers comprehensive air, land and sea transport systems and services for both people and freight, making it an attractive location with inter-continental connections to Asian countries and markets.  
The above points supporting WA as a destination are argued from a local government's perspective. The following section reports on data derived from a survey amongst German businesses in WA.

## The Project

The data relevant to this paper reflect the collection of primary data by means of a questionnaire based on a Likert scale and basic statistical interpretation. The first section covers demographic data including size (turnover or number of employees), nature of activities and geographic location and foundation or German association dates. The nature of Western Australian operations is interpreted based on ownership, the composition of workforce and the nature of management. The questionnaire also addressed issues of the nature of WA as a destination for German companies.

Suitable respondents were identified from both the Western Australian-German Business Association (WAGBA) and the German-Australian Chamber of Industry and Commerce membership lists. In addition, electronic media such as the internet also attributed a number of respondents. In total, 138 companies with a German identity in WA were contacted of which a total of 62 valid responses were received

### Demographics and Activities

Responses to the question on the type of product/service respondents are involved in are summarized in Table 1. Of the companies operating in WA, Perth dominates (57 or 92.3%) as a location, with 3 firms stating operations in the Goldfields/Esperance region and 1 each in the South-West and Kimberley regions.

Table 1 indicates that the alternatives of the nature of the business were slightly inappropriate as 17 (27%) respondents selected the 'other' option. Respondents in this group indicated a diversion of sectors including legal services and IT implementation to telecommunications. The second largest group of respondents is in 'manufacturing' (14 respondents or 23%) and 'engineering' (12 respondents or 20%).

TABLE 1: TYPE OF PRODUCT/SERVICE

n=62				
Mining	Agriculture	Manufacturing	Engineering	Consumables
2 3%	1 2%	14 23%	12 20%	4 6%
Retail	Transport	Maintenance	Education	other
6 10%	4 6%	2 3%	0 0%	17 27%

TABLE 2: MAIN FUNCTION IN WESTERN AUSTRALIA

n=62				
Sales office	Manufacturing plant	Service/repair unit	Distribution of German products	Other
33 53%	5 8%	10 16%	13 21%	1 2%

The main function of the respondents in WA is reflected in Table 2. Of the 62 respondents that operate in WA, 33 (53%) indicate to be sales offices. In addition, 13 (21%) distribute German products and 10 (16%) are servicing and repair centres. Manufacturing is the main activity of 5 respondents (8%).

TABLE 3: NATURE OF COMPANY IN AUSTRALIA

n=62					
Licensed manufacturing	German Entrepreneur	Contract manufacturing	Joint venture	Strategic alliance	German-owned subsidiary
1 2%	4 6%	3 5%	6 10%	5 8%	43 69%

The nature of the company, as indicated in Table 3, is not restricted to WA but rather refers to the overall presence in Australia. A majority of 43 respondents (69%) indicates the company to be a German-owned subsidiary. In addition, 6 respondents (10%) are part of a joint venture and 5 (8%) are part of a strategic alliance while 4 (6%) indicate that the company is owned by a German entrepreneur. Contract manufacturing fits the identity of 3 respondents (5%) while 1 (2%) conducts licensed manufacturing for a German company.

The size of respondents is reflected in both annual turnover and the number of employees as shown in Tables 4 and 5 respectively.

TABLE 4: ANNUAL TURNOVER (million AU\$)

n=62				
W. Australia	< 0.25	0.25 - 1	1-5	>5
	12 19%	9 14%	15 24%	26 42%

TABLE 5: NUMBER OF EMPLOYEES

n=62				
0-5	5-20	20-100	100-500	>500
7 11%	16 26%	23 37%	13 21%	3 5%

The annual turnover of companies in WA shows that 26 respondents (42%) indicate a turnover of more than 5 million AU\$. One quarter of the respondents (15 or 24%) fall in the category of 1-5 million AU\$ turnover while 9 (14%) companies achieve annual turnover levels of 0.25-1 million AU\$. The remaining fifth of respondents (12 or 19%) states annual turnover to be less than 250,000 AU\$.

Table 5 indicates that the largest group of respondents (23 or 37%) employ between 20 and 100 employees while a quarter 16 or 26%) employ between 5 and 20 employees. In addition, 13 respondents (21%) indicate to employ between 100 and 500 staff, 7 (11%) employ less than 5 people and only 3 (5%) respondents have more than 500 employees in their Australian operations.

#### Western Australian Market Issues

Table 6 indicates the attractiveness of WA as a market and investment location for German investors.

TABLE 6: ATTRACTIVENESS OF THE WESTERN AUSTRALIAN MARKET

	n=62					
	Disagree		Neutral	Agree		
	Totally	Somewhat		Somewhat	Totally	
a) Skilled workforce	0 0%	2 4%	31 50%	24 39%	5 8%	
b) Stable environment	0 0%	2 4%	14 22%	29 46%	17 28%	
c) Market opportunities	0 0%	2 4%	8 13%	37 59%	15 24%	
d) Gateway function	7 11%	11 17%	15 24%	20 33%	9 15%	
e) Resource base	6 9%	6 9%	23 37%	16 26%	11 18%	
f) Diverse economy	0 0%	8 13%	37 59%	16 26%	1 2%	
g) Government assistance	7 11%	12 19%	30 48%	12 20%	1 2%	
h) Culture of innovation	2 4%	12 20%	26 42%	20 32%	2 4%	
i) Affordable location	0 0%	7 11%	20 33%	29 46%	6 9%	
j) Expected future growth	0 0%	7 11%	12 19%	33 54%	10 17%	
k) Competitive pressures	0 0%	4 7%	37 59%	19 30%	2 4%	

From Table 6, the following can be concluded:

- Half the respondents (31 or 50%) have a neutral stance to the workforce while 29 respondents (47%) label WA's skilled workforce as being an attraction.
- Nearly three quarters of respondents (46 or 74%) regard WA as a stable political and economic environment. Of the remaining respondents, 14 (22%) judge this factor neutrally.
- A total of 52 respondents (83%) indicate that the WA market can offer opportunities to German investors while 8 respondents (13%) indicate a neutral opinion with regard to market prospects. Another 2 (4%) state that WA cannot offer market opportunities to their respective companies.
- The role of WA as gateway to Asia appears to be less clear cut among the respondents. Although 7 respondents (11%) totally disagree with the function of WA as a gateway to other markets, 9 (15%) totally agree. In addition, 11 respondents (17%) somewhat disagree, with 15 respondents (24%) taking a neutral stance and 20 respondents (33%) somewhat agreeing.
- A total of 12 respondents (18%) somewhat disagree that a large commodity resource base makes WA an attractive market, with 6 each for 'totally disagree' and 'somewhat disagree'. A neutral stance is taken by 23 respondents (37%) while 27 respondents (44%) argue the importance of the resource base.
- It appears that respondents do not consider WA as a diverse economy as a majority of 37 companies (59%) hold a neutral view of this issue. Furthermore, 8 respondents (13%) somewhat disagree with the statement that WA's economy is diverse while 16 firms (26%) somewhat agree.
- A group of 12 respondents (19%) somewhat disagree and 7 respondents (11%) totally disagree that assistance and incentives granted by the WA government transform the state's market into an appealing investment opportunity. On the other hand, 12 respondents (20%) somewhat agree with the statement, while nearly half of all respondents have a neutral opinion of the role of government (30 or 48%).
- The presence of a culture of innovation in the WA economy is deemed an important factor by 22 respondents (36%) while 14 respondents (24%) label this characteristic as unimportant.

- WA is seen as an affordable location by 35 respondents (55%). At the same time, 20 respondents (33%) have a neutral stance and 7 (11%) disagree that WA is an affordable location.
- A vast majority of respondents (43 or 71%) indicate that growth prospects for WA contribute as an attractive aspect. Of these, 33 respondents (54%) somewhat agree and 10 (17%) totally agree. Only 7 respondents (11%) view expected future growth as not an attractive aspect of WA while 12 respondents (19 %) hold a neutral view.
- About two thirds of respondents (41 or 66%) do not perceive competitive pressure to make WA appealing to foreign investors. A total number of 19 respondents (30 %) somewhat agree that competitive pressures are a benefit to WA markets.

## Conclusion

The presence of a foreign organisation in a heavily biased remote market has its unique set of dynamics. The Western Australian environment is dominated by natural resource players while its location is nearer to Asian capitals than other major Australian cities. Although organisations with a German association in Western Australia are predominantly service and sales oriented, the majority is fully German owned and reflects SME characteristics.

The choice of Western Australia as a destination is influenced mostly by the market opportunities, stable environment and expected future growth. This is somewhat supplemented by a reasonable resource base and skilled workforce. The function as gateway to the region and the presence of a culture of innovation is relatively balanced while government assistance is the smallest factor for settling in WA.

In the case of WA, the presence of German companies is dominated by the unique market conditions and availability of natural resources and the flow-on thereof.

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# Government's Role in Promoting Alternative Energy Sources in India

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## Abstract

This paper is an empirical examination of the role of the government in promoting Photovoltaic (PV) systems in the context of a developing country. Primary research was conducted in the hotel industry in India as it is not exempt from the detrimental effect of frequent scheduled and unscheduled power-cuts. A structured questionnaire was used by a prestigious market research firm in India to collect the data from a sample of 205 hotels located in different parts of India. Empirical results show that majority of the respondents have emphasised that the initiatives taken by the government is very important to fostering the commercialisation of PV systems. Therefore, the government should play a leadership role in regards to policy development, legislation, fund mobilisation, institutional support, tariff formulation, training, information dissemination and education. A variety of government initiatives are required to stimulate a 'market pull' for alternative energy sources.

## Introduction

India like other developing countries faces a tremendous challenge in meeting its domestic and commercial energy requirements. Approximately a third of the world's population still do not have access to electricity. The annual demand for electricity in developing countries is expected to grow at 4.6%, which is higher than the projected global demand for electricity estimated to grow at 2.8% per year [1, 2]. India has the opportunity to move towards alternative energy sources to meet its energy requirements as power from solar photovoltaic (PV) systems offers effective and viable solutions to bridge the energy gap. Solar photovoltaic energy is one of the special-purpose decentralized forms of power-generating units that the Ministry for New Energy Sources is trying to promote to try and alleviate the power problem in the country. The way forward is to adopt the 'sustainable energy path' which requires the formulation of a national master plan. This plan needs to be supported by appropriate policy, legislative and regulatory measures. The measures that are required to foster the promotion of alternative energy sources are inextricably linked to the support that renewable energy technologies (RETs) require at the national level and at the state level. Hence, this paper discusses the support that RETs require, and once these mechanisms are in place it will undoubtedly help the cause of solar based photovoltaic (PV) systems too.

The traditional electricity production, distribution and transmission systems in India are characterised by highly centralized generation, costly grid systems and poorly managed State Electricity Boards (SEBs). To a large extent developing countries are dependent on grid supply of electricity. The beneficiaries are largely the urban and industrial sectors because the vast majority of the population still live in rural villages [2]. There has to be a big shift in power generation and distribution from the traditional approach to alternative modes such as decentralized PV systems. Long-term benefits of this include reducing the cost of supplying energy and related services, reducing emission of carbon dioxide and other pollutants. Further, users and commercial establishments will have access to reliable, continuous supply of good quality power. Policy measures and corresponding mechanisms should seek to remove the barriers for the commercialisation of technologies such as PV systems [3]. The modular characteristics of PV systems enable them to readily function as a decentralized system. Therefore government initiatives should address restructuring the prevailing centralised system and encourage power generation through alternative renewable energy technologies such as decentralized PV systems.

This paper is the result of research efforts to empirically examine the role of the government in fostering the

adoption of alternative energy sources such as PV systems, in the context of a developing country. This paper commences with an integration of the research findings in the areas of renewable energy technologies and the diffusion of photovoltaic technology. The methodology section includes a discussion on the sampling methods used, operationalisation of the variables, and the methods employed to collect data. Analysis of the data provides empirical evidence to the role of government initiatives in fostering the adoption of photovoltaic technology in a developing country, India.

## Literature Review

Photovoltaics (PVs) have attracted increased attention in the recent years. Since 1954 photovoltaic technology has progressed in leaps and bounds. Improvements in efficiency, progressive reductions in cost and increasingly high reliability have contributed to the expansion of PV technology globally [4]. PVs are commonly cited as one of the 'bright lights' for future electricity generation and they have many advantages over other energy technologies [5]; e.g.,

- PV systems are dependable, reliable and they have a long life often with a lifespan of about 20 years. Many of them have a guarantee of at least 10 years [2, 6-8].
- They are simple to install and easy to maintain. Since PV systems are modular, they facilitate easy installation at a site where power is needed [6, 9].
- Construction of PV systems can be very quick. Hence there are almost no interest payments during construction or extended start up period for a purchaser [8].
- PV systems can be designed to fit specific needs and because of the proximity between supply and demand, distribution losses are minimal. Since PVs are a modular technology, arrays can be built to suit any application [9, 10].
- PV systems have low operation and maintenance costs. Even large sites are unmanned and there are no consumables [6-8].
- PV systems have diverse uses and are able to provide economical power to applications as diverse as calculators, wristwatches, telecommunications, satellites, remote industrial applications and remote communities. They are capable of providing power from less than 1 watt to many megawatts [9, 10].
- PVs are cost-effective for numerous applications in remote locations [7] and peakpower generation where demand matches solar insolation extremes [11]. PV systems in remote areas compare favourably in cost with diesel generators and with national grid extensions [9]. The world's largest solar powered microwave systems through the northwest of Western Australia are now into their third set of batteries and have outperformed their diesel counterparts in cost, maintenance and reliability [12].
- PV systems are flexible. They can be used to meet the immediate demands as well as being modified for unusual surges in the demand. By comparison a conventional grid is not very efficient in handling demand fluctuations. They can be applied with a power inverter to nearly any end-use. Coupled with a battery back up, they are capable of providing power on a continuous and indefinite basis.
- PV systems emit no pollution. They do not emit any fumes and they do not contribute towards acid rain or the greenhouse effect. PVs are a clean energy provider [2, 6, 7, 11].
- PVs have no moving parts, need no fuel transport and no ill-health effects result from their use. No other electricity-generating technology has lower risk in terms of accidents, pollution or ill effects to humans or the ecosystem [5, 6].
- PV systems have shown good performance reliability [6, 8, 9].
- The voltage produced by PV modules is quite constant and there is little variation with changing solar radiation intensity; therefore PV systems are suitable for storage using batteries. The stored energy, then, can be used at night [7].

### Government Initiatives

The government can play a leading role through the formulation of favourable policies, by showing a practical commitment and by enhancing public awareness of the potential of PV in all walks of life. Often, the majority of the

people constituting the potential market are unaware of the existence and systems' capabilities of PV technologies [13]. The lack of information about renewable energy benefits, economic and financial costs is a major barrier to adoption [14]. The government should assume the responsibility for creating awareness among the industry and public about the benefits of PV. It could disseminate information pertaining to the environmental and other benefits of PV with a view to educating the public [15]. This can be achieved through a variety of ways including advertising campaigns, PV documentation programs that reach the people through radio, television, newspapers, highway billboards and setting up demonstration sites [9]. It is reported that the publicity and awareness campaign undertaken in Zimbabwe generated an awareness and demand for solar systems in the country [16].

According to Adurodija [9] the government could establish a financing system, which favors PV diffusion, and also provide financing and access to affordable credit line plans in order to convert potential users into actual users. The government could promote the development of the local PV market by encouraging local manufacturing of PV components and the removal of constraints on the market growth. This can be achieved by providing temporary tax exemptions for the purchase of PV equipment. Additionally allowing duty free imports of solar equipment, components and appliances would help in lowering the initial costs of PV systems. It is widely regarded that the high initial costs of PV systems often slow down the growth of the PV market. Hence any measure taken by the government to lower the initial cost of PV systems is a step in the right direction.

At the national level the government could establish a strong scientific, technological and industrial development program with the active participation of national and international developmental agencies. The government can also support and promote national Research and Development institutions. It can use the purchasing power of the state to obtain resources for PV research programs. It can facilitate the forging of collaboration and technology transfers, and render institutional support for local and international research institutions [9]. Additionally the government can also consider providing incentives for research and development [15].

Another option before the government is to attract foreign investment in the production of PV systems. In order to do this successfully it is necessary for the government to create an appropriate economic and political climate. The progressive removal of barriers to foreign investment and the easing of restrictions for the import of PV technology has led to the establishment of joint ventures between Indian and foreign companies [17]. The government should adopt measures to promote local industries and contractors by encouraging them to take an active role in the production and promotion of PV technology. The government could ensure a healthy market by restricting monopolies, fostering the development of standards and developing codes of practice [9].

The success of the wind energy program in India is attributed to the proactive policies of the Ministry of Non-Conventional Energy Sources [18] in the Government of India. The key elements of this program include wind resource assessment, government-sponsored demonstration projects, awareness creation and providing operating experience to industry and State electricity boards (State-run utilities). Incentives were made available to wind-power plant entrepreneurs which included tax concessions such as accelerated depreciation, tax holidays, customs and excise duty reliefs, soft loans and liberalized foreign investment procedures [19].

Government intervention for fostering the diffusion of renewable energy technologies include provision of: information to consumers and manufacturers, tax benefits, subsidies, credit services and direct support of the distribution system [13, 14]. In an effort to promote the use of solar systems the government should also publish the results of comparative analysis of solar systems and conventional systems [15]. Government intervention, therefore, is necessary in a number of ways to promote solar energy [20].

#### **Subsidies**

Technologies such as grid power and diesel generators have enjoyed a series of subsidies such as tariff support, tax holidays in both developed and less-developed economies [13]. It has been argued that incentives, which include tax concessions such as accelerated depreciation, tax holidays, customs and excise duty reliefs, soft loans and liberalized foreign investment procedures, will foster the diffusion of renewable energy technology [19]. Likewise, [13] believed that governments should consider subsidies for PV technologies in order to stimulate the PV market. In the initial stages of market development the government should examine using international tenders to supply quality equipment at subsidized price; such subsidies could be phased out as the price of PV system falls [9]. The government has a key role to play in not only providing fiscal incentives and subsidies but also ensuring that an appropriate institutional framework is in place to accelerate the commercialization of PV systems.

### **Institutional Framework**

Despite the work done by the Ministry of Non-Conventional Energy Sources over the years, PV technology is still new to India. There is a greater thrust that is required to promote the use of PV systems as an alternate source of power supply. The industry is relatively new and therefore the existing market infrastructure which includes marketing networks and support systems needed to provide the required after sales service and ongoing maintenance needs to be strengthened [21, 22]

There is a need to develop system standards for all the main system components. Standards are required to be established for certification or qualification for designers and installers. Establishing performance standards for PVs, establishing independent testing centres and government endorsing of solar systems are measures that will serve to boost the confidence level of PV users [15]. Standards are necessary to guarantee the satisfactory performance of solar systems and to ensure the high quality of installations. The standards are set with the assistance of industry and the Standards Association of the respective country. These standards, then, are used while inspecting the systems that have been installed [16]. In addition to specific PV standards, each country has regulations governing the connection of independent generators to the utility grids. These regulations are often inappropriate for PVs and, therefore, have to be revised.

The absence of institutional frameworks and legal structures that create the proper climate for investments in renewable energy have been barriers in many countries [23]. India is among the few countries which has a separate government department to accelerate the deployment of renewable energy technologies. The Ministry of Non-Conventional Energy Sources [18] is responsible the development, production and utilisation of PV devices in India [17].

### **Lack of Strong Private Sector Participation**

The slow rate of participation of the private sector in the renewable energy sector is because of issues relating to economic viability and inadequate infrastructure to support this industry [24]. An interesting development is the 'Photovoltaic Market Transformation Initiative' (PVMTI) which is designed to increase the participation of the private sector in market development activities leading to creating and sustaining new markets for PV systems. The PVMTI has been initiated in India by the International Finance Corporation (IFC) and the Global Environmental Facility (GEF). An estimated USD 15 million is available under this initiative to provide long-term low interest loans to companies and to refinance consumer credit schemes. In an effort to support market development initiatives the fund provides a one time grant of up to 10% of the loan to cover costs associated with Market development [22, 25].

The private sector needs to view PV systems as alternative solutions to the problem of power shortages, power-cuts and erratic power supply. They need financial support, fiscal incentives and technical know-how for installation, operations and maintenance. Firms that use PV systems for captive consumption need to be assured of reliable performance, service guarantees and adequate warranties. This is required to minimise the perceived risk and uncertainty associated with PV systems since the technology is new. Financial institutions and IREDA can assist the private sector by developing financing instruments which render PV systems to be operationally viable. The government and SEBs need to provide the required policy, legislative and regulatory framework. The combined effort of the government, financial institutions and the private sector will lead to the much needed strengthening of the infrastructure in the power sector in India [26].

## **Methodology**

### **Data Collection**

The Directory of Hotels and Resorts in India was used as the sampling frame as it provided a comprehensive listing of the target population. The mail survey method of data collection was adopted initially to obtain the primary data for this study since it was less expensive and more time-efficient than telephone and personal interviews. A mail survey was advantageous in that it reduced interviewer bias and social desirability bias. Besides, it was considered that mail questionnaires could reach a geographically dispersed sample simultaneously and were relatively low in cost compared to personal interviews. Self-administered questionnaires that were mailed to respondents gave them

the flexibility of filling it out when the respondents had time. Anonymity of the respondents also could be maintained and, therefore, respondents were considered more likely to provide accurate information [27].

The chief concern about this method was the problem of response rate, which traditionally was regarded as being low for mail surveys [27, 28]. The following steps were taken to increase the response rate:

- *Cover letter*: The questionnaires were mailed to the respondents along with a covering letter. The covering letter introduced the researcher, the nature and scope of the study, and the purpose of the study. The assurance of confidentiality was also emphasized in the cover letter.
- *Incentive*: In order to encourage respondents to participate in the study, an incentive in the form of summary report of research findings was also offered to the respondents.
- *Local Academic contact*: In order to establish a higher credibility for the study and to facilitate return of the completed questionnaires to a local address in India, it was decided to enlist the help of a local academic in India who willingly agreed to help the researcher in this regard. The respondents were requested to mail the completed questionnaires back to the academic's contact address via the mail-back envelopes that were provided.

The questionnaires were administered through a mail survey, which is very common in industrial marketing research [31]. The mail interview package consisted of the outgoing envelope, cover letter, questionnaire and return envelope. A summary report of the findings was also offered as an incentive. These are the common elements of a typical mail survey [32]; however, out of the 769 questionnaires that were mailed only 25 were returned yielding a very low response rate of 3%. The response rate was very low despite the respondents being requested to mail the questionnaires back to the address of a local academic in India. The response rate for the follow up mail out was no different.

Marketing Research firms and trained interviewers are frequently used to collect data and administer questionnaires in research settings [33-45]. Personal interviews are the dominant mode of collecting survey data in many European countries such as Switzerland, newly industrialized countries (NICs) and developing countries [28]. Personal interviews are used extensively in research [46-55]. Because the response rate to the mail survey was so low it was decided to administer the questionnaires through a team of trained interviewers in India. Although this method of administering the questionnaires is expensive, it was adopted in view of the time constraints and the need for high quality data for the current research.

The following steps were taken to get the best out of this research – correct selection of the population from which the sample is drawn, adopting random sampling techniques, having an adequate sample size, having professionally trained interviewers, having clear and objective survey questions in the questionnaire and ensuring that the researcher has no vested interest in the survey results. These are in accordance to the criteria recommended by Pollock & Ryan [41] to get the most from any research.

The hotels in the sampling frame were categorized according to their star ratings and adequate care was taken to ensure a representative random sample. The sample size was 205 and was spread across six Indian cities covering the different regions of the country using stratified sampling technique. The data was finally collected from the hotels using a structured questionnaire by a prestigious market research firm in India. Multi-item scales were resorted to and the development of multi-item scales was based on the underlying theory of the construct being measured.

#### **Operationalisation of the Variables**

Government initiatives refer to the actions that are required to be taken by the government to promote and foster the adoption of solar-based power supply systems. This construct was assessed by eleven items (GI1 to GI11) drawn from Cesta and Decker [15], DeLaquil [56] Adurodija [9] and Muntasser [13]. Respondents were asked to rate the importance of the role of government in fostering the commercialization of solar PV systems on a seven point Likert type scale from 1 = Not Important to 7 = Very Important as the anchor points [15]. The eleven variables measuring government initiatives are:

- GI1: Creating awareness by providing helpful information [9, 15].
- GI2: Disseminating relevant information [9, 15].
- GI3: Promoting use of solar systems [15].

- GI4: Publishing results of comparative analysis of solar systems with conventional systems [15].
- GI5: Providing tax incentives for users [15, 56].
- GI6: Providing tax incentives for producers [15, 56].
- GI7: Providing subsidies for installing PV systems [15].
- GI8: Providing concessional financing for installing PVs [9, 15].
- GI9: Establishing performance standards for PVs [9, 15].
- GI10: Establishing independent testing centers for PVs [15].
- GI11: Removing subsidies to fossil fuels such as diesel [56, 57].

## Results

Results as shown by the mean values in Fig.1 indicate that respondents considered ten of the eleven items as very important and one item as important. There was no great deal of variation in the mean values of these ten items as can be seen from Fig.1.

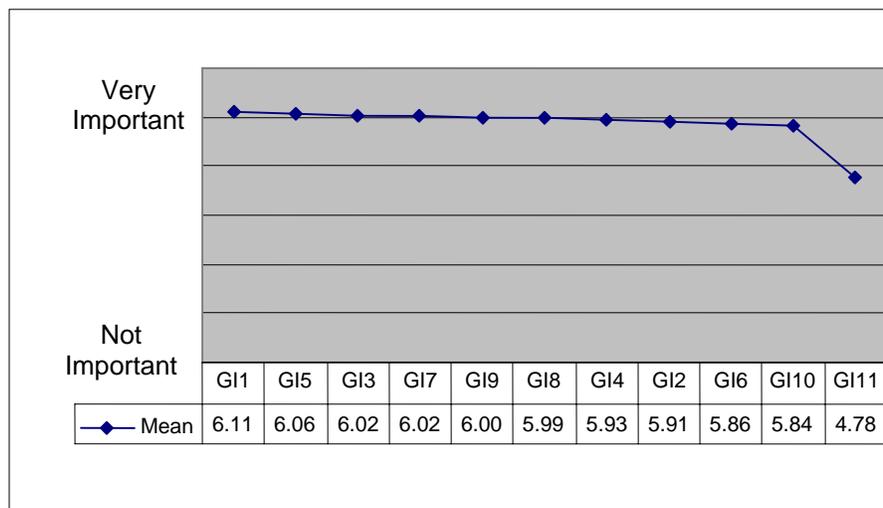


FIG 1: GOVERNMENT INITIATIVES

Creating awareness by providing helpful information had the highest mean rating (GI1:  $\bar{x} = 6.11$ ) followed by: Providing tax incentives for users (GI5:  $\bar{x} = 6.06$ ); Promoting the use of solar systems (GI3:  $\bar{x} = 6.02$ ); Providing subsidies for installing PV systems (GI7:  $\bar{x} = 6.02$ ); Establishing performance standards for PVs (GI9:  $\bar{x} = 6.00$ ); Providing concessional financing for installing PVs (GI8:  $\bar{x} = 5.99$ ); Publishing results of comparative analysis of solar systems with conventional systems (GI4:  $\bar{x} = 5.93$ ); Disseminating relevant information (GI2:  $\bar{x} = 5.91$ ); Providing tax incentives for producers (GI6:  $\bar{x} = 5.86$ ) and Establishing independent testing centres for PVs (GI10:  $\bar{x} = 5.84$ ). The eleventh item which is removing subsidies to fossil fuels such as diesel had the lowest mean (GI11:  $\bar{x} = 4.78$ ). These findings are also highlighted in the analysis of frequencies of responses shown in Table 1.

TABLE 1: GOVERNMENT INITIATIVES – FREQUENCIES AND PERCENTAGES (N = 205)

	Not Important		Very Important	
	N*	%**	N*	%**
Creating awareness by providing helpful information (GI1);	6	2.9	177	86.3
Providing tax incentives for users (GI5)	8	3.9	173	84.4
Promoting use of solar systems (GI3)	2	1.0	177	86.3
Providing subsidies for installing PV systems (GI7)	7	3.4	170	82.9
Establishing performance standards for PVs (GI9)	6	2.9	171	83.4
Providing concessional financing for installing PVs (GI8)	6	2.9	170	82.9
Publishing results of comparative analysis of solar systems with conventional systems (GI4)	3	1.5	170	82.9
Disseminating relevant information (GI2)	6	2.9	172	83.9
Providing tax incentives for producers (GI6)	11	5.4	162	79.0
Establishing independent testing centres for PVs (GI10)	8	3.9	166	81.0
Removing subsidies to fossil fuels such as diesel (GI11)	37	18	113	55.1

\*Number (N) of responses \*\*Percentage of responses

Nearly 80 % or more of the respondents indicated that the government has a very important role to play in fostering the commercialization of PV systems. There is a very strong emphasis on the important role of the government in this regard. 86.3% specified that ‘promoting the use of solar systems’ (GI3) and ‘creating awareness by providing helpful information’ (GI1) are important; 84.4% revealed that ‘providing tax incentives for users’ (GI5) is important; 83.9% indicated that ‘disseminating relevant information’ (GI2) is important, 83.4% stated that ‘establishing performance standards for PVs’ (GI9) is important; 82.9% revealed that ‘publishing the results of comparative analysis of solar systems with conventional systems (GI4)’, providing subsidies for installing PV systems (GI7), and ‘providing concessional financing for installing PVs’ (GI8) are important; 81% indicated that ‘establishing independent testing centres for PVs’ (GI10) is important; 79% have specified that ‘providing tax incentives for producers’ (GI6) is important; and lastly, 55.1% indicated that ‘removing subsidies to fossil fuels such as diesel’ (GI11) is important.

In this frequency analysis, those who circled a 1, 2 or 3 as their response were grouped together to denote ‘Not Important’, which is the lower end of the scale. Those who circled a 5, 6 or a 7 were grouped together to denote ‘Very Important’, the higher end of the scale. In a seven point scale, 4 represents a neutral response and therefore those who had indicated 4 as their response to a particular statement were not included in the frequency analysis. Hence the percentages shown in the Table 1 do not add to 100 percent.

## Implications

An overwhelming majority of the respondents have emphasised that the initiatives taken by the government were very important in fostering the commercialisation of PV systems. These relate to creating awareness by providing helpful information ( $\bar{x} = 6.14$ ); disseminating relevant information ( $\bar{x} = 5.91$ ); promoting the use of solar systems ( $\bar{x} = 6.02$ ); providing tax incentives for producers ( $\bar{x} = 5.86$ ); providing concessional financing for installing PVs ( $\bar{x} = 5.99$ ); and establishing independent testing centres for PVs ( $\bar{x} = 5.84$ ).

As potential users of PV systems, respondents noted that it was important for the government to provide tax incentives for users ( $\bar{x} = 6.06$ ) and provide subsidies for installing PV systems ( $\bar{x} = 6.02$ ) as these measures directly benefit the users. They also pointed out that the government must take appropriate steps to establish

performance standards for PVs ( $\bar{x} = 6.00$ ); publish results of comparative analysis of solar systems with conventional systems ( $\bar{x} = 5.93$ ) and remove subsidies to fossil fuels such as diesel ( $\bar{x} = 4.78$ ).

Empirical results show that in order to foster the commercialisation of PV systems, the government must do all that it can to create awareness of PV systems by stepping up its promotional effort and providing helpful information. Appropriate policy measures must be put in place to provide the needed incentives, subsidies and concessional financing. The government should take the leadership role in establishing performance standards for PV systems, setting up independent testing centres for PV systems and in publishing the results of comparative analyses of solar systems with conventional systems

## **Conclusion**

The development of the renewable energy industry in India is still in its early stages. Therefore the government should continue to play a leadership role in regards to policy, legislation, fund mobilisation, institutional support, tariff formulation, pricing of electricity from renewable energy sources, testing and standards, training, information dissemination and education. Nevertheless, greater involvement by the private sector is required, and concentrated effort is required to expand the marketing infrastructure. Private sector participation has to be supported by research and development, demonstration projects and support needed to commercialise new technologies such as provision of financial incentives, subsidies and tax rebates. A variety of financial incentives are required to stimulate a 'market pull' for RETs. The goal is to increase market demand for RETs and accelerate the adoption of technologies such as PV systems. It is expected that all these measures will aid the adoption and diffusion of renewables [26, 58].

In a country like India where chronic power shortages are rampant there is a strong market potential for PV systems. Power from PV systems offers effective and viable solutions to bridge the energy gap. Creation of an effective institutional framework involves close co-operation between policy makers, government agencies such as MNES and IREDA, manufacturers, dealers, vendors, providers of after-sales service and financial intermediaries. India is endowed with plenty of sunshine and there is urgent need to hasten the adoption of environmentally friendly technologies such as PV systems. This can be accomplished by providing appropriate financial incentives, subsidies, strengthening of the supporting infrastructure to ensure reliability, quality and efficiency. Further it is necessary to provide the required regulatory, legislative and policy support for the rapid diffusion of PV systems.

The contribution of the study emerges from the integration of literature in the areas of renewable energy technologies and the diffusion of photovoltaic technology in developing countries. The significance of this research is that it provides empirical evidence to enhance the understanding of the role of government initiatives in fostering the adoption of photovoltaic technology in a developing country, India.

## **References**

Contact the Author for a list of references

# **Mindset Orientations of Senior Indonesian Managers in the Higher Education Sector: An Empirical Pilot Analysis**

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## **Abstract**

The Indonesian higher education sector is experiencing unprecedented institutional reform with assistance from the indigenous government, the Asian Development Bank, the United Nations and Asia-Pacific countries in recent times. The forces of globalization are impacting on Indonesian universities, polytechnics and higher education institutions to remodel their strategies, change their governance systems and revamp their academic programs to successfully compete in the competitive global environment. The paper develops a model of the globalization of higher education sector in Indonesia to test the linkages between the organizational level paradigms of entrepreneurial orientation and technology intensity and the micro level skills, competencies and mindset orientations of senior Indonesian executives. Analysis of data from 28 senior rectors and managers offer support to the linkages postulated in the model.

## **Introduction: Globalization and the Higher Education Sector in Indonesia**

With a population of over 220million, Indonesia is the fourth largest country in terms of population after China, India and USA. In spite of more than 7 percent annual growth for a decade up to 1997, the Asian Financial Crisis had crippled the economy in a major way. The International Monetary Fund had provided rescued packages to the tune of 50 billion USD and in response; the country had agreed to initiate a comprehensive reform agenda including education. In recent years, the Asian Development Bank and the World Bank had been focusing on reforms in the higher education sector as a means of generating an economic renewal.

Higher education sector in every country was built around the societal culture, tradition and economic development. Global imperatives have initiated a dramatic shift in the role of higher education in Indonesia. Quality, access and equity, autonomy, accountability and other related issues have suddenly become major challenges through which national well-being and competitiveness can be ensured.

The major stakeholder of higher education in Indonesia, namely, government, is no longer able to maintain its traditional budgetary and leadership role. Other stakeholders like industry, multi-lateral agencies, international collaborators etc. are also becoming dominant forces in institutional leadership and management. This calls for the weaving of a new mindset for leaders in this sector. The global requirement of university leaders to devote their vision and energy in areas beyond their core functions of creating, disseminating and applying knowledge cannot be responded only by culture development – it needs a radical shift in the ‘global mindset orientation’ of the leaders. This is the only guarantee to overcome the danger of a society in becoming a mere centre of specialized global function or a vehicle of prosperity for others. A broader global thinking can envision a higher educational environment where a society can empower individuals to be creative, self-sufficient and contributing to a societal progress.

## **Purpose of the Paper**

As the higher education sector in Indonesia adopts an ambitious goal of overcoming a locally focused regime in response to the needs of economic and social reform, the global mindset orientation of the leaders of the sector becomes an indicative measure of the robustness of this venture. The purpose of this paper is to assess the global mindset orientation of higher education leaders in terms of their culture, structure, strategy, positioning and international links. The aim is to ascertain the ambition, purpose and vision through an empirical investigation of a

select sample of leaders across the nation may provide a broad frame for other researchers, educators and policy makers.

## The Logic of Globalization

Globalization has become one of the most widely debated and controversial topic today. Societies, organizations and individuals are undergoing unprecedented upheavals as global linkages in economic interdependence are responded to, differently, at different levels. The macro-level converging forces of economic globalization translate onto the meso and micro level frames which makes it important to understand the symbiotic relationship of the macro-meso-micro interaction. This macro-meso-micro interaction is of foremost importance in the education industry (Chatterjee, 2004; Bray and Thomas, 1998). With the opening up of the economy, Indonesian higher education sector is striving towards achieving a competitive advantage through quality improvement and academic development measures (Suhendro, 1996). The Asian Development Bank (ADB) is working closely with the Indonesian higher education institutes and providing impetus in terms of funding, research and development, academic development initiatives and policy and governance structures (Neave and Van Vaught 1994; World Bank 2004). The Rectors (equivalent to University Presidents or Vice-Chancellor status) of higher education institutes in Indonesia have the onus on them to revamp the environment in which they operate and convert the local initiatives of various universities, institutes and polytechnics into global linkages through global initiatives. This provides a rationale for a deeper level understanding of the societal, psychological, cultural, economic and individual level parameters shaping the mindsets of senior higher education executives in Indonesia (Begley and Boyd, 2003; Gupta and Govindarajan 2002; Jeanett 2000; Beechler, Taylor, Boyacigiller, and Levy, 1999; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992; Bartlett and Ghoshal, 1989).

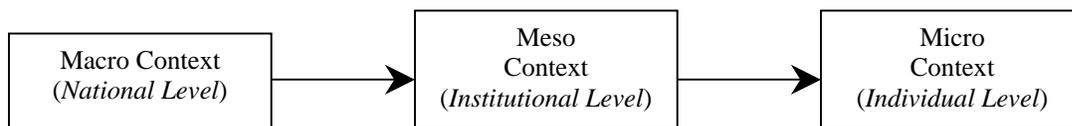


FIG. 1: CONTEXT DRIVEN LOGIC OF GLOBALIZATION

Source: Ananthram and Chatterjee, 2004

### Macro Level Pressures of Globalization

Fig. 1 highlights the context driven logic of globalization. At the macro level, the Indonesian national government is seriously considering strategic reform in terms of embracing the benefits of internationalization of the higher education sector. Government policies are increasingly moving away from 'introvert' policies and are allowing foreign investment in the indigenous economy (Isaak 2005). Apart from *government* being one of the driving forces towards globalization at the macro level in general, industrial organization theory has identified three other forces impacting global orientation: Market, Cost and Competition (Yip, Johansson & Roos 1997; Yip 1989). Drawing on seminal work by above researchers, the paper proposes to define the macro level forces impacting globalization of the higher education sector in Indonesia and test their significance:

- *Market forces* enable the extension of the Indonesian higher education sector's market-scope beyond national boundaries. They are indicated by new customers from global markets, use of global channels and adoption of techniques and processes from global sources.
- *Cost forces* enable the extension of the Indonesian higher education sector's operation-scope beyond national boundaries. They are indicated by global economies of scale, favorable logistics, differences in country costs (including exchange rates), and outsourcing.

- *Government forces* enable the extension of the Indonesian higher education sector's legal and regulatory-scope beyond national boundaries. They are indicated by tariff and non-tariff barriers and regulations encouraging an economic climate that fosters global linkages.
- *Competition forces* enable the extension of the Indonesian higher education sector's competitive-scope beyond national boundaries by creating well-established benchmarks. They are indicated by the matching of structures, processes, systems and strategies employed by competitors.

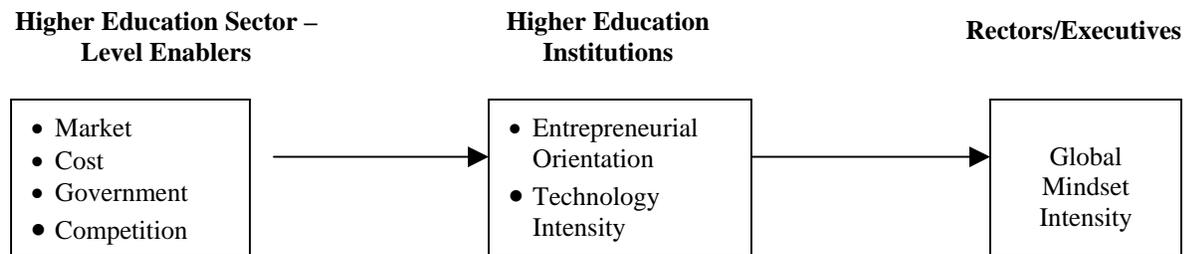


FIG. 2: INTERNATIONALIZATION OF HIGHER EDUCATION MODEL  
Source: Adapted from Ananthram and Chatterjee, 2004

Fig. 2 highlights the symbiotic macro-meso-micro level relationship of the Indonesian higher education sector. The model has been adapted from Ananthram and Chatterjee (2004) which provides a generic conceptual framework of the context of global mindset development underpinned by the theory of the logic of globalization. The macro-level enablers are represented by the four factors outlined earlier (market, cost, government, competition). The macro-level forces impinge on the higher education institutions to rethink their strategies and processes and focus on converting their local presence into a global advantage which in turn puts the onus on senior higher education executives to cultivate a global mindset by developing values, skills, competencies and a culture favorable to compete in the global environment. A detailed explanation of the theoretical underpinning of the meso and micro level frames of the model in Fig. 2 is presented next.

**Institutional Paradigms (Meso Level Pressures): Building Institutional Support for Global Reach**

The industry (macro level) forces of market, cost, government and competition now put pressure on higher education institutes, i.e., at the meso level to be able to take advantage of the favorable macro environment and shape their structure, processes and strategies to give them a competitive advantage. Institutional paradigms shape the way they relate to the environment in which they operate. Decisions made by institutions on the possibility of moving into overseas economies are strongly influenced by their institutional paradigms (Burpitt and Rondinelli, 1998). Dutton (1993) has defined an institutional paradigm as a “theory of action” whereby institutions with a commitment to entrepreneurship perceive external possibilities (supplemented by the macro level forces enabling globalization) as opportunities. He further highlights the importance of contextual conditions, institutional conditions and overall competitive orientation at the meso level as the important support builders for institutions to attain global reach. Two of the key institutional factors identified in the international management literature, which have enabled global linkages at the meso level include *technology intensity* (Cavusgil and Knight, 1997; Kohn, 1988) and *entrepreneurial orientation* (Burpitt and Rondinelli, 1998; Covin and Slevin, 1989). A detailed explanation of these two organization paradigms follows.

*Entrepreneurial Orientation*

Entrepreneurial orientation has been the subject of much attention amongst researchers (Covin & Slevin, 1989, 1988; Miller and Friesen, 1983) and has been linked to institutional growth (Covin & Slevin, 1991). Numerous studies offer different definitions of the term entrepreneurial orientation, however, in summary, they contend that entrepreneurial orientation is defined as an economically oriented mono-dimensional paradigm, encompassing the extent to which institutions engage in risk-taking, innovation and proactiveness in international expansion (Harveston, 2000). However, the paper contends that entrepreneurial orientation has another dimension that of learning, especially with the growing importance of managing knowledge in a knowledge oriented economy in

Indonesia (Hampden-Turner and Tan 2002). Knowledge as an asset and knowledge management as a process has been of utmost importance to organizations across the world. “The process of knowledge integration is being increasingly considered a phenomenon bounded by the cross-verging demands of global and local parameters” (Chatterjee, 2003: 44). A similar view was shared by Dutton (1993) and later by Burpitt and Rondinelli (2001) who examined the organizational paradigm of a two-dimensional entrepreneurial orientation (*economic* and *learning*) influenced organizational decision-making and ultimately, the overall competitive orientation of the firm. A recent study on work goals of managers across eight divergent Asian contexts revealed the importance managers and organizations are placing on the importance of learning (Chatterjee and Pearson, 2002). This competitive or entrepreneurial orientation is seen by management as one of the driving forces towards successful global expansion and management across multinational organizations and institutions are moving towards a shared-emphasis of economic as well as learning goals.

Entrepreneurial orientation at the meso or organizational level is related to micro level managerial orientation, in terms of mindset intensity of managers (Burpitt & Rondinelli, 2001). Senior level management (Rectors and senior executives) with high global mindset intensity would be instrumental in shaping the overall entrepreneurial orientation of the higher education institutions. Building on the discussion within the context of the macro-meso-micro logic of globalization, the paper postulates the following two hypotheses:

*H1: Entrepreneurial orientation will be related to the macro level globalization pressures of market, cost, government and competition.*

*H2: Entrepreneurial orientation will be related to the micro level managerial mindset intensity.*

#### *Technology Intensity*

Another source of organization specific advantage identified in international management literature arises from the appropriate use of technology (Hymer, 1976). Consistent with the work of Palvia (1997) and Harveston (2000), technology intensity is defined as the extent to which organizations and institutions utilize their core technology to gain maximum competitive advantage. The more technology intense an organization or institution is, the more likely it is to leverage its core technology to gain some form of competitive advantage. However, core technology differs from organization to organization and industry to industry. Higher education institutions with a global brand name like Ivy League universities – Harvard and the University of California at Berkley in America, Oxford and Cambridge in Europe, National University of Singapore and the Indian Institute of Technology in Asia and the University of Melbourne in Australia are constantly updating and upgrading their core technologies to enter new markets (Times Higher Education Supplement, 2004). Cavusgil and Knight (1997), and Oviatt and McDougall (1995) found that even small organizations can overcome the disadvantage of their small size through their unique product or the distinctive use of a unique, core technology to produce that product. They contend that in order for an organization or institution to gain sustained competitive advantage in global markets from its technological advantage, its core technology should be difficult to imitate. Tacit know-how, unique manufacturing process or service delivery process provides organizations with the strategic competitive advantage. Several studies have evaluated the relationship between technology intensity and globalization (Eriksson, Johanson, Majkard & Sharma, 1997; Almeida & Bloodgood, 1996; Grant, 1996; Walters & Samiee, 1990; Johnston and Czinkota, 1982; Kothari, 1978; Tesar, 1977) and have reported significant positive relationships.

Managers in today’s competitive world operating in a complex global marketplace need to constantly rethink their strategies, including the appropriate use of their core technologies. Technological isolation can lead to organizations losing out to competing organizations, which are constantly on the lookout for making the first pre-emptive strike by taking advantage of their core technological advantage. Managers need to think, act and transcend beyond national boundaries using technology as one of their core organization paradigms, which further reinforces the importance of the possession of a global mindset, which allows managers to think and act globally. Consistent with the macro-meso-micro contextual model of the logic of globalization, two hypotheses are generated:

*H3: Technology intensity will be related to the macro level pressures of market, cost, government and competition.*

*H4: Technology intensity will be related to the micro-level paradigms of managerial mindset.*

#### **Micro Level Pressures – Managerial Enablers**

The meso level contextual pressures of *entrepreneurial orientation* and *technology intensity* operate together, now putting the onus onto managers to develop values, skills, competencies and a culture favorable to compete in the

global environment. Many recent studies have emphasized on micro-level global reform and the cultivation of a global mindset to create an intelligent global institution (Gupta and Govindarajan, 2002; Jeanett, 2000; Rhinesmith, 1995). A critical success factor for any institution is the level of global mindset orientation amongst its managers (Harveston, 2001; Murtha, Lenway and Bagozzi, 1998). This provides a rationale for a deeper level understanding of the societal, psychological, cultural, economic and individual level parameters shaping the mindsets of senior managers in the Indonesian higher education sector (Begley and Boyd, 2003; Gupta and Govindarajan 2002; Jeanett, 2000; Beechler, Taylor, Boyacigiller, and Levy, 1999; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992; Bartlett and Ghoshal, 1989).

The concept of global mindset has received a growing interest amongst researchers over the past decade. Global mindset has been conceptualized in the international management literature as cognitive structure, a set of observable behaviors, individual competencies, leadership traits and strategic maturity (Gupta and Govindarajan, 2002; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992). The concept assumes that human beings and organizations are limited in their ability to absorb and process information. The constant challenge of complexity, ambiguity and dynamism of this information environment is responded by individuals through a process of cognitive filtration, which involves the selection of what they absorb and the unique way in how they interpret the information (Gupta and Govindarajan, 2002). An integrated view of the concept can be summarized as *'the ability and willingness of managers to think, act and transcend boundaries of goals, values and competencies on a global scale'* (Ananthram and Chatterjee, 2004)

## Methods

### Sample and Site

The study respondents were 29 executives and senior managers of Indonesian higher education institutions. Specifically, 69 percent of the respondents were Rectors (equivalent to university Presidents or Vice Chancellors), while the remainder were from senior managerial positions. Few of these respondents were female. Other respondent attributes are reflected by the high levels of formal education and the wide range of higher education institutions in which they held office. For instance, organizational size (small private polytechnics to large universities), structural configuration (public and private entities), and ownership (within government and local government sectors) provided a wide base from which data were collected. A profile of the study participants is presented as Table 1.

TABLE 1: DEMOGRAPHICS % (N = 29)

Managerial Level	Percent	Educational Background	Percent
Executive	69.0	University Degree	100
Supervisory	24.1	Professional Degree	55.2
Other	6.9		
<b>Age (Years)</b>		<b>Experience in Education Industry (Years)</b>	
Less than 30	3.4	Less than 10	6.9
30 – 39	10.3	10 – 19	34.5
40 – 49	31.0	20 and above	58.6
50 and above	55.2		
<b>Gender</b>			
Male	96.6		
Female	3.4		

## **Procedure**

Data were obtained with the support of the convenors of a Higher Education conference that was held in Bali during April 2004. The conference, which had a theme of Higher Education Governance, was sponsored by the Asian Development Bank (ADB) and the Directorate of Higher Education, Indonesia. Understandably, almost every Indonesian higher education institution was represented, often by their Chief Executive Officer (CEO). These executive and senior managers were invited, through the conference convenors, to complete a questionnaire. Subsequently, the data were examined by appropriate statistical procedures. In this study is presented some of the results of the assessments of some of the variables that were measured by the questionnaire.

## **Measures**

Four measures were employed in this study.

### *Macro – level Enablers of Globalization*

The study adopted a measure developed by Yip (1989) and has adapted the definition of the four macro – level enablers of globalization to suit the higher education context. Participants were asked to rank the four macro – level enablers, (i.e. market, cost, government and competition) according to the order of importance of the level of impact of globalization each force has in the education industry. Number 1 signified the highest impact; number 2 the second highest impact; number 3 the third highest impact; and number 4 the least impact. It was made clear to the participants that each digit could be used only once in order to avoid overlapping. The mean scores of the ranks and their inter-correlations are represented in Table 2 in the Results section.

### *Meso – level Enablers of Globalization*

#### Entrepreneurial Orientation

This construct is defined as the extent to which organizations engage in risk taking, innovation and proactiveness in global expansion, which shapes its overall competitive orientation. Two dimensions of this organizational paradigm have been identified from Burpitt and Rondinelli's (1998) adaptation of Dutton's (1993) entrepreneurial orientation definition: (1) Economic Orientation and (2) Learning Orientation. Both dimensions specifically focus on managerial perceptions of organizational level activities regarding global entrepreneurial orientation. Though the literature linking entrepreneurial orientation to global activities is scarce (Barringer, Macy & Wortman, 1996; Burpitt & Rondinelli, 1998; Caruna, Morris & Vella, 1998), strong linkage between entrepreneurial orientation and firm growth have been well established in the literature (Covin & Slevin, 1991; Miller & Friesen, 1983). This study adapted a scale originally developed by Burpitt and Rondinelli (1998). Respondents were asked to answer eight questions from their organizations point of view, four of which measured the degree of economic orientation and four measured the degree of learning orientation. Responses were coded on a seven-point Likert scale where "1" = Strongly Disagree and "7" = Strongly Agree. The statements loaded onto two factors giving a reliability alpha of 0.61 for economic orientation (one item was deleted to increase the external validity) and 0.87 for learning orientation.

#### Technology Intensity

This construct is defined as the extent to which organizations utilize their core technology to gain competitive advantage. Several studies have found a relationship between the type of technology employed or the use of technology and globalization (Almeida & Bloodgood, 1996; Johnston & Czinkota, 1982; Kriplani & MacIntosh, 1980; Tesar, 1977). The measure employed in this study was adapted from Harveston (2000) which was adapted from Palvia (1997). Responses were coded on a seven-point Likert scale where "1" = Strongly Disagree and "7" = Strongly Agree. The original measure reported employed four questions. In the current study, however, an original item was added and respondents were asked to answer five questions regarding their primary product or service technology. The responses were subjected to principal component factor analysis using varimax rotation in order to reduce the number of variables. One factor emerged with an Eigenvalue of 2.84 a reliability alpha of 0.81

### *Micro – level Enablers*

#### Global Mindset

This construct is defined as the ability and willingness of managers to think, act and transcend boundaries of goals, values and competencies on a global scale. Global Mindset has been conceptualized in international management literature as cognitive structure, a set of observable behaviors, individual competencies, leadership traits and strategic maturity (Gupta and Govindarajan, 2002; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993,

1992). Following the work of Burpitt and Rondinelli (1998), global mindset was assessed by asking managers a series of questions about their attitude towards globalization. The questions were adapted to suit the context. Responses were coded on a seven-point Likert scale where “1” = Strongly Disagree and “7” = Strongly Agree. The responses were subjected to principal component factor analysis using varimax rotation in order to reduce the number of variables. One factors emerged with an Eigenvalue of 2.67 and a reliability alpha of 0.83.

### Results

Table 2 presents the mean scores, ranks and correlations of the four macro – level enablers of globalization. The four items are very independent, further reinforcing their distinctiveness and unique importance. The mean score ranks the four macro – level enablers in order of importance. Indonesian higher education institutions are undergoing unprecedented reform facing pressures of competition at the national and international level, consistent with the findings (Yip 2000; World Bank 1996). This renewed competition has compelled the Ministry of Higher Education and Directorate of Higher Education in Indonesia to provide assistance to the higher education institutes in terms of resources for infrastructure, research and development and more recently governance structures (Kotler and Kartajaya 2002; Prahalad 2005; Singleton 2002). The inverse relationship between competition and cost is logical given the renewed competition pushing costs down. The Asian Development Bank has been working closely with the Ministry and the Directorate General of Higher Education in Indonesia and more recently the Australian Government has expressed an interest in the reform of the higher education sector in Indonesia (Chatterjee 2004).

TABLE 2: MEANS AND CORRELATIONS OF MACRO-LEVEL ENABLERS OF INTERNATIONALIZATION

	<i>Mean Scores</i>	<b>Competition</b>	<b>Government</b>	<b>Cost</b>	<b>Market</b>
<b>Competition</b>	1.83 <sup>1</sup>	1	-0.153 (.427)	-0.588* (.001)	-.136 (.482)
<b>Government</b>	2.17 <sup>2</sup>		1	-.166 (.391)	-.760** (.000)
<b>Cost</b>	2.93 <sup>3</sup>			1	-.174 (.368)
<b>Market</b>	3.07 <sup>4</sup>				1

Note: 1. Superscripts on mean scores are their rankings in order of importance from 1 to 4.

2. Values in parentheses are the significance levels of the correlations

3. \* p < 0.01, \*\* p < 0.001 (two-tailed)

Table 3 provides the multiple regression analysis results for the meso (entrepreneurial orientation and technology intensity) and micro level (global mindset intensity) frames. The table provides the overall regression result when the three meso level variables are entered into the regression analysis together, with the micro level variable being the dependent variable. The analysis indicates a significant relationship between the meso level factors as a whole and the micro level mindset variable. However, owing to the higher degree of multi-collinearity between the meso level factors, none of the meso level variables was shown as significantly related to the mindset variable individually. Hence, each of meso level variables were independently regressed onto the micro level mindset variable. Table 4 further strengthens the support for H2 and H4 as the meso level variables are independently regressed onto the micro level mindset variable. Though all the three meso level variables have significant relationships with the micro level global mindset intensity, the findings suggest that economic orientation has the maximum impact in shaping the global mindset intensity of managers. Indonesian higher education institutes have only recently begun expanding their services beyond national boundaries and the macro level forces of competition are driving them to attain a comparative advantage through low cost means, consistent with the findings of this paper.

TABLE 3: MULTIPLE REGRESSION ANALYSIS FOR ENTREPRENEURIAL ORIENTATION, TECHNOLOGY INTENSITY AND GLOBAL MINDSET INTENSITY

Multiple R	0.529
R Square	0.280
Adjusted R Square	0.253
Standard Error	0.7235

ANALYSIS OF VARIANCE

	Df	Sum of Squares	Mean Square
Regression	1	5.492	5.492
Residual	14.133	27	0.523
<b>F = 10.492</b>			
<b>Signif F = 0.003*</b>			

- Note: 1. Predictors: (Constant), Economic Orientation, Learning Orientation, Technology Intensity  
 2. Dependent Variable: Global Mindset Intensity  
 3. \* p < 0.01

TABLE 4: COEFFICIENTS OF INDEPENDENT REGRESSION ANALYSIS

Variable	B	Std Error	Beta	t	Sig t
Economic Orientation	.661	.204	.529	3.239	.003**
(Constant)	1.742	1.091		1.596	.12
Learning Orientation	.371	.176	.377	2.113	.044*
(Constant)	3.001	1.075		2.792	.010
Technology Intensity	.409	.160	.441	2.556	.017*
(Constant)	3.030	.880		3.443	.002

- Note: 1. Dependent Variable: Global Mindset Intensity  
 2. \* p < 0.05, \*\* p < 0.01

## Discussion and Conclusion

The 1997 Asian Financial Crisis and the recent democratic reform movement had created a new environment in Indonesia where higher education sector has become a critical force for change. In order to energize this large economy and gain a competitive momentum, meaningful global depth is desperately needed for its higher education sector. This limited study of perceptions of senior leaders indicates that the global forces are emerging as a very important trigger in spite of the general culture of bureaucracy in the higher education sector. The forces of market have impacted on the technology intensity and entrepreneurial orientations shaping the competency base of this diverse nation. In spite of the cultural biases in completing the questionnaire based surveys, the pattern of responses do substantially point to a clear emphasis of global mindset.

The brave new world of global higher education system inevitably will make Indonesian universities pay more attention to corporate values of entrepreneurialism, competency and partnership development. Building global and regional capacity in this area becomes inescapable realities for future managers in this sector.

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# Privatization Process in Mexico: Prospects and Effects in Economic Development

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## Abstract

This paper is aimed to analyze historical development and background of privatization in Mexico, prospects of the privatization program in Mexico and effects of the Mexican privatization program. It is safe to conclude that changes of ownership through the privatisation process in Mexico has led to the foreign investors to own the most profitable former state owned enterprises which under the spirit of globalisation of business has terminated any sentiment of national capitalism. Also, it is concluded that the policy of privatization in Mexico has not achieved the aims related to increase economic growth and development, but has contributed significantly to become a subsidiary economy owned and managed by transnational and multinational corporations. However, this aim is politically neither desirable nor feasible for the economic development of Mexico. If good performance of privatisation is required, actually it is successful only if state-owned companies are so well managed that there is no need to privatise.

## The Political Economy of Privatization and Regulation

The international wave of privatizations in the last twenty two has been reflected in the Mexican economy. In the broadest sense, privatisation refers to the introduction of market oriented institutional reforms, which includes the sale of publicly owned assets as well as the deregulation of product markets. Privatization is when the ownership of production units changes from public to private. The question to any privatisation is how it affects competition as the key to efficiency.

Therefore, ownership matters for efficiency. The argument that literature favours private ownership over public ownership (Megginson and Netter, 2001) is not consistent. Willner (2001, 2003a) finds not difference and concludes that public ownership may even be superior in water, electricity and insurances, whereas some labour intensive industries such as refuse collection and bus transport tend to be cheaper under private ownership.

Economic theory sustains that changes in ownership lead to performance improvements where there are appropriate changes in the competitive or regulatory environments (Parker, 2004). A state owned company that have good financial performance become more likely to be privatised. An economic appraisal of privatisation demonstrates that the roles of competition and regulation may be crucial if ownership change is to have reliable efficiency results (Kay and Thompson, 1986; Vickers and Yarrow, 1988; Martin and Parker, 1997)

State enterprises ownership is associated with cross-subsidies and 'no undue discrimination' clauses that lead to uniform pricing (Parker, 2004). Where markets become more competitive after privatisation, it might be expected that prices would move closer to marginal costs, implying higher allocative efficiency. Privatization, when coupled with competition, is expected to lead to prices more closely related to the marginal costs of supplying different user groups. However, this depends upon the pricing strategy followed under state ownership (Parker, 2004:10).

Principal-agent theory and public choice theory provide a powerful theoretical rationale for privatisation (Boycko, Shleifer and Vishny, 1996). Privatisation often requires regulation and hence an additional agency problem (Shapiro and Willig, 1990/2000; Laffont and Tirole, 1991). Principal-agent theory suggests that in privately owned enterprises management faces higher incentives to maximize productivity and to drive out waste (De Alessi, 1980; Bös, 1991; Boycko et al., 1996). The theory of incentives critics the state ownership of firms behaving as "a weak and erratic "shareholder", hesitating between the maximization of short-term financial or political benefits and a "laissez-faire" approach supposed to let the state firms develop as they wished, in spite of the bureaucratic control of their activities" (Berne and Pogorel, 2004:4).

Under the principal agent framework in order that investments materialize it is necessary the development of safeguarding institutions and regulatory agencies to prevent the engagement of opportunistic behaviors. Public

choice theory maintains that within government, as elsewhere in the economy, self-interest is the dominant motive, with the result that state ownership is associated with empire building, gold plating of public investments, over-manning and, in general, economic waste (Niskanen, 1971; Tullock, 1976; Mitchell, 1988).

The design of regulation has two choice variables or components for governments undertaking public sector reforms, which are limited by institutional endowments of the Mexican country. Heller and McCubbins (1997) called these two variables as political stability and price risk. Levy and Spiller,(1996) denominated as regulatory governance and regulatory incentives. Political stability is defined as a situation with minimum risk that government would introduce changes to the way it treats investment. Regulatory governance refers to “all the mechanisms that a society uses to restrain government discretionary moves and to solve conflicts between firms and regulators” (Abdala, 1999:3). Price risk is considered in same terms as the structure of regulatory incentives, which “involves the specific norms related to price regime, subsidies, competition policy, barriers of entry, interconnection rules, etc.” (Abdala, 1999:3).

The reform of regulatory governance include the institutionalized framework of regulatory agencies, the delimitation of their independent powers and mechanisms of financial autonomy, arbitration of controversies, access to competition in liberalized markets, etc. As factor closely related to governance culture to explain growth and success of state owned companies, experimental research emphasises fairness, reciprocity and intrinsic motivation in explaining individual behaviour, collective action and cooperation (Fehr and Schmidt, 1999; Fehr and Fishbacher, 2002). Also experimental research emphasizes organizational design supportive of . intrinsic motivation (Fehr and Fishbacher, 2002). Kaufmann et al. (2003) compares observable governance indicators to explain growth, such as accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption, (Jalilian et al., 2003),

Development of safeguarding institutions must accompany the regulatory reform and privatization of utilities because asset's specificity and the nature of tradability of services supplied.

Transaction costs political economy are the result of institutional design and have some applications in privatization processes. Privatization reduces the structure of costs through more flexible mechanisms of labor management, production and distribution. Economies of scale and fixed costs in the production of public services have become a more important factor in the cost function. Privatisation has relatively minors impacts on R&D costs and taxes and deregulation has a major impact on marketing and commercial costs (Berne and Pogorel, 2004).

The welfare benefits of transferring ownership from state owned enterprises to private investors of some utilities that have natural monopoly components, such as telecommunications, may not be large.

## **Historical Development and Background of Privatization in Mexico**

Mexican economic nationalism emerged as a result of promoting public and private Mexican capital to avoid unwelcome foreign investment, mainly by the United States. Nationalisation was ruled out for ideological and practical reasons. State-owned companies in Mexico were offshoots of political nationalism. Nationalised companies were at the core of the Mexican state enterprise model based on economic nationalism. The Mexican State was characterized by an historical distrust of capitalism and a belief in the ability of the government to intervene and regulate economic affairs through its explicit constitutional mandate (Grier and Grier, 2000: p. 245).

Public ownership can be a substitute when capital markets are underdeveloped, or investors too short-termist or risk-averse (Rees, 1984) but public ownership has been criticised for dynamic inefficiency and high costs. In Mexico, public ownership has dominated public utilities sector, infrastructure industries manufacturing and banking as well, although the Mexican state found opportunities of expanding to sectors where public ownership was not the only alternative. Mexican industry became a rent seeking culture protectionist and depending on tariffs, quotas, state purchasing and other forms of state aid. This dependency on the state and on politicians was institutionalised for economic benefits during the thirties.

However, from the 1930s and until the 1970s a model of import substitution industrialization (ISI) favored private Mexican investments and was also believed to benefit the people. Industrialisation process of Mexico was an economic policy to create and protect new born industries of needed goods and services through the promotion of

benefits such as fiscal and tax exemptions, subsidies, providing access to credits and loans with reduced interest rates, etc.

The Mexican state owned enterprises sector was larger because it was established to contribute to the industrialization process due to scarcity of domestic private venture capital and the unwelcome foreign investors always ready to take over the most profitable manufacturing sectors, as it was established the limits in Constitutional provisions. The system of political patronage of appointments to state owned enterprise boards was based more on political loyalty rather than commercial ability, increased the political clientalism and reduced the independence of the state owned commercial enterprises which with politically appointed boards and weak management were heavily unionised by public sector trade unions

State owned enterprises in Mexico became over time identified with dependency culture, subsidy rent seeking, regulatory capture, high costs, producer dominance and indifference to consumers, The Mexican public sector enlarged the number of publicly owned corporations. In 1982 state owned enterprises produced 14 percent of gross national product (GNP), received net transfers and equal subsidies of 12.7 percent of GNP and represented 38 percent of investment in fixed capital. There was no provision to regulate the market of state owned enterprises which were treated as an end in themselves to provide jobs for an increasing work force but facing conflicting roles of owning the company and regulating the market. Higher social benefits, considerations of social welfare and public service rather than private returns on investments and slow enterprise formation despite good profit opportunities might also explain why state-ownership was included among the growth strategies (Miettinen, 2000; Geroski, 1995).

The new market orientation is a response to the increasing economic pressure on the welfare state in late 1970's, The 1980s was also a decade of reassessment in Mexican national economic policies. State spending was not anymore considered as an engine of economic growth but to have a negative impact of competitiveness. Therefore, the Mexican economic model of development changed from the closed economy to an open economy with emphasis on competitiveness in the global economy during the 80s.

The Mexican privatization process began in the wake of the Mexican debt crisis in 1982 as a response to pressures from creditors, but since then, there has not been any specific privatisation program in Mexico, in such a way that each case has been treated according to contingencies..Therefore, after the 1982 crisis, Mexico entered into a painful, distressful, and controversial period of state restructuring when the government signed a Letter of Intent with the International Monetary Fund (IMF), which conditioned IMF lending on privatization and other economic measures of austerity in public spending and market liberalization, aimed to offer better terms for foreign investors and to promote exports. Neoliberal economic reforms, also known as the "Washington consensus", entail public policies that are directed toward tight fiscal discipline, privatization of public sector organizations in order to downsize and achieve balanced budgets, deregulation and lowering of trade barriers...

The most important structural changes experienced by the Mexican State were linked to economic policies congruent with the new global environment. Some of these changes include the restructuring of productive plants, privatization of the *ejido* (communal property), improvement of public finances, modernization of education, privatization of state enterprises, negotiation of external debt, deregulation of the economy, commercial and financial liberalization and greater foreign investment. The changes included: economic reorganization; national market openness; elimination of commercial barriers; elimination of price controls and subsidies; privatization of public enterprises and state property; reduction of social policy expenses; free money exchange, and also wide political reforms and administrative modernization. It abandoned the import substitution model and called economic intervention in the state into question.

Since 1982, nearly 1,000 state-owned enterprises out of around 1, 2000 have been sold off, since. The reasons for the privatisations seem to have been largely fiscal. International Financial Institutions used the leverage of foreign debt to require among other changes in the Mexican economy designed to encourage foreign investment, the privatization of state-owned enterprises which include, airlines, airports, ports, railroads, banks, telephone services, oil and electric industries and so on. The wave of privatization in Mexico implied transfers of property rights, control, profits and liability of state owned enterprises from the state to private share holders. Ownership of state owned companies by taxpayers was a theoretical rather than negotiable property right. The Mexican government has gradually reduced state intervention and its role in the management of the economy over the last 22

years with the shift from a policy of import substitution to the implementation of policies of trade liberalization and export promotion.

Since then, the Mexican government has pursued a policy of privatisation, selling off Telmex, the national telephone company, the banks, steel companies, and numerous other industrial and agricultural enterprises. Mexico also has pursued a policy of deregulation, reducing or eliminating bureaucratic red tape for numerous processes. As Berne and Pogorel (2004) contend, the existence of competition makes public management very complicated.

The Mexican privatization and divestiture process of more than 1,000 state owned enterprises in Mexico started in the wake of the debt crisis in 1982. The implementation of the privatization program was part of the arrangements that the government of Mexico had to obtain loans from both the World Bank (WB) and the International Monetary Fund (IMF) with the specific goal to earn foreign exchange through the promotion of exports and foreign investments. In a sense, no specific privatisation program or plan was settled down rather than a policy evolved in terms of the government's ability to sell off the state owned enterprises.

In 1979, the technocrats in cooperation with Dow Chemical envisioned a North American Energy Project that would connect the electrical grids of Mexico, the US and Canada.

The main thrust of the reforms encouraged in Mexico was the development of a competitive, broad-based export sector of nontraditional goods. Mexico joined the General Agreement on Trade and Tariffs (GATT) in 1986 and became an exporter of manufactured goods. The strategies adopted for the design of the Mexican State, as it was for other states, was reduction of state structures and facilities, privatization of state owned enterprises, and economic deregulation.

The decision to privatize Telmex was made in 1988 presidential campaign, a profitable and wealthy state-owned company. "Telmex was chosen partly for its symbolic importance and partly as a potential source of a sizable amount of revenue. The privatization of Telmex would dramatically serve notice that Mexico was serious about privatization and the development of the private sector." (Tandon, Ch. 16, p. 3).

Vast programs for the privatization of public enterprise in Mexico had been successful, to a certain point, in ameliorating the economic intervention of the State. Mexico ranked second in privatization in Latin America during the decade of the nineties when the government transferred to private corporations assets that amounted to 31,458 million dollars, which represented 20.4 percent of the total sales of state owned enterprises in Latin America. Privatization reached 3,160 million dollars in 1990, increased to 11,289 million in 1991, and totaled 6,924 million dollars in 1992.

Before the privatization of Telmex, the government drastically raised the prices of telephone services to consumers.

According to two annual reports of The World Bank (1989:150, 1990:150) the provision of a US\$ 500 million loan to Mexico was made in 1989 to reduce the "heavy burden Pes (public enterprises) impose on the economy" through their privatization and deregulation program. In 1990 the government eliminated the indirect tax on telephone services and the remained taxes were absorbed into the prices and transferred to the consumers. (Tandon, p. 23-24)

After the Mexican government official announcement to sell 51 percent of voting stock of Telmex, in December 1990 was sold for a total price of US\$ 1.67 billion to the winning bidder Grupo Carso who bought 51 percent of the stock sold. France Telecom purchased 24.5 per cent and Southwestern Bell the remaining 24.5 percent. Additional shares owned by the government were sold in 1991 and 1992. The Mexican government owned 56 percent of total Telmex's stock which was sold on the total amount of US\$ 6.2 billion. The remaining 44 percent was publicly traded. Another loan of US\$ 22 million in technical assistance from the World Bank was provided to the privatization of Telmex according to The World Bank (1989:150, 1990:150).

After privatization of the Mexican state-owned telephone company in 1990, the price of Telmex' stock increased due in part to the increment of consumer prices and to a questionable improved efficiency. A report from The World Bank in 1992 "the privatization of Telmex, along with its attendant price-tax regulatory regime, has the result of 'taxing' consumers -- a rather diffuse, unorganized group --and then distributing the gains among more well-defined groups, [foreign] shareholders, employees and the government." (Tandon, p. 39) The report estimated that the consumers were worse off by 92 US\$ 33 billion, although the analysts of the report predicted that consumers would benefit from reduced prices in the long run, projection that has not been accomplished until today.

Foreign investors captured 90 per cent of the net benefits from privatization and gained 67 trillion pesos while domestic shareholders 43 trillion pesos, employees 23.5 and government gained 16 trillion pesos. A 10-15 per cent dropping in prices in international long distance service mainly due to competition of foreign telephone companies abroad México, Telmex increased the prices of national long distance in the same percentage in 1996. This trend has continued and it is likely to continue. Telmex's monopoly in telephone long distance services ended in January 1997 with the attraction of the interest of USA based telephone companies to form alliances with Mexican investors setting their own prices while entering to the national market. Rural telephone services will continue subsidizing by the government despite the pressure to keep down public expenditures from the international financial institutions.

In 1991 took place the Mexican bank privatization. It has been described as a successful program of privatization because its clear objectives, transparent and credible procedures adopted (Barnes, 1992). However, lack of legal and regulatory framework that shadowed the technical process were, among other, causes of the banking crisis that had to deal the financial system in 1994, and needed to re-privatize at a greater cost to the taxpayers. as Unal and Navarro (1999) contend. In order to increase and broaden the quality of the financial services available to the public, Mexican banks were re-privatised

The privatization model adopted by the Mexican government was to sell the banks one at a time to maximize returns, expecting increasing interests and thus, higher prices. Although the program designed was transparent and effective to privatize the banking system in México, it was not sufficient to ensure a sound and safe financial system. The buyers of the banks and other financial institutions were mainly stock brokerage houses. Privatization and regulation of the Mexican banking system resulted in the creation of financial conglomerates with banking, insurance, leasing, factoring, money exchange, stock brokerage, mutual and pension fund operations. Husted and Serrano contend that the financial and marketing synergies were rather high since the banks acted as holding companies and were a sure source of low-cost capital for the other financial entities.

The newly privatized banking system operated under outdated regulatory system already dysfunctional, as well as the set of supervisory agencies incapable to implement and enforce new regulations and rules. The privatisation of the banking system brought mixed results for the Mexican economy. According to Husted and Serrano (2001) returning private ownership and management to the banking industry was the good news, but unfortunately, very high prices were paid for the banks, which inherited problems from uncollected loans. The already private banks needed significant infusions of financial resources to cope with their problems of bad debt and with the financial crisis of 1994, when the federal government intervened, but without renationalising the banking and financial system.

In reality, the privatization of the banking system into financial groups emerged from the "steam" and complicity among investors and politicians who took advantage of international organizational finances channeled to rescue Mexico from the debt crisis. However, their differences in crisis management took them into highly indebted economies, which had the opportunity of transferring charges to society. Still now a days, taxpayers are supporting the burden of the financial crisis of 1994 caused for the lack of a well designed legal and regulatory framework to be enforced during the privatization process of the banking system..

In 1992 foreign companies were allowed to build and operate energy plants in México so long as they exported the energy produced or sold it to the Federal Electricity Commission. The same year, the Federal Electricity Commission and the Power and Light Company halted new construction of power plants.

In 1992, Labour organizations opposed and delayed the privatisation program for both pensions and health care, but in 1995 were only able to partially stop or delay such reforms.

The government of President Zedillo privatized airports and railways between other important sectors. In 1996, labor unions, new social movements and civil society joined together to protest the privatization of the Mexican state-owned oil company *Petróleos Mexicanos*. Oil and electrical industries were not included in negotiations of NAFTA.

In 1995, it was partially privatised the Mexican public pension system provided by the IMSS for private sector workers, but the actual implementation was delayed. On July 1997 the pension and retirement system in Mexico was privatized and workers were allowed to deposit their pensions along with employer contributions in their own accounts. Privatisation of the public pension system included a shift from a defined benefit to a fully

funded, defined-contribution market-based pillar and based upon privately administered individual accounts. This new system is based on individual sovereignty as a notion opposed to solidarity, notions that get lost in rhetoric and ordinary Mexicans do not understand how this affect their lives. The shift toward privatisation of pensions may also perpetuate stratification if only certain public pension schemes are included in reforms,

The Mexican pension reform has entailed a shift of pension and retirement responsibilities from the state to the market. Under this new system, individuals' private accounts are managed by private pension fund companies know as "afores" which invests the money in capital markets. The privatization of the pension fund system, motivated Mexican financial institutions to develop strategic alliances with their counterparts from all over the world in order to acquire managerial expertise and capital. (Husted and Serrano, 2001).

According to Vásquez, Director of the Project on Global Economic Liberty at the conservative Cato Institute, this privatization "differs from previous Mexican privatizations because, at least in theory, it does not intend to generate revenue for the state. Instead, it seeks a laudable goal, admittedly one that politics already appear to be compromising: turning Mexico into a country of property-owning workers." (Vásquez, 1997). He argues that this is revolutionary concept in Mexico, a concept that again gets lost in rhetoric.

On the other hand, Dion () concluded that the pension reform never addressed the gender impacts and further erodes social citizenship rights, especially those of women. The reform resulted in a net deterioration in the welfare of women in Mexico at retirement and predicted that the reform likely increased the dependence of elderly women upon family networks for their welfare. Since women generally have a disadvantaged position in the labour market in terms of participation and wages, this shift in emphasis to market provision of pensions is unlikely to benefit women.

In the case of the electrical sector, the first time that the privatization scheme not succeeded was when Zedillo proposed in 1999 privatization of electricity, the labor union formed the National Front of Resistance to the Privatization of the Electrical Industry which confronted the neoliberal reforms. The formed movement hosted an international conference and brought delegations, non governmental organizations, union representatives, political parties and academics from other countries, the National Association of democratic Lawyers (ANAD), the Worker's University of Mexico (UOM), the Party of the Democratic Revolution (PDR) a leftwing party, among others. Finally the movement of resistance defeated the privatization scheme of the electrical industry.

The year in which the state recorded most privatization was 1991 with a total of 11,289 million dollars, while in 1998 Mexico the lowest was 999 million dollars. By June of 1992, the Mexican government had privatized 361 out of approximately 1,200 enterprises owned by the state. Privatization during 1993 represented 2,131 million dollars. In 1996 it increased to 1,526 million dollars, in 1997 to 4, 496 million, and in 1998 decreased to 999 million dollars. A report from the World Bank states that between 1990 and 1998 privatization of public enterprises reached a total amount of 154,225 million dollars, an amount only less than the balance of the total external debt of Mexico which in 1998 was of 159,959 million dollars.

Still more, there is a connection between Mexican government's scheme of privatization with Enron. 64 subsidiaries of Enron to operate in the Mexican power market, from which some executives are advisers on energy policy. On April 4, 2002, Enron Energia Industrial de Mexico in partnership with Vidriera Monterrey and Vidriera Guadalajara (two big glassmakers), Grupo IMSA, (a steel and autoparts giant), Industrias Whirlpool and other big Mexican companies received a license from Mexico's Electricity Regulatory Commission to build a plant. InterGen Aztec Energy is a partnership between Bechtel Enterprises and Shell Generating Ltd , built a plant near Mexicali. Sempra Energy Resources is an energy maquiladora that built another power station near Mexicali. Its 600 megawatts will all be sent to the US, and the gas for its boilers will come from the US in a Sempra-built pipeline."These are the same companies that robbed and defrauded people in the US," Bob Filner, San Diego Congressman, told the daily La Jornada being critical of the sempra and InterGen border plants.. "The question, therefore, is why should Mexicans trust them not to do the same here?"

Carl Wood, member of the California Public Utilities Commission also warned of another danger -- that the swings of the market could bring about manipulated shortages and periods of extremely high prices, as they did in California. "Mexican industry might not be able to absorb those price increases, nor raise prices on its own products in the world market," he explained. "Price spikes in electricity might therefore cause industrial activity to stall." He called the US companies behind the proposal "the same old gang of thieves." (Bacon, 2003)

In May 2002, the Mexican Congress has passed a resolution opposing any changes in the Constitution to make privatization possible. One of the principal arguments for the privatization plan is that there is necessary to make amendments to articles 27 and 28 of the Mexican Constitution to legalize foreign investments that already exists in the energy sector, although it is clear that industry of the energy sector can be self-financing if it weren't for the government's policy of disinvestment. An introduction of a bill ban the increasing 10 per cent of current generation done by private companies.

In a comparative perspective of privatization programs advancement between Mena countries and Latino American countries during have been developed by Godstein (2003) where can be inferred several points. First, latin American countries have advanced more in privatization than the five MENA (Mediterranean partners) countries. Second, during the same period of time, among the Latin American countries compared, Argentina and Brazil had advanced faster than México who is lagging behind. Third, the sectors where Mexican program has not privatize are those politically sensitive, such as the case of oil and electricity.

### **Prospects of the Privatization Program in Mexico**

By 2004 there are less than 200 public owned enterprises out of more than 1 200 to privatise, and the model of welfare state in Mexico is under attack by privatisation of public services, mainly public education, public health-care services, public transportation, housing, etc. The new government of Mexico under the Fox administration, plans to privatize the energy sector, oil and electrical industries, water, education, health-care services and the list goes on and on..

In education, there are public and private schools at all levels, including graduate and postgraduate studies. In health care services, also exist public funded and private ownership. Both, public education and public health care, are increasingly underfunded and the fees are raisin every year, to promote consciously the use of private services. This is more relevant in public universities and hospitals managed by the Secretariat of Salubrity and Welfare, but also it includes the health care systems supported by contributions of workers, employers and government, the Mexican Institute of Social Security (Instituto Mexicano del Seguro social, IMSS) and the Institute of Security and Social Services for State Workers (Instituto de Seguridad y Servicios Sociales para los Trabajadores del Estado, ISSSTE).

The World Bank has worked closed with global water corporations to push privatisation of water in México and numerous loans have contained conditions mandating water privatisation and full cost recovery through increasing consumer fees for water. Conditions to meet to be eligible for the loans are such as economically efficient pricing, self-sufficiency of the project through cost recovery, appropriate competition and regulatory framework, and enhancing the participation of the private sector.

Privatization and opening the energy sector to competition, especially the electric and petrochemical industries, won't work according to the same managers. Efforts at privatization of the Mexican petroleum company, Petróleos Mexicanos (Pemex), the World's third largest producer of crude oil and to the Comsión Federal de Electricidad (CFE) have been opposed by labor unions, political parties from the left, new social movements and the civil society.

The privatization program of these two state owned companies has long been a sensitive matter in politics since the nationalization of all oil properties and assets of all foreign oil and gas companies in 1938. School children all over the country contributed pennies to the national fund established to compensate foreign investors. In 1960, the electrical industry was nationalized as well. Nationalization of oil industry and nationalization of electric industry are the symbol of Mexican national sovereignty. Foreign investments and participation in the energy sector were proscribed by the Mexican Constitution that prevented foreign investments in oil and gas industry in exploration, production and refining and only allows Pemex to engage in these operations. Even legislators have rejected the draft of the amendments to the Constitution that will allow to be more attractive the opening of energy sector to foreign investors.

“The country functions well... entrepreneurs don't want to buy Pemex or CFE. As a private sector what we want is to be allowed to compete, to participate in certain areas of production, to make them competitive at the

international level... it is not necessary to put padlocks on foreign investment so that it intrudes in the electricity and hydrocarbon industries. The only rules for national capital and foreigners should be a free market economy, open commercial prices set by international competition” (Becerril, 2000).

However, there have been sold some petrochemical industries and contracted drilling operations to foreign investors, undertaken joint ventures abroad. Foreign companies as Amoco, Chevron, Mobil, Occidental, Royal Dutch/Shell, and Texaco are optimistic in investing in the oil industry sector in México. Shell oil’s Deer Park, Texas has an equity investment in refinery operations that allowed Pemex to replace the domestic shortfall.

The Electric Workers Union (SME) accuses the government to subsidize large users of electrical power instead to benefit the poor and draining resources from the Power and Light Company, the other state owned electrical enterprise by forcing it to buy power from the Federal Electricity Commission (CFE) undermining modernization of equipment. The government scheme of privatization is to provoke bankruptcy of both state-owned electric companies or to be replaced by foreign-owned companies. For the SME the prospects are doomsday according to the bitter experience of privatizations in México: rates will increase for small users, workers will be fired, and so forth.

Cutting social expenditure in education and public health would reduce the weight of bureaucracy gradually by transferring these functions from the State to the private sector. Fox has said that they will reduce the cost of government in the next six years by subjecting it to a rigorous but gradual diet of federal public administration. Changes were needed to eliminate the lock on 51 percent of national investment to give a bigger opening to private and foreign investment and to invigorate the financial system. The neoliberal model not only weakens the political autonomy of the State; it also diminishes the capacity of the state to formulate social policies. The adoption of economic neoliberalism has led to an anti-statist ideology. As such, the state’s structure and functions have been transformed, allowing for greater assumption of responsibility by the private sector.

Until now, the neoliberal state model seemed to be the only course, with privatization, deregulation, tight fiscal discipline and slashing of social benefits and taxes, a formula which promised a dollop of austerity and little else for the time being. Some important economic issues on which the three main parties agree, are the acceptance of North American Free Trade Agreement; defense, support and stimulation of domestic private initiative, and acceptance of foreign investments as a complement of domestic savings. Although PRI and PAN have the same thesis and agree on privatizations, the PRD criticizes it arguing that it has favored a small group of investors.

The National Action Party (PAN) stresses that the reform to the State implies increasing its efficiency and not necessarily downsizing, although traditionally, the State had activated the economy with full charges and burden, now it should be looking for to leave these responsibilities to the private sector. Similarly, the Institutional Revolutionary Party (PRI), according to its economic platform, has stated there is no optimum government size or ratio of spending to GDP and supports existing privatizations. Democratic Revolution Party (PRD) points out the need of public participation in strategic, priority, and/or natural resources areas. It implicitly acknowledges the reduced role of the government and does not propose either nationalizations or the reversal of previous divestitures. It only wants to avoid them in the future and in fact it explains its platform would only marginally increase the GDP participation of public expenditure.

## **Effects of the Mexican Privatization Program**

Any word on the effects and impact of privatisation process in Mexico may be premature, because the turbulent macroeconomic environment since the 80s..The precise economic effects of Mexican state owned companies privatisation remain uncertain and controversial. In terms of its scope, the privatisation process has been dramatic. Undoubtedly, the large number of firms sold off and their size make privatisation a profitable operation for the Mexican government. Thus, the public unprofitable firms forces the Mexican government to make them profitable through different mechanisms such as restructuring, reduction and fresh capital.

Empirical research about the effects of privatisation on the Mexican economic growth and on former Mexican state-owned companies are very limited. Privatization in Mexico has not been the expected economic

miracle needed to increase economic GDP growth and lowering the rate of unemployment, although to a some extent it has contributed to reduce the burden of the state in the economy.

The former state owned companies that have been fairly successful, after privatisation there is not evidence of improved financial performance or cost efficiency despite stronger focus on profits, due to lack of mechanisms of regulation and governance rules and information transparency. However, it is clear that prices of goods and services of these already private companies have increased and overall their privatisation have resulted in concentration of wealth and profound disparities of income distribution.

Under the influence of the PRI, the Mexican State initiated economic modernization and participation in the globalization processes, as a response to the trends of the economic globalization of markets, and the technological revolution that began during the last two decades of the past century. Under the pretext of cleaning up the economy, the Mexican State privatized strategic enterprises of the public sector, most of which were acquired by foreign investors, who had already penetrated all economic sectors.

The program of privatizations in Mexico has been carried out both through strategies of direct sale and public offerings. Privatisation of some owned-state companies were used to give back previously nationalised firms to the private sector, such as the banking and financial institutions. However, the sale of the largest and most profitable state-owned enterprises known as the 'crown jewels', TELMEX AND CFE has been opposed by labor unions, civil society, leftwing political parties and even legislators. The process of decision making about privatisation of public utilities was more centralized in Mexico than in Argentina for example (Abdala, 1999). The high concentration of capital in a few corporations through the privatization process of public enterprises unleashed the phenomena of political privatization.

The benefits of privatization have not yet been evident to the Mexican people even though defenders try to demonstrate the opposite. According to data provided by the former President of Mexico, advocator and implementer of the privatization program, Salinas de Gortari (1988-94), privatization reduced budget expenditures to finance social programs thus preventing a fiscal deficit. It is said that Salinas has also privatized politics in Mexico. However, it might appear to be cynical when we state that the privatisation process has been subject to the electoral agenda and to economic opportunism of decision makers and political actors, acting out of conviction and for personal gains in terms of corruption, more than to achieve social welfare and benefits.

Also, the effects have not been satisfactory over all. An analysis of the welfare gains from privatisation addressing the distribution of them economic net benefits, have been regressive in terms of impact on income and wealth Mexican privatisations may have some improvement effects on productivity but negative and regressive effects on the distribution of income and wealth. Some privatizations programs, after transferring the property of state-owned companies to private companies that get caught by the financial crisis of 1994, reflects the socialization of losses and privatization of profits such as the financial and banking system and not to mention the privatization of motor ways and roads.

The impact of privatization and deregulation on workers has been devastating not confirming the principle of Berne and Pogorel (2004) which states that strong union presence hinders privatisation, as it has not being the case of Mexico.. In 1986, Aeroméxico, one of the two main Mexican airlines was the governments response to a strike while firing more than 12, 000 workers and selling off the company in 1988. On the other hand, during the privatization process of Teléfonos de Mexico, or Telmex, the national telephone company, organized labor had little subsequent opposition and remained quiet after receiving 4.4 percent share of ownership of the company (Tandon, 1992: 6-13) an also because there has been little pressure for job or wage cuts so far.

During the process of privatization of the Port of Veracruz, soldiers had to occupy it and the workforce had to be fired. Similar actions were taken in the privatization of the copper company in the late 1990s, when the miners at Cananea fought against job reductions but firing the workers of the stated owned cooper company was also a response of labor apposition to the privatization process The railroads labor union had wildcat strikes to hit the company services when they were sold to Grupo Mexico and the private owners reduced workers from 90 000 at around 36 000 during the last decade. The labor union of drivers of Ruta-100 in Mexico City fought the sell off of the company although the leaders were imprisoned. These actions are the cause that organized labor have had little subsequent opposition to the privatization process. When the National Autónoma University of México, a public university, had the intention to increase enrolment fees, students did not allowed it having a strike that lasted one

calendar term.. However, some other public universities in the states have been more successful in slowly but steadily increasing the fees every term.

Employment in the Mexican public companies has declined rapidly due to privatisation and employment reductions in the remaining enterprises. Programs of privatization in Mexico have reduced employment by half, while production has increased 54.3 percent with a significant reduction in investment. A study by Galal et al (1992) analyzed the after-privatization performance of twelve companies in different countries, including Mexico, and documented an increase of 26 percent in profits in eleven cases but an increase of benefits to workers in only three of the cases.

Resistance by labor unions, social movements and social society groups to privatization has often been fierce, but most of them have defeated. However, the Mexican government has not achieved the sell off of PEMEX and the CFE. unions and civil-society groups joined together in 1996 to protest the sale of *Petróleos de México*, the state-owned oil company. The political strength to reject the privatization program is bound up with changes in the labor unions movements in Mexico. When collateral petrochemical industry was privatized during the last decade, union membership fell to 7% while PEMEX still hovers at around 70 per cent. In the electrical sector at least, the labor movement began to change with the announcement to put the electrical system up for sale after the election of President Zedillo in 1994.

Although the privatization of the pension system was achieved in 1997, the opposition of state employees labor unions and of the Mexican Institute of Social Security (IMSS) employee union prevented the privatization of both health care provided by the IMSS system and any overhaul of the state employees' social insurance system (ISSSTE). The pension reform erodes social citizenship rights, and in the overall, the pension privatisation will have a negative impact on women's welfare in Mexico (Dion, )

At the Union for Electrical Workers of the Mexican Republic (SUTERM) at the Federal Electricity Commission (CFE), the government seized control of it in such a way that the leader head the *Congreso del Trabajo*, the main government affiliated labor federation. When the Union refused any defense against the privatization of the CFE, the workers that resisted formed a new union federation, the National Union of Workers, and declared open opposition to the sale of the Federal Electricity Commission. On May 22, 1999, 3000 of SUTERM members defied their national leaders and allied themselves with the SME, well respected for its internal democracy and gained legitimacy.

Another demonstration on August 28, the formation of a national coordinating committee and an alliance with national Union of Workers, the leftwing Party of the Democratic Revolution, and nationalist elements in the PRI have all vowed to cooperate in mass protest. More recently, at the end of September 2003, the Mexican Electric Workers Union (SME) and allies mobilized more than 50, 000 people to the *Zocalo* the main central square in México City in opposition and protest over privatization plans and distributed 10 million leaflets across the country to urge actions against the government proposal to provide incentives to private companies to build generating plants financed with national pension funds. A statement signed by leaders of both Mexican electrical unions argues that "In Mexico, the people rightly think that the electrical industry and the petroleum industry should be public property and that such public property is the fundamental basis for their nation's existence and of their national sovereignty." (Bacon, 2003)

The controversial Mexican privatization program has led to a high concentration of capitals and income of local and foreign investors who have penetrated the strategic sectors of the Mexican economy. One major concern in the privatization process of Mexico is that the new owners of privatized companies are foreign investors as it is the case of the bank and financial institutions where less than 10 percent is in the hands of Mexicans and for some other firms, the percentage of foreign ownership has grown to very high levels.

Privatisation in banking and financial services is associated with mergers and acquisitions done by larger international banking groups and only a limited domestic investors remain in control of less than 10 percent of banks. City group from USA has bought BANAMEX, BBVA from Spain has acquired BANCOMER, HSBC from Hong Kong and Shanghai is the owner of BITAL, Santander from Spain has SERFIN, Nova Scotia Bank bought COMERMEX and the list continues. Prices for services have increased in such a way that last year's profits came mainly for the sale of services.

These acquisitions and mergers make it difficult to distinguish the effects of ownership and reorganisation. The possible benefits of privatisation can be overshadowed by higher profit margins, in particular if there is also higher concentration because of mergers (Willner, 2003b). Mergers may also aim at offsetting the competition that integration was meant to achieve (Neumann *et al.*, 1985; Sugden, 1983). We agree with the conclusive statement of Willner (2003b: 19) that mergers in manufacturing as well as in banking “may be a reason for concern in the future, and a return to non-commercial objectives might require renationalisation”.

The World Bank has admitted that privatization of state-owned companies in Mexico has contributed to an increase in private monopolies with the consequent concentration of wealth acknowledging that "there has been a worsening of the already skewed and concentrated pattern of ownership distribution in the economy and an increase in vertical integration. Only a small group of local conglomerates have been involved in purchasing public enterprises" According to the 1991 Internal Audit Report (Heredia, and Purcell, 1994: 5). In Mexico, the number of billionaires rose from 2 to 24 in only six year period, from 1988 to 1994.

Two years after the privatization of its banking system, in December 1994, Mexico was forced to devalue its peso which set off a macroeconomic crisis characterized by increased exchange rate volatility, further devaluation of the peso and was followed by a financial sector crisis and bailout. The meltdown of the Mexican stock exchanges resulted in the loss of half of the stocks value and share prices, for major Mexican companies quoted on Wall Street, dropped 75 percent within a few months. However, after this situation was resolved a deeper crisis in financial markets came in the form of the devaluation of the peso and the sovereign-default crises. The majority of the governmental crises, without a degree of investment (as is the case of Mexico), were caused by characteristic weakness in governance. Concerns about corporate governance in Mexico has increased due in large part to the demands of international investors and the pressures faced by newly privatised companies (Husted and Serrano, 2001). If local people and foreign investors fear the Mexican peso will be devalued, they may convert pesos into dollars.

The privatization process in Mexico has not been used in to increase competition by eliminating the former public monopolies. Rather than leading to increased competition and economic efficiency, the privatization process has led to a increasing concentration of income and wealth, while at the same time in the penetration of strategic sectors of the Mexican economy by foreign investors, such as in the electricity and oil industries.

Some state owned companies referred to as ‘public utilities’ considered unsuitable for private ownership because they operated in natural monopoly markets, reflecting their economies of scale and scope, such as the Mexican Telephone Company (TELMEX) and Ferrocarriles Nacionales de Mexico, the Mexican rail transport, nevertheless, were privatised without any market regulations and fatal consequences for the consumers. Further more, prices of these services conceal disparities in the distribution of the welfare gains between different consumer groups affecting the ones with lower income. In most of the privatised public utilities companies, prices have risen, such as the case of the increasing toll of roads, transport and telecommunications. Prices are market-oriented with very limited controls, as for example in the case of toll roads and bank and financial services, prices have gone up to become one of the most expensive in the world and had been the main source of profits.

After the transferring property from public to private ownership monopoly positions still exist such as the case of TELMEX. From a normative perspective, consequences of competition in the markets for network telephone services are the abolishment of monopoly rents with a subsequent reduction of tariff levels, increasing incentives for cost efficiency, optimization of telephone service networks, more rapid reaction of prices to changes in the costs and demand structure, increasing price-quality options. Changes in service quality considered as a multi-dimensional variable, are difficult to measure since privatisation, but there are some evidences that service quality is at the expense of prices.

The privatisation of Telmex was a landmark which established the antecedent that in spite of their size, the public utilities could be sold off to a large investors, opposing the principle of creating a share-owning democracy. Until today, as a private company, Telmex has manipulated the political and economic environment to remain as a monopoly demonstrating that the privatization program in Mexico has not led to the expected increase of competition and economic efficiency. The total assets of the new owner of Telmex are more than the annual income of the combined poorest 17 million Mexicans. Although it had been projected by some analysts, that consumers would benefit in the long run, consumers have not received any benefits on improvement of cost and quality of

telephone services. For privatised companies operating in non competitive markets reducing service quality to the disadvantage of consumers not necessarily leads to a loss of market share.

There is not any specific regulatory agency to protect the telephone consumer services from monopoly abuses until real competition will develop. The weak competition on the market has caused prices to go up, In the utilities sector, the high households' prices for telephone is maintained by the privatized monopoly TELMEX. Since the privatization of the TELMEX, the infrastructure for long distance telephone services are monopolistic bottlenecks, with the need for adequate access regulation and a massive private investments in alternative long distance infrastructures is needed to be both more active and potential competition

## **Some Concluding Remarks**

The state owned enterprises were created to promote growth and industrialization and consequently, their performance must be assessed according to these objectives in such a way that their success or failure is to a large extent a question of weather the aims have been reached at reasonable costs. State owned companies were downsized during the deep crisis of 82 and 94 despite some rescue operations. Today, the remaining state owned companies become more oriented to customers and to achieve growth through higher output, productivity and profitability share holder value oriented, more conscious about technological development and environmental considerations and still are responsible to take social welfare, support private firms at the expense of their own profitability such as the case of CFE supplying low prices of energy to the private manufacturing and services sectors.

Furthermore, still supply income revenue from their profits to the federal government representing a substantial part of the budget. The distributional effects on income have an impact on social welfare and consumer welfare. This is consistent with the finding of Wilner (2003b:17) who contends that "Social welfare can be reduced despite lower costs and vice versa. But it can also increase despite a fall in consumer welfare, so it may make sense to analyse distributional effects and quality as well". Social welfare has been severely damaged with privatisation process because the distributional effects on income and the concentration of ownership in private hands, affecting more the poor people with lower income per cápita, As Willner (2003b:19) concludes "social welfare has hardly changed because of privatisation in manufacturing and banking, because of the absence of a change in objectives and the lack of evidence of an ownership effect on financial performance and cost efficiency."

Therefore, public and state owned companies are in good health despite the campaign against their prestigious while some privatisations have resulted in an economic mess. For historical and ideological reasons, privatisation has been a large and hot political issue in Mexico as there has been more than 1,200 state owned companies to privatise. Nationalised public enterprises were at the core of Mexican economic nationalism and have faded as Mexico became part of the North American Free Trade Agreement. To summarise which sectors privatisation in Mexico has failed or was successful could be very often ambiguous and subject to qualitative judgements in particular cases.

The privatization policy in Mexico has not achieved the expected economic growth and developed promised. The success of privatization process is partly a question of its objectives. Regarding prices to sell of public companies these have not always been sold at a satisfactory price which means sales revenues for the State. If the aim was to achieve divestiture and widespread share-ownership which are not ends in themselves, until now the results have being disappointing with high concentration of private ownership in only few investors. Only part of the sales proceeds had been used to reduce public debt and not for public investment in infrastructure required for the development of the *country*. *Unfortunately, most of the sales revenues have been mismanaged.*

Unfortunately, the lessons from Mexican privatisations, deregulations and movement to free trade and away from state protectionism are not always positive. Deregulation and privatisation of state owned firms are factors in changing the competitive situation while the state owned enterprises can also promote competition with private companies. Some of these privatisations have resulted in private monopolies or quasi monopolies, such us privatisation of TELMEX, the Mexican Telephone Company. Privatizations of utility monopolies led to meet higher investors expectations on returns and profits becoming the main gainers rather than the consumers.

To develop regulatory governance of privatized companies with market dominance activities not only takes time but also a new culture. Mexico does not have a long tradition of independent regulatory agencies while monopolies are regulated through: direct intervention as the case of the oil company, the two electrical firms and the privatized telephone company. Therefore, regulation of competition is necessarily a pressure on time and culture to establish a new economic policy with fairer environment for investors and consumers at large.

It is often unclear to what extent privatisation rather than other factors are responsible of higher competitiveness and economic efficiency. Parker (2004) contends that empirical studies often proves difficult to separate out the effects of ownership, competition, regulation and technological change on efficiency. Ownership change does not appear “to have a significant effect in terms of improving economic performance where there is market dominance, especially in terms of welfare gains to consumers.” (Parker, 2004: 21).

In terms of the effects and impact of privatisation on firms’ efficiency, available the evidence available is not conclusive and suggests that there are other factors more important than ownership change, namely competition, the buyer type and the firm’s size and capital intensity. These factors can do that privatisation always would play a complementary and reinforcing role (Villalonga, 2002). Therefore it is often unclear how far privatisation rather than other factors is responsible for any economic efficiency gains achieved.

Nevertheless, the lessons from the Mexico’ privatisation are far away from the lessons of UK’s privatisation which, according to Parker (2004:21) are that “the empirical evidence is consistent with economic theory and suggests that competition and in the absence of competition effective state regulation are important if privatisation is to lead to performance improvements, including lower prices and improved services”.

Two different deep ideas about economic development and workers rights have emerged in Mexico after the implementation of the privatization plan. These two ideas are separated by over whose priorities of workers or investor will prevail. Wages and working conditions were better in state owned enterprises in comparison with privatized companies bus companies often because of different collective agreements.

The neoliberals behave in a two-way strategy: on one side, destroying the activities of the social society and in the other side, destroying the traditional functions of the State, and assigning a new role under the principles of liberal democracy and policies of free market relations... as it were another private enterprise. All this destruction is done in name of a more slim State and privatizing its functions, but the State do not disappear or diminish and what is really wanted, is to impose a distinct State capable of destroying the capacity of civil society to exercise resistance and opposition in front of the State policies, inspired on total market policy, which responds to interests of globalization and allows the instauration of a "New International Order", where collective security rests on general acceptance of principles of free market.

From this perspective, it is the same Mexican State who assumes the anti-State ideology promoted by government, entrepreneurs, bankers and entities of the neoliberal model who assign an active role to the State as propulsion of its own reduction to allow a major protagonist to the private sector of the economy in such a way that do not compete each other for financial resources. But at the same time, upon oppositions emerging from the breaking down of social equilibrium and consensus require that the Mexican State may be the most strong possible to fulfill its functions within the economic model and guarantee the macroeconomic equilibrium.

State owned enterprises are privatized when they are profitable and the government stuck with the unprofitable ones, except few like the “crown jewels” PEMEX AND CFE that belong to the energy sector. Specifically, these enterprises were nationalized in the last Century and remain public because the privatization process is heavily loaded in terms of ideological reasons and for being considered in provisions of the Mexican Constitution for public ownership for being strategic for development of Mexico, although have been serious intents to sell them off. To push over the selling off of these state owned companies, neoliberals strategize for achieving an Energy Reform to make Constitutional amendments favorable to remove ideological arguments to finally achieve privatization plans.

If the energy sector privatization plan succeeds, the nationalist development policy will be buried. However, if the privatization plan is defeated could be possible to recover national economic sovereignty and independence. The privatization program can not be defeated without having an alternative project of development based on a strong internal market with well paid workers to oppose to the neoliberal economic development project.

Trough mechanisms of cooperation, trade unions, new social movements and civil society have resisted and fought to oppose privatisations plans, with a limited success, because they consider that results are unfair. Thus, today privatisations are not widely accepted in principle due to the reluctance to fulfil requirements of transparency information and governance rules during the promotion of the privatisation process..

However, it is safely to conclude that changes of ownership through the privatisation process in Mexico has led to the foreign investors to own the most profitable former state owned enterprises which under the spirit of globalisation of business has terminated any sentiment of national capitalism.

Finally, we can conclude that the policy of privatization in Mexico has not achieved the aims related to increase economic growth and development, but has contributed significantly to become a subsidiary economy owned and managed by transnational and multinational corporations. However, this aim is politically neither desirable nor feasible for the economic development of Mexico.If good performance of privatisation is required, actually it is successful only if state-owned companies are so well managed that there is no need to privatise. As Berne and Pogorel (2004;15) contend, “it is always easier to privatise profitable companies... But at the same time, it is more difficult to explain why well-run entities need to be privatised”

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# Strategic Options of Internationalization in Korea

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## Abstract

Globalization of economy brings both opportunities and threats especially for companies in developing countries such as Korea. Globalization is an opportunity because it may expand the size of market for the company where globalization brings a threat for developing global competitiveness. If the company has already built competitive advantage in its business domain, the company can easily transfer market growth to profit improvement. However, if the company has not developed competitive advantage, globalization of economy will give a serious threat for the survivor of the company. The company might lose its own domestic market share. For the less famous brand of product or company name, international expansion is a challenging strategy. The study evaluated organizational performance of companies that try international expansion by utilizing Miles and Snow's strategy typology. We clustered organizations based on their strategy typology (prospector, analyzer, defender, and reactor) in view of the level of product diversification, new product development instances, level of localization, and autonomy of foreign subsidiary. With the strategy typology, we evaluated international strategy in view of product competitiveness, marketing strategy, human resource strategy, and organizational strategy. The regression result demonstrates that the performance of the company is significantly higher when the company employs prospector strategy. We also found out that product quality and emphasis for developed countries in international expansion are the most important factors for success.

## Introduction

Organizations have long sought to achieve competitive advantage in dynamic environment. Gaining competitive advantage sometimes represents to be different from market participants. Many strategic management researches found out that applying different strategies eventually reshapes organizational internal processes and external market structure (Child, 1972; Bogner, 1993).

However, similarity among organizations also has received a great deal of attention in strategic management and organizational theories (Deephouse, 1999). Institutional power that forces the organizations to be similar each other was the main stream of research. For the most part, researchers have focused on one side of the similarity question, that is what the value of being different is, or what is the value of being the same.

Where gaining competitive advantage has been a foremost objective for the organization, being the same (utilizing identical strategy) cannot generate the main objective. Being different, an organization benefits because it faces less competition, *ceteris paribus* (Barney, 1991; McGrath et. al.,1995). By being the same, an organization benefits because it is recognized as legitimate, *ceteris paribus* (Dimagio and Powell, 1983; Meyer and Rowan, 1977; Pfeffer and Salancik, 1978).

Globalization of economy enforces organizations into two mutually exclusive directions. One way leads organizations being the same by adopting global standard in organizational management and production processes. The other way leads to be different pursuing organization specific competitive advantages. Researchers recognized the tension between the need for a firm to be different and the need for a firm to be the same. Porac, Thomas, and Baden-Fuller (1989) suggested that strategist needed to balance on a competitive edge between simultaneous pressures to conform and to differentiate. Abrahamson and Hegeman (1994) observed that strategic conformity reduces both competitive risk and opportunities for competitive advantage. Chen and Hambrick (1995) noted that theory and research on competitive conformity – its cause and effects – should be a high priority for the field of strategy.

## Miles and Snow's Strategy Typology

The Miles and Snow (1978) strategic typology – defenders, prospectors, analyzers, and reactors – has generated a comparatively large amount of interest, investigation and support (Hambrick, 1979; Meyer, 1982; McDaniel and Kolari, 1987). Although these studies have contributed significantly to the body of knowledge on strategic archetypes, there is nevertheless a need for further research. For instance, a review of strategy literature reveals an increasing level of operationalization and measurement of strategy constructs (Bourgeois, 1981; Ginsberg, 1984). In this context the paragraph approach to measuring Miles and Snow's strategic types employed in a number of previously referenced studies reveals a tendency to oversimplify the multi-dimensionality of archetype construct (Conant et al., 1990). Typically, only two of three of strategic dimensions explicated in Miles and Snow's adaptive cycle model are considered and evaluated in this approach. Furthermore, most previous research has tended to exclude the reactor type from the scope of analysis. The need for multidimensional construct of strategic behavior is gaining a strong support for assessing organizational strategy. Furthermore, the relationships with overall performance have not gained strong references yet.

Miles and Snow (1978) proposed a relatively complex strategic typology interrelating organizational strategy, structure, and process variables within a theoretical framework of co-alignment. The theoretical foundations of Miles and Snow typology can be traced to Child (1972) classic conceptualization of strategic choice. Miles and Snow proposed that organizations develop relatively enduring patterns of strategic behavior that actively co-align the organization with its environment. They viewed the 'adaptive cycle' characterizing this process as involving three imperative strategic 'problem and solution' sets.

The first one is an entrepreneurial problem set. It centers on the definition of an organization's product-market domain relating how the organization orients itself to the marketplace

The second one is an engineering problem set. It focuses on the choice of technologies and processes to be used for production, service, and distribution.

The third one is an administrative problem set. It involves the selection, rationalization, and development of organizational structure and policy processes. It involves how the organization attempts to coordinate and implement its strategies. Each of the three problem sets involves multiple dimensions.

Based on the three domains of adaptive cycle, the characterization of strategy typologies can be expressed below. A firm following a prospector strategy frequently adds to and changes its products and services, consistently attempting to be first in the market. Such a firm tends to stress innovation and flexibility in order to be able to respond quickly to changing market conditions.

An analyzer's strategy is to maintain a relatively stable base of products and services while selectively moving into new areas with demonstrated promise. An analyzer tends to emphasize formal planning processes and tries to balance cost containment and efficiency with risk taking and innovation.

A defender's strategy is to offer a relatively stable set of services to defined markets, concerning on doing the best job possible in its area of expertise. It emphasizes tight control and continually looks for operating efficiencies to lower costs.

A reactor essentially lacks a consistent strategy. Its strategy has characteristics of each of the other type's strategies at different times and thus is difficult to categorize clearly.

A recent extensive review of research using the Miles and Snow typology found few attempts to assess the reliability or validity of its measures systematically (Zahra, 1990). Snow and Hambrick (1980) and Hambrick (1981) reported interrater reliability assessments for expert raters ranging from .49 to .76 and Boeker (1989) reported reliabilities ranging from .57 to .82. Hambrick (1983) also found that prospectors had a significantly higher ratio of research and development expenses relative to sales than defenders and a significantly higher ratio of marketing expenses relative to sales. Smith and colleagues (1986) found mixed support for the typology's validity. For the most part, researchers have inferred its validity from various qualitative observations without conducting further testing (Snow and Hrebiniak, 1980).

Researchers have used the typology to study strategic behavior in a wide variety of organizations and industries. Snow and Hrebiniak (1980) found that prospectors, analyzers, and defenders outperformed reactors in

competitive but not highly regulated industries. Hambrick's (1983) data indicated that defenders consistently outperformed prospectors in profitability and cash flow but that prospectors outperformed defenders in market share gains in innovative industries. Zajac and Shortell (1989) discovered that prospector and analyzer hospitals outperformed defender hospitals in the rapidly changing health-care environment, results that Shortell, Morrison, and Friedman (1990) subsequently confirmed. The typology has also been used to differentiate tobacco firm's responses to environmental threats (Miles & Cameon, 1982).

## Research Design and Methodology

Snow and Hambrick (1980) distinguish between four broad approaches for identifying strategy typology. The approaches to measure strategy typology are self-typing, objective indicators, external assessment, and investigator inference.

Conant et. al., (1990) identified some missing rationales in four approaches. Based on their arguments, all four of these approaches have been employed in previous operationalizations of Miles and Snow's strategic typology. Some studies have relied on single-item scales when operationalizing what is recognized to be a multi-dimensional construct.

The paragraph approach has been the most widely employed method to operationalize Miles and Snow's strategic typology. Recent attempts have been made to operationalize and measure Miles and Snow's strategic types using multi-item scales. Although many researchers have advocated the use of multiple approaches to operationalize and measure key operational constructs, few studies have employed multiple approaches to operationalize and measure Miles and Snow strategic typology.

The use of single-item scale is generally viewed appropriate, when they relate to a simple unidimensional construct, and can be measured with minimal measurement error. However, such scales are of limited value when they cannot adequately capture the broader concept being measured (Nunnally, 1978).

Hambrick (1983) proposed unidimensional approach for the strategy measurement because strategy typology needs to be captured in integrative nature and aspects. The paragraph approach requires that respondents read short paragraph-length descriptions of each of the four strategic types, and then select only one type that best represents his or her organization. Even though the paragraph approach has been widely used, it cannot be free from personal bias. The respondents' behavior may vary when they really make a decision and when they make an evaluation themselves.

We decided to employ integrative measurement using self-typing, objective indicators, and investigator inference. Self-typing is used for the questionnaire responses. Objective indicators are used to measure respondents' strategic behavior such as market orientation, process definitions, and foreign business strategies and so on. However, the final judgment for organizations' strategic typology is based on the factor analysis, which made composite components into a single strategy typology.

The advantage of this process is two folds. First, this process does not generate any bias for the respondents to be only one strategy typology. Responding various strategic process questions, the respondent's strategy typology is naturally declared. Second, the concept of strategy typology can employ some other distinguishing factors to differentiate strategy typology. For example, the global economy emphasizes the strategy for internationalization whether the organization is big or small. International business for the organization is not an option any more. Bringing respondents from the relatively homogeneous pool, Korean companies, we could generate international strategy as another aspect for strategy typology.

The questionnaire items were developed for strategy and market orientation of organization. The sample was selected from top 2,000 leading exporters in Korea. As Korean economic policy has been an export orientation from early 1960s, top exporters can be safely regarded as industry leaders.

The response rate was 22.5% (458 respondents) and most respondents were middle level managers. As the respondents were not top level, utilizing strategic orientation from the multiple measurements is more appropriate.

Table 1 presents descriptive statistics for the research variables.

TABLE 1: DESCRIPTION OF VARIABLE AND CONSTRUCT USED IN THE ANALYSIS

	N	Minimum	Maximum	Mean	Std. Deviation
Sales	428	.01	280.00	1.6786	14.9506
Profit	430	1.00	7.00	4.2488	1.2237
Future_sales	429	.00	7.00	4.0023	1.4749
Prod_diversity	427	1.00	7.00	5.0023	1.46236
New_prod_intro	425	1.00	7.00	4.6471	1.52577
Adaptability	427	1.00	5.00	2.2201	1.17416
Autonomy	383	1.00	7.00	5.1279	1.59739
LnCapital	406	-2.30	10.74	2.7768	2.23477
LnEmployees	429	.69	10.82	4.4321	1.85932
Market_develCntry	423	.00	1.00	.6572	.47520
Price_ratio	426	30.00	150.00	82.3897	14.41595
Own_brand_equity	427	.00	100.00	58.3590	44.01088
Quality	427	14.30	250.00	85.5265	17.58650
Product_comptncy	429	1.00	7.00	6.4242	.93327
Price_comptncy	430	2.00	7.00	6.3209	.92330
Promotion_comptncy	429	1.00	7.00	4.5221	1.54907
Place_comptncy	427	1.00	7.00	4.9368	1.60931
HR_language_Know	430	1.00	7.00	4.5302	1.37883
Defender	378	.00	1.00	.3122	.46399
Prospectors	378	.00	1.00	.3228	.46815
Reactors	378	.00	1.00	.1746	.38013
Analyzers	378	.00	1.00	.1905	.39320
Valid N (listwise)	344				

We developed and modified questionnaire items in order to differentiate strategic typology. Based on the Miles and Snow’s theory and multiple components from the responses, we applied cluster analysis in order to classify organizational strategy typology. Our study generated four clusters that are significantly different each other and four clusters successfully categorized four strategy typology. Table 2 shows cluster analysis.

TABLE 2: FINAL CLUSTER CENTERS

	Cluster			
	Defender (n=118)	Prospector (n=122)	Reactor (n=66)	Analyzer (n=72)
Prod_diversity	4.13	6.25	3.64	5.68
New_prod_intro	3.62	5.95	3.18	5.50
Adapt	2.24	1.65	3.05	2.39
Atonomy	6.03	6.19	3.24	3.68

The cluster analysis shows four distinguished aspects for each strategy typology. The aspects are product diversity, new product introduction, adaptation, and autonomy. Product diversity refers that the organization’s strategic intent to provide various versions of the product. New product introduction means the organization’s ability to introduce new product in a short period of time. Adaptability denotes the organization’s effort to modify the product for the various markets. Autonomy indicates the level of decentralized decision-making structure.

Table 3 shows frequencies of strategy typology from the data. The number of responses shows that defender and prospector are similar and reactor and analyzer are also similar.

TABLE 3: FREQUENCY TABLE

Frequency	Valid Percent	Cumulative Percent	
Defender	118	31.2	31.2
Prospector	122	32.3	63.5
Reactor	66	17.5	81.0
Analyzer	72	19.0	100.0
Total	378	100.0	

We developed the rationale that the relationship between organizational strategy typology and organizational performance should be somewhat significant. As most strategy typology researches have not concluded, using relatively homogeneous sample (Korean leading exporters) is expected to generate significant result.

First, we utilized ANOVA in order to investigate the performance relationship with strategy typology. We devised three components for performance, such as profit, sales and future sales expectation. The rationales to regard this way are two folds. First, the sample is relatively homogeneous. The leading exporters in Korea are relatively stable in their market position and their strategy has not been changed very much. Second, compared to domestic business oriented organizations, exporters need to concentrate their strategy for increasing sale and improving profit in relatively in short period of time. The government policy and incentives lead relatively narrow scope for foreign business

Table 4 presents the relationships among dependent variables and strategy typologies. The analysis shows only profit demonstrates significant relationship with strategy typology.

TABLE 4: ANALYSIS OF VARIANCE

		Sum of Squares	df	Mean Square	F	Sig.
sales	Between Groups	955.342	3	318.447	1.256	.289
	Within Groups	94350.467	372	253.630		
	Total	95305.809	375			
profit	Between Groups	26.340	3	8.780	5.893	.001
	Within Groups	557.205	374	1.490		
	Total	583.545	377			
fsales	Between Groups	15.999	3	5.333	2.450	.063
	Within Groups	811.831	373	2.176		
	Total	827.830	376			
	Within Groups	700368.932	371	1887.787		
	Total	716958.251	374			

Based on the ANOVA result, we decided to investigate the most contributing factor with organizational performance, in other words the relationships with profit.

The export market has been defined as product competitiveness (Porter, 1980). The price competitiveness or quality advantage may lead to the superior performance. Considering strategy typology, product competitiveness may be independent if we consider relatively short period of time. If we consider longitudinal standpoint, strategy typology and product competitiveness may be strongly correlated. Based on this short-term perspective, we developed hypothesis 1 below:

H1: Organizations that have higher level of product competitiveness will have higher rate of profit.

As we investigated middle managers, their time frame could not be long enough. In the cross sectional research, but not in the longitudinal research, organizational profit is strongly related with marketing strategy. Rigorous marketing strategy tends to improve short-term profit. However, strong marketing strategy without improving competitive edge eventually erodes the initial advantage. We considered marketing strategy as a significant factor related with profit. Based on this argument, hypothesis 2 was developed:

H2: Organizations that have strong marketing strategy will have higher rate of profit,

In the global business, the most important factor for competitiveness has been considered as human resources (Peng & Luo, 2000). Where technical resources or institutional advantages can be easily eroded, human resources are hard to imitate and to substitute. Organizational human resource is the only source of sustainable competitive advantage. Based on this argument, we developed hypothesis 3:

H3: Organizations that have higher level of human resource will have higher rate of profit.

The argument of strategy typology is sometimes criticized as ex post description. This means the rather than managerial decisions and actions, organizations' decision making habits are articulated afterward. In order to minimize this critic, we evaluated the strategy typology based on respondents' questionnaire items so called 'integrative measurement using self typing, objective indicators, and investigator inference.' We believe that strategy typology and organizational performance may have somewhat stringent relationship. Based on this argument, we developed hypothesis 4:

H4: Organizations that have different strategy typology will have different rate of profit.

TABLE 5: RESULTS OF REGRESSION ANALYSIS

Variables	Basic Model	Product Competitiveness	Marketing Strategy	Human Resource	Strategy Typology
<b>Basic Model</b>					
LnCpital	.120	.085	.092	.078	.065
LnEmployees	-.012	-.022	-.030	-.018	-.038
Market_develCntry	.118*	.140**	.142**	.149**	.143*
<b>Product Competitiveness</b>					
Price_ratio		.018	.024	.023	-.015
Own_brand_equity		.059	.052	.061	.052
Quality		.160**	.146*	.136*	.152*
<b>Marketing Strategy</b>					
Product_comptncy			.044	.025	-.040
Price_comptncy			-.036	-.033	-.018
Promotion_comptncy			.100	.092	.088
Place_comptncy			.003	-.009	-.023
<b>Human Resource</b>					
HR_language_Know				.095	.059
<b>Strategy Typology</b>					
Defender					-.190**
Reactor					-.179**
Analyzer					-.057
R <sup>2</sup>	.026	.055	.069	.077	.111
R <sup>2</sup> Change		.029	.014	.008	.034

§ The reference group in the strategy typology is prospector.

\* p<.05, \*\* p<.01, \*\*\* p<.001

## Results

The basic model includes the size of the organization such as capital range and number of employees and target market. Capital and number of employees were recoded with natural log because the value is high. Target market is distinguished by the main foreign market is either less developed countries or developed countries. The strategic orientation may vary by the target market with organizational demographic variables. If the organization emphasizes developed countries for its target market, the strategy should be different from the organizations for less developed countries. The strategic orientation for different level of countries will also end different level of profitability by dealing with more value added products. The basic model results show that target market orientation has a

significant relationship with the profitability. Other factors that reflect the size of the organization such as capital and number of employees did not show significant relationship.

The second model, adding variables concerning product competitiveness factors show that only quality is the significant predictor for profitability. R square change was .029. Price ratio and brand equity did not have significant relationship with organizational profitability.

The third model added marketing strategy resulted that no significant relationship with the level of profitability. R square change was .014.

The fourth model adding organizational human resource also resulted in no significant relation with performance. R square change was .008. Human resource in this study measured organizational members' foreign language capability.

The final model adding strategic typology resulted in significant relationship with organizational performance. Prospector strategy is significantly outperformed other strategy organizations. We based prospector as a reference group to investigate significant relationship. Many strategy typology researches concluded that prospector strategy demonstrated significantly higher level of performance (Conant et. al., 1990; Shortell and Zajac, 1990). Based on the past research results, we based prospector as a reference strategy. R square change was .034 and R square was .011.

## Conclusion

The study employed Miles and Snow's strategy typology for evaluating organizational performance of Korean leading exporters. The results demonstrated that prospectors outperformed other strategies.

This study contributed to the academia and practitioners in three perspectives. First, strategy typology study has pushed respondents to be only one set of strategic behavior. Other options were not available. In the information age, fast changing and very turbulent environment urges organizations to be fast adaptors. Strategy typology research should adopt this phenomenon. Based on organizations' various strategic behavior, researchers could apply triangulation to assign organizations' representative strategic behavior.

Second, not many studies are done for Korean exporter recently. Entering into information age, the Korean exporters showed structural change from utilizing cheap labor to creating new technology and market such as MP3 players and multi functional cellular phones. In the transitory environment, this study will light a way that organizations should follow.

Finally, this study shed a light to both academia and industry analysis practitioners. Two strategic options in global environment, being the same or being different, have not met any conclusive remark. Still some researcher and practitioners emphasize organization specific factors as the only source of sustainable advantage. Others start to consider revitalized institutional power considering fast spreading technology and standard setting environment. Keeping organization specific advantage might lose whole market abruptly as Sony's Beta max video cassette disappeared. Our study shed a clue for strategic options such a turbulent digital business arena. Organizations need to use bold competitive position with maximum flexibility. Traditional marketing strategy may not appropriate. Emphasizing quality in the arena, bold prospectors will survive in the global marketing arena.

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# The Creation of Academic Biotech Start-ups as the Commercialization Technology of Life Science: On the Basis of Example of Hokkaido Biotech Cluster

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## Abstract

Traditionally there have been many government-university-industry cooperative biotech research projects in Japan. But in almost cases, the university researchers had so far left patents as the research results to large-scale business partners except the rights of paper writing as custom. As the result, if large-scale pharmaceuticals firms could not find the promising possibilities of enough size markets in their ROI standards from those patents, they usually tended to make those the dormancy patents in order to prevent rival's use. But according to the successful influence of Bayh-Dole Act in US as a factor, Japan's universities and national research institutes as NIAIST are also becoming eager for technology transfer as the licensing and start-up incubation. In this paper, by focusing on Hokkaido biotech cluster as a recent emerging success model, I wish to examine Japan's style of academic and public support system for biotech spin-off, and cases of pioneering biotech start-ups.

## Introduction

Even if they are on the same R & D (research and development) process, there is a big development gap in function between such stages as basic research and technology commercialization. For example, as many common results of university-industry cooperation in Japan, the articles so far tended to belong to university researchers and the patent did similarly so to large industrial partners. However, when such patents also became the jurisdiction of university TLO (technology licensing office) hereafter in order to prevent dormancy patents due to a defense purpose of the big business side in partnerships, at the same time, considerable energy injection in an unknown domain becomes necessary even for the university side at incubation of spin-offs as academic start-ups in addition to licensing patents.

If so, what kind of jump and support will be necessary to fly over a wall between such basic research and technology commercialization?

As one of key concepts, a start-up is defined as a decision making system about risk control to undertake transformation of an idea into an enterprise. And, a biotech cluster is defined as a structure enabling spin-off-leap of discontinuity for mainly academic start-ups in an R & D process from basic research of life science to industrialization.

An analysis framework with this paper is Quantum Leap. In other words, at university-industry cooperation, the course of a jump of discontinuity by academic spin-off for an opportunity of dynamic specialty partnership between basic research and industrialization must be more productive, instead of the applied research shift of whole basic research insisted on among a part of Japan's university researchers. But, even so, we have still to make clear the mechanism for improving the success probability of a jump of discontinuity.

This study purpose is to examine the reasons of jump increase of discontinuity by the academic spin-offs and the uniqueness of support mechanism for them, behind the fact of biotech start-up increase, by focusing on Hokkaido biotech cluster.

## Present Conditions of Hokkaido Biotech Cluster

### Strategy of Networking

For a purpose of economic revitalization of Hokkaido region (North Island in Japan) based on technology industrialization, Hokkaido Bureau of Economy, Trade & Industry (HBETI) has started a conception of "Hokkaido super cluster promotion strategy" focusing on information technology and biotechnology as core technologies since

2001.

As to biotech industry of both core technologies under this grand design, “Hokkaido biotech 21st century social gathering” comprising of government-university-industry members devised four master strategies on the acquisition of competitive advantage, autonomous growth, chain accumulation, and expansion as industry on October 3, 2001.

Among 5 action programs on the basis of those 4 master strategies, such 3 programs has already realized as firstly a next generation post-genome research building (including open space laboratories on such as the sugar chain, protein and lipid researches) in Hokkaido University in September, 2003, secondly a biotech start-up incubator in April, 2002, and a government-university-industry cooperative research building (including experimental animal breeding facilities and clean rooms) in March, 2004 both at Hokkaido Center of NIAIST(National Institute of Advanced Industrial Science and Technology), and finally a biotech venture fund formation by local venture capital firms. Still remaining and attention calling programs are a promotion of R&D projects with regional comparative advantage (e.g. sugar chain) and creation of a global group of biotech start-ups.

Besides, Hokkaido was specially emphasized as one of the areas necessary to be promoted for the cluster formation of biotech industry in addition to Kanto (Tokyo area) / Kansai (Osaka area) in national government’s “BT (biotech) strategy general rules” of December, 2002. “Hokkaido bio / health-care promotion summit” by each head of 6 public institutions in the region (Hokkaido Government, Sapporo City, HBETI, Hokkaido Regional Development Bureau, Hokkaido Center of NIAIST, and National Agricultural Research Center for Hokkaido Region) was held and agreed on the support for companies and researchers within the region in November, 2003.

The founding number of academic start-ups increased into 23(24, as of June, 2004.). In addition, biotech companies in the region won some domestic and foreign biotech-related business awards. Furthermore, each specialized human networks such as next generation post-genome network, Hokkaido forum of biotech industry cluster and so on are also established and are supporting the biotech cluster strategy complementarily.

#### **Growth of the Biotech Cluster**

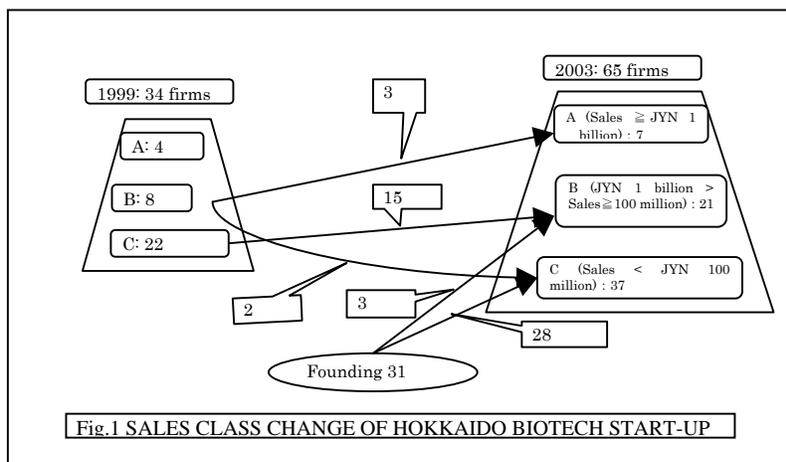
According to “Hokkaido Biotech Report 2004: Company Data Edition” by HBETI, which surveyed a 74 biotech company located their head or branch offices in the region during August-November in 2003, and received a 65 company response (answer rate 87.8%), the increase rate of medical care / medicine (in five years, 2.3 times) is the highest, although the weight of agriculture / food is still high in agriculture / food 43%, medical care / medicine 35%, environment 13%, and the other 9%, as for the type of industry distribution by the number of company. By the distribution ratio according to scale, the sample has small and medium-sized business 57(distribution ratio 87.7%), big business 6(9.2%), and public incorporated body 2(3.1%). In addition to the increase in 65 companies from 34 companies between 1999 and 2003, a pyramid formation comprising of 3 type groups in an industrial cluster (a precedence company group, a growth-stage company group, and a founding-stage company group) is highlighted, and a shift to a stable development process can be considered.

The average capital amount of a small and medium-sized business is JYN 179 million. The sales of 1999, JYN 10,544 million doubled into JYN 23,475 million in 2003. This is due to the existence of abundant agriculture, forestry, and marine resources, a natural characteristic as the climates with coolness and low humidity, the accumulation of technology / know-how, the density of universities / research institutes of biotech research, and the start of their connection of each other for the formation of biotech industry. In particular, the expanding businesses are the seed development / functional foods in a field of agriculture / food, and the synthetic DNA and antibody making in a field of medical care / supplies.

The R&D investment amount of 2003 is JYN 2,887 million, and the ratio of R&D expenses to sales is 12.3%, more than an average level 8.9% of medical supplies industry in “2003 Science and technology survey” by Ministry of Public Management, Home Affairs, Posts and Telecommunications. In addition, the R&D Investment amount by a 57 small and medium-sized business of 2003 holds total 88.3% for JYN 2,550 million, and 49 companies of them are biotech start-ups as the R&D oriented small and medium-sized firms. Such biotech start-ups mainly consist of the academic spin-offs and the entry companies from the other industries / regions.

Otherwise, as to the employment, the number of biotech company employee in the region of 2003 is 805 people. R&D worker rate to all employees exceeds 40%. And 42(71.2%) of new hired persons 59 get each job in R&D section. Among 65 companies, 49 companies (75.4%) plan new hiring, and 39 companies equal to 79.6% of

such planning companies conceive the appointment in a R&D section in future. In addition, at plural answers 78 by new hiring plan sections, 39(50.0%) response to R&D, 16(20.5%) sales, 9(11.5%) business planning, 6(7.7%) control, 4(5.1%) management, and remaining 4(5.1%) the others. In this way, by reflecting R&D orientation at the dawn stage of biotech start-ups, new hiring mainly concentrates on R&D section.



When biotech companies were classified by sales stratum, 7 companies in class A (more than JYN 1 billion) with an average JYN 2,248 million, belong to the precedence group where 6 increase the sales. 21 of an average of JYN 327 million belong to class B (from more than 100 JYN million to less than JYN 1 billion) as the growth stage group, where the growth of 14 is remarkable. The other 37 of class C (less than JYN 100 million) belong to the founding-stage group, with an average of JYN 24 million. In class C, while 8 companies of each entry in 1999 face the initial sales only after the third quarter, 20 among 23 companies which entered in the 2000-2002 saw the sales already in 1 or 2 quarters. Thus the know-how and business model for overcoming the Death Valley (initial deficit period) are built in a recent biotech start-ups. In the whole 3 classes, the growth of the cluster can be observed for the results as the class down 2, class up 18, and founding 31 since 1999. In addition, as there are already 3 companies which could start first business year from class B, the know-how from past experience is built in to the business model that can improve growth speed from start.

A number increase of company, a weight increase tendency of medicine industry, and their R&D inclination in the biotech cluster reflect considerable degree a number increase tendency of academic spin-off. Among existing 18 companies of 23 academic spin-offs in investigation, 2003 sales of 16 answering company totals increased by the last year 114.2% for JYN 1,106 million, and the employment increased by 18.1% for 98 employees. The sales in the academic spin-off entirety seems almost equivalent to the scale of one class A company. In particular the sales grew rapidly with 8.4 times in three years.

TABLE 1: TREND OF ACADEMIC SPIN-OFFS

Year	1999	2000	2001	2002	2003
Firms(Number)	2	5	6	15	23
Sales(JYN Million)	X	147	348	544	1,165
Employee(People)	X	19	32	83	98

#### Increase of Academic Spin-offs

As a characteristic of academic start-ups, by inspecting precedents and letting the business model evolve, the number of companies is increasing those which are planning a steady growth while making a balance between a daily profit and a R&D investment. This decision-making method seems to give good influence on the sales stability from their business start and on the reliable growth. In addition, 74% of start-up locations are Sapporo-city, and

most of their associated universities concentrate on Hokkaido University.

TABLE 2: CHARACTERISTICS OF ACADEMIC SPIN-OFFS

Firm Location	Firm Number	Affiliated University	Firm Number ( Plural Answers)
Sapporo	17	Hokkaido University	14
Iwamizawa	1	Otaru University of Commerce	5
Kuriyama	1	Hokkaido Tokai University	3
Muroran	1	Sapporo Medical University	1
Asahikawa	1	Kitami Institute of Technology	1
Shirataki	1	Muroran Institute of Technology	1
Obihiro	1	Asahikawa Medical College	1
		Obihiro University of Agriculture and Veterinary Medicine	1

Furthermore, for not only each other's competition but also cooperation, a private organization "Hokkaido biotech business network forum (a popular name: Dosanko-bio)" is established for a purpose of mutual supplement, cooperative market development, and exchange of business founding experience among the regional academic spin-offs. Thus a positive and autonomous movement for a self proliferation already begins.

## Incubation by Basic Research Institutions

### Hokkaido TLO

#### (1) Researchers' Interest in Commercialization

According to "Hokkaido Biotech Report 2004: Researcher Data Edition" by HBETI, while there is a bias possibility due to a low answer rate 25.5% (248 biotech researchers) of the region, main responses are university-industry cooperation 72.6%, research / education 71.0%, and academic research 65.3%, as return methods of research seeds to society, and greatly separate not-in-mind 0.4%. Above all, a ratio of university-industry cooperation was higher than that of research / education along a traditional value system of a researcher. According to the patent-filing experienced researchers through a cooperative research (141 plural answers), big business partners mainly so far had monopolized such patents, in the partner companies 72.3%, researcher oneself 32.6%, TLO / JSTA(Japan Science and Technology Agency) 27.0 %, and a ratio of the other 2.8% as a formal filing person, and only articles belonged to researchers. As a result, such risk was high that a patent with a potential of small market scale was over without any practice regardless of precious research results, as a dormancy and defense patent. As to 82 people having replied also to the investigation of 2002 about founding willingness of academic start-ups, while during 2002-2004 positive opinions increase in total as a already founding from 0% to 9.8%, a wish to found within 1 year from 6.1% to 7.3%, and a wish to found within 2-5 years from 18.3% to 13.4% (becoming less but still high), at the same time a negative opinion also increases as not-interest from 14.6% to 18.3%.

In this way, their intention of fruit return to society lifts it for the research financial funds, and then they do not welcome the past situation that all results including patents except articles belong to partner companies. Otherwise, it can always imagine a struggling figure facing a dilemma between the time to devote her to both participate in realization and watch embodiment of research results and the research time itself. In other words, it is a general image of a basic researcher who has a strong intention on industrialization of own research results to prevent from a monopolistic intention of big business partners, but, on the other hand, is simultaneously reluctant to involve with it because of the reduction possibility of research time.

#### (2) Management Team

Hokkaido TLO was established as "Wide area model TLO" on December 6, 1999, based on the decision of Hokkaido academic consortium (a representative board of universities in the region), and was approved in the tenth in the whole country based on "Universities technology transfer promotion act" by national government on December 24, 1999. At a March 2004 point in time, it has a capital JYN 60 million (university teachers 60%,

companies 40%), and a number of stockholder 350 (university teachers 10%, companies 40%). It can enjoy economic effects such as a coverage of technology transfer operating expenses within less than two thirds by a relevant government grant, a free use of an office in Hokkaido University since April, 2001, a free hiring of two (each full-time / part-time) patent-marketing-advisers dispatched from Japan Institute of Invention and Innovation (JIII) and an appointment of national university professors for directors (Hokkaido University 3, Kitami Institute of Technology 1).

Ten executives (academic 6, industry 4) come from Open University / Hokkaido University (emeritus) 1 as president, Hokkaido University and Hokuyo Bank each one as vice presidents, Hokkaido University (economy / engineering) 2, Kitami Institute of Technology 1, one private company 1, Hokuyo Bank 1, Hokkaido Electric Power 1 as directors and Hokkaido Institute of Technology 1 as an auditor. Additionally there is an advisor from Hokkaido Electric Power. As to 11 officers, it accepts business experienced persons from super-cluster supporting organizations, as 2 patent marketing / technology advisors from JIII, a supporter for academic spin-offs from Hokuyo Bank, each one manager for general affairs and for project control from Hokkaido Electric Power, a technology transfer supporter from Hokkaido Railway, and a manager for corporate governance of TLO from Hokkaido Government, except other four by TLO self-hiring for operations.

### (3) Services

As main services it has the technology transfer (licensing), the spin-off support (incubation), the consulting, and the marketing and match making.

As the consulting track records, it includes so far the technology coaching 1, receiving contract researches 5 (local public entities and food / hygiene companies), introduction of researchers and research seeds 51, and technology references / consulting 27. As the outputs of the marketing and match making, it has each sponsorship of government-university-industry cooperative technology transfer forums, university-industry interchange conferences (Muroran Institute of Technology & Hokkaido Institute of Technology), and TLO marketing fairs, and has exhibited it at small and medium-sized business fairs in Sapporo, and Japan-Singapore international patent licensing fair in Singapore.

#### 1) Technology Transfer Service

Domestic patent filing number is total 109 at a point of time in February 27, 2004, and it breaks down into life science 47, nanotech & materials 26, information & communication 11, environmental protection 9, production technology 8, energy 4, social infrastructure 3, and other 1. Recently the largest number 26 patents are filed in 2003.

The domestic filing is a speed of 21 patents yearly average. In addition, among related universities, Hokkaido University occupies 71% of the domestic filing patents. As the foreign patent filing number, it is 31 totals, and 8 of them are filed in 2003. As concrete outcomes, the right acquisitions include three issued patents and a new design for practical use in total. As the technology transfer number, it is 26 totals (10 within 2003), and a breakdown includes enforcement consent contract number 20(14 to regional companies) and right transfer 6(3 to regional companies). In addition, the member registration number became totaled 122.

TABLE 3: TREND OF HOKKAIDO TLO PATENT FILING NUMBER

FY	Domestic Patent Filing Number	International Patent Filing Number
1999	3	0
2000	23	1
2001	34	10
2002	23	12
2003	26	8
the total	109	31

TABLE 4: PATENT FILING DISTRIBUTION BY RESEARCH INSTITUTE

Research Institute	Domestic Patent Filing Number	International Patent Filing Number
Hokkaido University	78	21
Sapporo Medical University	13	6
Kitami Institute of Technology	8	1
Muroran Institute of Technology	3	1
Rakuno Gakuen University	3	1
Hokkaido Tokai University	1	0
Hokkaido Institute of Technology	1	0
Tomakomai National College of Technology	1	1
Hakodate National College of Technology	1	0

## 2) Spin-off Support Service

Hokkaido TLO has strengthened support to academic spin-offs for industrialization of research results since 2002, in addition to conventional licensing as technology transfer. By utilizing “Academic spin-off support service” by Ministry of Economy, Trade and Industry(METI), it supports them with the management consulting by such expert dispatching as the management consultants, certified public accountants, and licensed tax accountants, with finding competitive funds, with training of intellectual property right management, and with dispatching skilled executives into start-up boards (as directors or advisers).

### i) Expert dispatch support

#### a) Academic start-up management supporting project (for business plan)

-FY 2001(Feb-Mar, 2002) result:

Projects 9(Hokkaido University 5, Kitami Institute of Technology 3, Chitose Institute of Science and Technology 1)

Experts 4(a licensed tax accountant, a certified public accountant, a management consultant, and a business firm biotech expert)

Dispatch frequency 28.

- FY 2002 result:

Projects 15

Experts 8(licensed tax accountant 2, certified public accountant 2, and management consultant, patent attorney, business firm biotech expert, and liaison expert each one)

Dispatch frequency 79.

#### b) Patent attorney dispatch supporting project (for patent filing)

- FY 2001 result:

Dispatch frequency 32(Hokkaido University 15, Kitami Institute of Technology 8, Sapporo Medical University 4, Muroran Institute of Technology 2, and the others 3 )

- FY 2002 result:

Dispatch frequency 41(Hokkaido University 25, Kitami Institute of Technology 7, Sapporo Medical University 5, Rakuno Gakuen University 1, Muroran Institute of Technology 1, and the others 2)

### ii) Outside fund raising

#### a) METI Academic Start-up Creation & Scale-up R&D Projects (matching fund)

- FY 2002 adoption 1 (3 years) “Tailor-made cell treatment”(Hokkaido University, Sapporo Medical University, another regional universities 6, and region outside company 1)

- FY 2002 revised adoption 2 (1 year) one of them is “New immunity suppression medicine”(Sapporo Medical University, and region outside company 1)

- FY 2003 adoption 1 (1 year)

#### b) METI Regional Renaissance Consortium R&D Project

- FY 2002 adoption 1 (2 years)

#### c) Minister of Education, Culture, Sports, Science and Technology (MECSST) Academic Start-up Creation Support Project

- FY 2002 adoption 1 (3 years) “Eating suppression peptide” (Hokkaido University)
- d) MECSST Protein 3000 Project
- FY 2002 adoption 2 (5 years)
- “Patent filing support of transcription / translation-related research results” (Hokkaido University, Dept. of Mathematics) and “Patent filing support of signal transmission in a cell research results” (Hokkaido University, Graduate School of Pharmaceutical Sciences)
- iii) Cases of academic start-up founding support
- a) Eye Ambitious Co.  
Establishment: March, 2004  
Business:
- Development of a test / diagnosis kit of eye diseases
  - Development of some specific health foods / treatment medicines, using some functional materials of the plant / marine products of north origin
- Management Team:
- President: Visiting professor of Yokohama City University School of Medicine  
-2 Directors: Professor of Hokkaido University Graduate School of Medicine, and Staff of Hokkaido University Institute for Genetic Medicine  
-Auditor: Certified Public Accountant
- b) Oncolex Co.  
Establishment: August, 2003  
Business:
- Establishment of an advanced treatment method for intractable cancer / endarteritis obliterans
- Management Team:
- President: Venture capitalist at Global Investment
  - Directors2: Professor of Hokkaido University, Institute for Genetic Medicine, and Professor of Hokkaido University Graduate School of Medicine
- c) Bioimmulance Co.  
Establishment: April 2003  
Business:
- Establishment of advanced immunity treatments for intractable diseases as cancer, allergy, & autoimmune disease
- Management Team:
- President: Former assistant at Hokkaido University, Institute for Genetic Medicine  
Directors 4: President of Amino Up Chemical, Professor of Hokkaido University, Institute for Genetic Medicine, Professor of Hokkaido University Graduate School of Medicine, and Executive Officer of Hokkaido TLO
- d) Plant Selective Laboratory Co. Ltd.  
Establishment: March 2003  
Business:
- Development of the onion including the ingredients assumed as effective against habit diseases
  - Development of high functional vegetables harvested in Hokkaido
- President: Graduate student of Hokkaido University, Graduate School of Agriculture
- e) A-HITBio Co.Ltd.  
Establishment: February 2003  
Business:
- Development / sale of the health food having a calcium absorption promotion effect
- Management Team:
- President: Graduate from Hokkaido University, Graduate School of Agriculture  
Technological Advisors 3:  
President of Hokkaido TLO (Emeritus Professor of Hokkaido University), Professors of Hokkaido University, Graduate School of Agriculture

Thus Hokkaido TLO assists the academic spin-offs with the necessary information, consulting expert dispatching, outside fund matching, and board executive dispatching, and practically promotes their start-ups.

#### **Hokkaido Center of NIAIST**

##### (1) Goal of start-up support system

As a background of its enriching of the support system, in recent years, there can be observed on the activation of regional academic spin-offs, the confirmation at “Hokkaido biotech 21st century social gathering” on the necessity of government-university-industry cooperation for formation of Hokkaido biotech industrial cluster, and the special policy emphasis on Hokkaido Center as biotech research center in nationwide NIAIST. As an aim, this center is to contribute to the cluster formation of Hokkaido biotech industry and new industry creation by self R&D of the biotech field, and by the support for both industrialization by entrepreneurs on the base of technology seeds of NIAIST and by entrepreneurs of academic spin-offs utilizing technology potential of NIAIST.

Two support targets consist of the biotech start-ups (less than 5 years since start) as an outcome creation type, aiming at the offer of the product / service with advanced and original technology / know-how, and of the internal or external biotech researchers / engineers as an outcome practical use type, aiming at exploitation of technological potential of NIAIST. The support contents can be classified into an offer of research environment, a support of R&D, a business support, and various seminars. Above all, as a highlight, at first, “Hokkaido biotech start-up incubation center” was established as a first regional incubator for R&D type biotech start-ups in February, 2002. Additionally a start-up support team, start-up advisers, and an incubator service board were arranged. Thirdly, an open space laboratory was completed, as a necessary environment for biotech business by comprising the R&D and experimental animal facilities, and the GMP clean rooms in March, 2004.

##### (2) Characteristic of support system

NIAIST's support system for start-up consists of the improving and innovative systems.

###### 1) Improving System

Following four measures are highlighted as 2002 introduction by NIAIST.

###### a) Start-up support appointment system:

To employ outside talented persons with technology seeds and founding willingness within a time limit as the regular staff and to offer them the R&D opportunities for start-ups (at maximum 3 years and R&D budget of JYN 40 million).

###### b) Licensing type cooperative research system:

To do R&D support by a matching fund system to inside and outside talented persons aiming at founding.

###### c) Set-up of start-up support factory:

To prepare and lend the facilities necessary to R&D and prototyping for commercialization by the start-ups and their supporting engineers, based on “Small and medium-sized business measures costs” by NIAIST.

###### d) Foundation of start-up adviser group:

To do general support such as a law, finance, patents, and management to be necessary for start-up business, by foundation of advisor group of lawyers, certified public accountants, and patent attorneys.

###### 2) Innovative System: “Start-up development research center”

By a project adoption of “Development of strategic research center” by technology promotion adjustment grant (5 years) of MECSSST, NIAIST established “Start-up development research center” on October 15, 2002.

A purpose of the plan is the establishment of the Japanese way of start-up creation system on the basis of technology seeds of university-public research institutes. Three main points of the plan are the construction of business models with the competitive edge based on technological seeds and intellectual property of research institutions, the R&D necessary in start-up (establishment of a technology development team of R&D for start-up, and enforcement of full-scale R&D from basic research to industrialization), and the support for start-up founders (appointment of a founder as the staff by NIAIST, and support by the adviser group who cover a full range of expertise on technological start-up).

The center's mission is to complete a practical system for accelerating the creation of high-tech start-ups including biotech and generalize a Japanese model of start-up creation. In addition, it also aims at changing the mind sets of researchers into studying for herself while being conscious of the social return of findings (market-mechanism orientation), and at revolutionizing NIAIST into a platform of hi-tech start-up creation. As an

organized highlight of the center, at first, within the start-up development strategy taskforce, technology development team constructs the business model based on intellectual property owned by university-public research institution and develops practically creation techniques of high-tech start-ups by under top-down management of start-up advisers as specially invited experts on business plan (start-up equal to technology development). Types of target start-ups are classified into the outcome exploitation type, business creation type, and human resources utilization type. Next, the start-up support office offers one stop service for the bottom-up founding proposals from researchers, by cooperating with associated sections. As the kinds of service, there are the start-up support appointment system, licensing type cooperative research system (an offer of R&D money to business planners based on NIAIST technologies and to research units cooperating with start-ups) and approval as NIAIST start-ups (transfer of intellectual property, grant of exclusive enforcement rights, exemption of enforcement charges, moving into incubators, and reduction of the facility fees). In the third, the start-up strategy research office builds a general model of high-tech start-up creation, by investigating the start-up creation process that the start-up development strategy taskforce studies. In addition, it plans and operates various training and seminars for human development and consciousness change. And to the fourth, the development strategy planning office builds the action programs of the center, and coordinates between inside and outside conditions of NIAIST.

As concrete functions of a start-up development strategy research center in Hokkaido Center, there can be at first a research on the start-up creation system on the basis of technology seeds of public and basic research institutes, next an experimental trial of start-ups through the restoration of technology seeds from research results, grasp of social needs, building of business model, and additional necessary research for founding, in the third an indirect support as the introduction of venture capital and of professionals in such as patents, law, accounting and management, in the fourth a training of business creators and entrepreneurial mind as human resource management, and in the fifth an information offer as the research result spread from a start-up development strategy research center, and the introduction of start-ups and products.

### (3) Track Records

As to start-up incubation track records by Hokkaido center, it established a start-up support team and an incubator service board as the staff, with the establishment of a biotech start-up incubation center. In addition, it arranged a business creator of a start-up development research center while cooperating with that plan of head quarter. In the second, as facilities, the start-up incubating space / open space laboratories were constructed and the biotech related common use research instruments were provided by a start-up support factory project. In the third, by targeting for specific start-ups and entrepreneurs, it applied them the start-up support appointment system and NIAIST start-up approvals.

TABLE 5: ACTIVITY RESULTS

Time	Event
April 2002	“Biotech start-up incubator” was established and the start-up support team and the start-up incubation board were formed in Hokkaido Center of NIAIST.
June 2002	Incubation space for start-ups was prepared.
August 2002	2 companies of Medical Image Lab Co. and Gene Techno Science Co. were approved of NIAIST start-ups (Outcome Creation Types).
August 2002	The person of present Bioimmulance CEO was hired as a start-up part-time service staff by “The start-up support appointment system”.
September 2002	Biotech related common use research instruments were prepared by “The start-up support factory project”.
January 2003	The construction of government-university-industry cooperative open space laboratory was started.
April 2003	Bioimmulance Co. was approved as “NIAIST start-up (Outcome Creation Type)”.
June 2003	The business creator of “Start-up development research center” was posted in Hokkaido Center of NIAIST.
March 2004	The open space lab was completed.

As the future deployment of biotech start-up incubation center, there can be at first the increase of start-up founding based on technological seeds of NIAIST, secondary the creation of new products and start-ups by cooperation on technology and know-how between university and NIAIST, thirdly the support to academic spin-offs by the offer of technology and research environment of NIAIST, and fourthly the reinforcement of a incubational function with the regional economic policy. Concretely three start-ups were already founded in the start-up

incubator, and in the future, new industrialization is expected by utilizing the open space laboratory.

## **Pioneering Cases of Academic Biotech Spin-Offs**

Here we will examine 2 cases of biotech start-ups of path finding not only in Hokkaido but also in the nation, both spun-off from Hokkaido University and relating with Otaru University of Commerce, and one of them is also involving with NIAIST.

### **Genetic Lab Co.**

This company was established on September 1, 2000. It has the capital JYN 38.75 million and the employee number 48 as of March, 2004. In addition to the main office and a research facility, it has a pathology diagnosis and special test laboratory. The business contents consist of the pathology diagnosis, the clinical, clinical trial, and genetic tests, the receiving contracted researches, and the out-sourcing service of drug discovery. As for the company goal, it aims at becoming a global biotech start-up founded in Hokkaido, by progressing with Hokkaido University.

#### **(1) Platform Technology**

The DNA array analysis technology of platform technology is consisted of the contracted expression analysis by using Affymetrix's gene chip, manufacturing / analysis service of custom DNA array, and data analysis service for selecting validated genes and for final forecasting and evaluation of them. At drug discovery as a main project, at first, it is aiming at development of drug discovery technology as a merger between DNA array technology and information technology, and is building an information database on gene expression. For example, it has achieved a convalescence correct answer rate of 97% by the analysis of gene expression / convalescence data of B-cell lymphoma, by the comprehensive expression analysis and database building on clinical specimen 1000 examples of cancer organizations through a cooperative research with Hokkaido University Graduate School of Medicine. Next, at a compound / drug evaluation by DNA array, it is developing new drug discovery method "reverse screening system" with a research grant from METI's "2002-2003 New industry creation technology development assistance project", while predicting the operating mechanism, efficacy, toxicity of a drug candidate compound by the changing patterns of gene expression after having administered it to culture organizations and animals.

#### **(2) Core Business**

A pathology analysis center is positioned in the regular service to help financially the technology development and company's own original projects, and is located in the neighborhood of an attached hospital of Hokkaido University School of Medicine. The center's 1<sup>st</sup> lab is in charge of clinical test of pathology and 2<sup>nd</sup> lab is in charge of special test for clinical trial test and R&D.

Furthermore, at the clinical test of pathology, critical factors include the introduction of the latest machinery, precision management of a test-diagnosis, and quality improvement of contracted test service by medical specialists and cell inspectors authorized from each academic association of pathology and clinical cytology. Otherwise, at special test, it is emphasized on the supplement to the conventional microscope observation with technological introduction of the DNA array and image analysis developed originally.

#### **(3) Management System**

As top management, chairman is a professor of Hokkaido University Graduate School of Medicine, CEO is a researcher having track records of a DNA array research at domestic and foreign companies, and COO&CFO is an expert of finance, legal affairs, and management with track records at domestic and foreign companies, also having a qualification of U.S.A. certified public accountant. Among 4 directors, three people are medical experts, each a visiting professor at Hokkaido University, Advanced Science and Technology Cooperative Research Center, a chief of a private pathology research institute and a professor of Hokkaido University, Institute for Genetic Medicine. One remainder is President of a local venture capital. A counselor is president of a trading company of biotech-related materials, and an auditor is head of an accounts office.

Among adviser board members, the pathology adviser is an emeritus professor of Juntendo University, and 3 technology advisers consist of a professor of Hokkaido University, Institute for Genetic Medicine, a professor of Hokkaido University Graduate School of Pharmacy, and a professor of Okazaki Cooperative Research Organization, Natl. Inst. for Basic Biology. The other advisor is an associate professor of Otaru University of Commerce, Business

Creation Center (but, as for the management system, large reorganization occurred to directors and advisers, aiming at IPO after spring, 2004).

Its platform technology is DNA array analysis and was supported by national grant. Its pathology analysis service financially facilitates its R&D on platform technology.

#### **Gene Techno Science Co.**

Gene Techno Science was spun-off from Hokkaido University, Institute for Genetic Medicine and was founded on March 1, 2001. It has capital JYN 35 million, is located in and supported by the biotech start-up incubator facility at Hokkaido Center of NIAIST. Then it can use the open space laboratory since April, 2004 and has a cooperative researcher as a research follow of NIAIST. Its main business is the manufacturing of disease-related gene expression profiling for identifying drug-target candidates.

##### **(1) Development and Business Strategies**

As a R&D plan for next about 5 years, it is planning to concentrate on a search of a disease-affiliated gene to have an influence on the condition of a patient / progress of a disease, instead of a search of the competition intensive cause genes. Concretely it aims at the identification of disease-related genes through a genetic search to change greatly of a quantity of appearance every stage, by sampling them every disease progress stages. Afterwards, it tries to manufacture some antibodies obstructing a function of the proteins which the gene makes, some transgenic animals, and some recombinant proteins, and to develop some viral vectors absorbing the genes.

##### **(2) NIAIST Tenant and Contracted Projects**

By “NIAIST start-up approval (Outcome Creation Type)” in August, 2002, and a cooperative research with a NIAIST fellow and special researcher, on the base of cloning related to the natural killer cells owned by NIAIST, the company is developing some new gene-therapy vectors targeting on cancers and autoimmune diseases. In the second, it analyzes the gene expression profile of new drug candidate before and after of dosage, by targeting on some urinary organs and retina disease models. The third R&D target is the aging medical care, then a cooperative project; “Manufacturing of a failure of muscular coordination model due to cerebellum function imperfection” is continued with Hokkaido University, Institute for Genetic Medicine by a 2002 grant of creative technology R&D by METI. In addition, it has also another project; “A new gene search on a disease model for drug discovery development” with a cooperative R&D grant by Hokkaido Small and medium-sized business General Support Center. Otherwise, as own company’s original business, it promotes such projects as a gene expression profile analysis in a habit disease model, a manufacturing of transgenic animals, and a development of a kit for diagnoses.

##### **(3) Management System**

Among four directors except representative directors, two people are professors of Hokkaido University, Institute for Genetic Medicine. And auditor is a professor of Otaru University of Commerce. In addition, a local venture capitalist took up his post as a director with an investment in May, 2004. Furthermore, led by this company based on genetic technology, “the bio-informatics Sapporo consortium” is formed and trying to respond to various technologies and to save R&D cost, by comprising of another companies in the antibody manufacturing, DNA chip development, manufacturing of some small and medium-size disease animal models, and expert service on reactions of drugs working.

In this way and, according to 2 pioneering cases of academic biotech start-ups, the promotion of commercialization is tried on the basis of continual basic research at Hokkaido University, with the supports by Hokkaido TLO, Otaru University of Commerce, NIAIST, Hokkaido Government, or local venture capital. Above all, in the first example, it builds a robust business model supporting a long payback period of R&D, by a routine business as pathology analysis service through the cooperation with an attached hospital of Hokkaido University School of Medicine. At the second case, similarly on the basis of basic research of Hokkaido University, it settled in a NIAIST incubator, enjoys its resources, facilities, and service, and makes easy to overcome “Death valley” as a long initial deficit period. Furthermore, both spin-offs receive faculty member of Otaru University of Commerce and a local venture capitalist as their management staff. It is said relatively easy for them to hire the excellent researchers at even local area. But with a long distance from large-scale pharmaceuticals companies or financial centers, Hokkaido seems to have a relative disadvantage for drawing a strategy of business model, and for information exchange with financial market, by comparing with Tokyo or Osaka.

## Conclusion

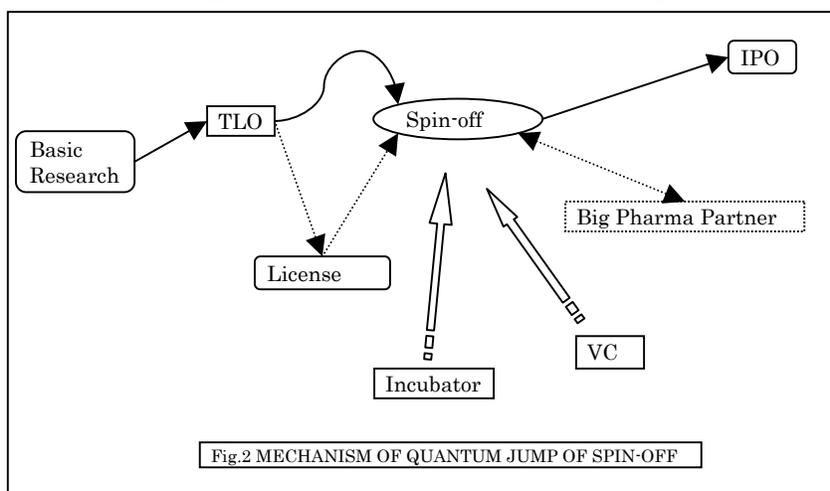
As number of academic spin-offs, amount money of research and development, and employment mainly for research staff are stably increasing, Hokkaido biotech cluster is expected to become the main biotech cluster next to Tokyo and Osaka areas in the country.

In addition, in Hokkaido TLO in charge of technology transfer as an aggregate of many universities of Hokkaido, it recently gives the expert dispatch and outside fund supply to the potential entrepreneurs toward the increase of academic spin-offs in addition to licensing. Because, for academic start-up incubation, the information and contacts of the industry, financial circles, and government are also necessary in addition to the academic world, TLO receives for some of executives and officers the skilled and talented persons from the local government, public utilities companies, financial institutions, and industry, and constantly exchanges the information of technological seeds, needs, finance, and human resources.

NIAIST (National Institute of Advanced Industrial Science and Technology) as a public research institute has also begun to strategically study a process to develop start-up creation as a kind of technology development like a nationwide project; "Start-up development research center". Specifically it provides the potential entrepreneurs with a fixed period of an employment guarantee (an appointment), matching funds, cooperative R&D opportunities, facility use opportunity as the start-up incubator or open space laboratory, and adviser service of business support experts. In this way, NIAIST has really started an experiment of start-up creation while cooperating with local universities or TLO.

Pioneering biomedical spin-offs from universities need a special type of business model, start-up incubator, and management board to overcome a deep death-valley. Then for example, a regular income from clinical test service, human and financial resources from Hokkaido TLO, a moving into a NIAIST start-up incubator, and a director position by a local venture capitalist can contribute to the income stability for R&D, a cost saving, an investment fund financing, and an expansion of acquaintances.

An academic start-up is also included in an area of MOT (Management of Technology) in addition to a licensing. An academic start-up can be considered as a real option which includes the information phases of technological seeds, needs, and finance, when we examine it from the viewpoint of MOT. In other words, a partnership with large-scale pharmaceuticals firms becomes still more important from a meaning of flexibility keeping, if it survives an initial tough time and aims at IPO in future, while maintaining a practical use relation of basic research results at a university. With that purpose, the building of business model possible to attract needs of large-scale pharmaceuticals firms as partners, and the information analysis / risk management of finance will become necessary in addition to having the skilled eyes on basic research findings.



If, even in MOT, we examine a academic spin-off as business of science to aim at industrialization of basic

research findings, it is desirable to maintain such structure makes possible to understand both the advanced basic research trend and the practical problems at a clinical stage, as an advisor for it without an active university researcher retiring from a university, in order to keep its competitive position. At the industrialization of a basic research idea as the business of science, it is possible to divide an innovation process of an idea into an improvement idea near to the applied research possible to comparatively easily make a business, and into a creative basic research idea to need a considerable breakthrough until a practical use. In the case of an improvement idea, it is possible to promote comparatively straight through a development process, but in the case of a creative basic research idea, it becomes necessary to build a development process originally, in addition to the expert group with the skilled eyes. In other words if a development process of an improvement idea is “flow shop”, a development process of a creative idea is “project”, and it needs in future to form structure of “job shop” or matrix organization by letting an expert group gather and dissolve in adaptation to circumstances. In this way, by including many types of development process for industrialization of an idea, with coverage through job shop from project to flow shop, it becomes important to manage each optimal portfolio of options with a risk and return.

Above all, by development of a creative idea to make use of basic research findings, a correspondence of discontinuity leap on the basis of Poisson process will be needed, instead of development of a steady state on the basis of gBm (geometric Brownian motion). At the time, by starting from an evaluation by a skilled expert on the idea, it is also necessary to have an intermediary between basic research and development and a temporary project by various expert groups. A formula of the innovation leading to a mutation and evolution becomes required for the finding, evaluation, and industrialization of an accidental discovery. At first a device to make their success probability improve is pursued if leapfrog ideas of the number of 20% cover 80% of an income.

For increase and continuity of a discontinuity jump of creative innovation from the viewpoint of ROA (Real Option Analysis), it is suitable to have both a skilled eye equivalent to gamma of Greeks as a risk-hedge index and a formula to evaluate a jump idea on the basis of Poisson distribution instead of uncertainty modeling of on the basis of gBm. In addition, if a real-option design on a R&D management process raise expansion-NPV, it will become possible to send a more go-signals on the higher risk projects that were hesitated conventionally. Furthermore, ROA can be a guideline to show the most suitable alternatives from the viewpoint of end payoff, depending on deployment of project, even in situation of information asymmetry about time.

In the future, ROA will need to build the more suitable competitive strategy, by integrating with game theory to consider a rival behavior. And, in addition to a quantitative technique, the know-how and skills of a project leader and a support by an expert group will be also necessary.

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# **The Influence of Global Forces and Trends on International Market Selection: A Study of New Zealand Exporters**

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## **Abstract**

**This study investigates relationships between exporter awareness and understanding of the forces and trends of a wider global market environment and international market selection (IMS). Using a sample of 152 New Zealand exporters, our findings indicate that exporters make IMS decisions conscious of the influences of the dynamic international marketplace they are obliged to compete in. It was surmised exporters chose new markets less conscious of the wider environment than they needed to be. The results of our study also suggest that product-specific foreign market information is more important than broad and macro information when making IMS decisions where they consider the business environment is more uncertain or risky than they are used to. There are implications about our understanding of contemporary exporting practise, the provision of information to experienced and ‘new to export’ exporters and management education providers.**

## **Introduction**

Changes in the global marketplace have influenced international marketing management practice, perspectives and approaches to global marketing decision-making, as well as the managerial perceptions of marketing (Schlegelmilch and Sinkovics, 1998; Andersen and Strandskov 1998; Douglas and Craig, 1999; Etemad and Wright, 1999; Lazer and Shaw, 1999; Walton, 2002). Walton and Ashill (2001) and Walton (2002) contend IMS literature (especially IMS model building) that precedes the most recent studies, were developed in isolation of the prevailing globalisation forces at the time they were developed. Axinn and Matthyssens (2001) assert that conventional theories and models that once attempted to explain export behaviour no longer do because of the vast changes occurring in the global marketplace. Walton (2002) suggests that theory development and commercial practice need to be generated in response, and be responsive to, the prevailing external environment. We contend if awareness and an understanding of the influence and impact of this wider environment upon business exists amongst exporters, this would influence IMS criteria selection. This is the subject of this study.

International Marketing (IM) and International Business (IB) literature falls short of empirical studies that address the relationships between global market change, and understandings of this by exporters, and their IMS decision-making. Although approaches to selecting new overseas country markets have contributed various managerial models and frameworks of decision-making to the IM and IB literature, we suggest that these conventional approaches that have developed over time (e.g., Cavusgil 1985; Cavusgil and Li 2000; Solloway 1992; Root 1994; Hoffman and Novak 1996; Brewer 2000; Koch 2001; Fletcher and Brown, 2002) have been developed in isolation of the rapidly changing global market environment that prevailed at the time they were conceived (Walton and Ashill 2001). The very nature of change and identifiable global phenomena requires marketing academics and practitioners to rethink many of our accepted assumptions and paradigms and to develop contemporary approaches to IM strategy development (Lazer and Shaw 1999; Walton 2002). For example, the relevance of psychic distance phenomena, country of origin and iterative approaches to IMS, entry and development to help explain export behaviour, must now be re-evaluated.

Our paper is organized into five sections. We begin by first reviewing literature pertaining to changes in the global marketing environment, IMS models and frameworks and developing research constructs. The second section discusses our research model and hypotheses. We follow this with a description of the cross-sectional survey that was used to collect data and the results from our study. In the final section, we attempt to explain the results and

discuss the theoretical and managerial implications of the research findings for international marketing management practice. We present a future research agenda.

## Literature and Construct Development

Rosenzweig and Shaner (2000) in Fletcher and Brown (2002, p. 240) state “A number of major changes in recent years - ranging from deregulation of industry, to newly emerging markets, to the revolution in information technology, have changed the pattern of internationalization.” The competitive nature of today’s business environment requires that foreign markets be systematically investigated (Craig and Douglas 2000; Brewer 2001). Lazer and Shaw (1999) and Walton (2002) summarise a number of external environmental factors characterised as powerful drivers of change in the international marketplace. They suggest these factors are forcing companies to reshape and question their current thinking, commercial practice and approaches to IM strategy development. These environmental factors or ‘forces’ include increasing global competition (Lazer and Shaw 1999, Douglas and Craig 1999, Rundh, 2001); trade liberalisation (Lazer and Shaw 1999, DeRosa 2000); structural changes in the way markets operate and are regulated (Lazer and Shaw 1999, Lowengart and Mizrahi 2000); growth in consumer convergence making country markets as the unit of analysis less relevant (Levitt 1983, Czinkota and Ursic 1984, Bell 1995, de Chernatony et al 1995, Schlegelmilch and Sinkovics 1998, Ohmae 2000); the diffusion and rapid adoption of information technology (IT) and e-commerce technologies by both exporters and those foreign companies whom import goods and services (Vlahos 1995, Molloy et al 1995, Hamill 1997, Hamill and Gregory 1997, Schlegelmilch and Sinkovics 1998, Lazer and Shaw 1999, Douglas and Craig 1999, Cummings et al 1999, Heintze et al 2000); increasing regional integration (Solberg 1997, Rugman 1998; Lazer and Shaw 1999; Fletcher and Brown 2002) e.g. Closer Economic Relations (between Australia and New Zealand, ASEAN, North American Free Trade Agreement, Expanded European Union (10 new members 7/04’); the occurrence of unexpected events or ‘wildcards’ making environments more difficult to predict (Trade NZ 1996, Petersen 1997, Cornish 2003); and the state of global and local/regional economies that affect export firms directly (Weber 1996; Lazer and Shaw 1999). This research seeks to test the global forces of Walton (2002) by applying them to the IMS decision only. Collectively these drivers of change in the global marketplace become the first construct of this study.

These changes have a number of potentially significant implications for an export firm’s approach to international business growth (Andersen and Strandskov 1998; Lazer and Shaw 1999; Axinn and Matthyssens (2001), Craig and Douglas 2001; Walton 2002) let alone the specific decision about IMS. Because of the impact of various forces and trends in the current global environment Craig and Douglas (2000) suggest the competitive nature of the business environment today requires foreign markets to be systematically investigated. IMS is a fundamental first step after the firm has validated the necessity to further diversify its international market (Walton, 2001). Andersen and Strandskov (1998) suggest IMS decisions are influenced by the global market environment in which firms operate and their understanding of this environment. Although some studies have examined the importance of IMS screening criteria (Woods and Goolsby 1987; Hart et al. 1994; Terpstra and Yu 1998; Brewer 2001; Wood and Robertson 2000; Mohamad et al. 2001), there has been no empirical examination of the relationship between the impact of the global market environment on export market selection decisions. Numerous approaches and frameworks to select a new overseas market are cited in the exporting literature (Cavusgil 1985, Solloway and Ashill 1995, Hoffman 1997, Andersen and Strandskov 1998, Brewer 2000, Koch 2001, Fletcher and Brown 2002). In order to enable a firm to arrive at a portfolio of attractive overseas markets (Fletcher and Brown 2002), the screening process in IMS evaluates each market against a selection of pre-determined and weighted criteria. These criterion are typically classified as either general (macro) IMS screening criteria such as culture, social, political, economic, demographic and geographical issues (Douglas and Craig 1983, Root 1994, Russow and Okoroafo 1996, Wood and Robertson 1999; Koch 2000, Rahman 2000, Walton 2002) or product-specific (micro) criteria such as those that are related to specific product demand/estimation (Root 1994, Brewer 2000, Wood and Robertson 2000, Mohamad et al 2001; Walton 2002). The relationship between IMS criteria selection (the second construct) and exporters’ awareness and understandings of the wider global environment is a key objective of this research.

## Research Model and Hypotheses

In an uncertain environment, firms may find themselves facing new, challenging, risky and confusing situations and their existing knowledge base is inadequate to cope with the changing marketplace (Daft et al 1988, Axinn and Matthyssens (2001). We might expect both large and SMEs with greater export experience to have a greater awareness of construct one. That is, awareness of and the impact of a range of global forces and trends and what impact this identifiable phenomena may have on their IMS process and export activities.

Following Andersen and Standskov (1998), Dow (2000), Walton and Ashill (2000), Douglas and Craig (1999) and Walton (2002), our conceptualisation suggests relationships exist between the forces that shape the wider global market environment and the selection and importance of particular IMS criteria. Given the uncertainty associated with change in the global market environment, we suggest that exporters will perceive all IMS (general and product-specific) criteria to be more important where the awareness, influence and impact of the global market environment is perceived to be high. Thus our first hypothesis becomes

H1: There will be a positive relationship between global market environmental impact on export market selection decisions and the importance of all IMS screening criteria in selecting a new overseas country market when the impact of the global market environment is perceived to be high.

As noted earlier (Douglas and Craig (1999), Lazer and Shaw 1999 and Walton (2002), we further suggest that changing global forces (increasing trade liberalisation, the growth of information technology/e-commerce, regional integration, consumer convergence, 'wildcards'...) have possibly overcome conventional notions of geographical barriers and psychological distance. The effect of current global environmental forces and trends may have reduced the relevance of general (macro) screening categories of socio-cultural, economic, political, demographic, and geographical criteria. Given the hypothesised effect of the global market environment on the importance of IMS criteria, we suggest that general (macro) IMS criteria have become less important in international market selection decisions relative to product specific (micro) criteria. Along with Mohamad et al (2002), this study seeks to replicate in part, Wood and Robertson's (1999) empirical study of American manufacturers to see if New Zealand exporters also value product specific criteria over broad macro criteria (the subject of numerous past studies). Thus:

H2: Product-specific (micro) IMS screening criteria will be more important than general (macro) IMS screening criteria in selecting a new overseas country market when the impact of the global market environment is perceived to be high.

The final hypothesis pertains to export manager behavioural differences in high experience and low experienced, and large and small exporting firms. We surmise larger and experienced export firms are more strategic in that company growth will come from further internationalising their business. This is reflected in the greater proportion of their revenue that comes from export activity compared to smaller and less commercially and export experienced firms. Resource allocate to export activity (market research, market investment etc) will be greater where the strategic decision is made about the importance of internationalisation to growth. We are mindful that a significant anomaly exists with this summation however. That is, the emergence of 'born global' companies whom not only are new and thus developing commercial experience but whom also need to internationalise sooner than conventional IM literature that has explained internationalisation processes in the past. Specifically, we expect that large exporting firms will place greater importance on all IMS screening criteria than SME exporting firms when making export market selection decisions. Similarly, more experienced exporting firms will place greater importance on IMS screening criteria than smaller exporting firms and use export information sources more frequently. Thus:

H3: The relationships in Hypotheses 1 and 2 will have higher correlations in high experienced and large export firms than low experienced and small export firms.

## Research Methodology

### Sample

To collect the data for the study, a total of 957 questionnaires were distributed to a random cross-sectional sample of New Zealand senior managers spanning ANZSIC industry wide categories. Representative industries included manufacturing, agriculture, forestry and fishing, energy, construction, retail and wholesale, transportation and financial and business services. These industries were chosen because their external environments were viewed as dynamic in terms of foreign competition and technological discontinuities, thus engendering greater environmental scanning.

Before the main data collection began, semi structured interviews were conducted with 8 senior exporting decision-makers and a questionnaire was developed and pre-tested with a sample of 40 exporting firms drawn from the seven industries. Once minor refinements were made to the questionnaire, it was sent and a self-addressed research envelope were mailed to the senior decision-making responsible for exporting in each firm - the manager who makes all or most of the international marketing management decisions for the firm.

Overall, a total of 152 useable questionnaires were returned yielding a net response rate of 17.9%. The majority of respondents were from manufacturing (50%) and agriculture and fishing (28%). The median number of staff (full-time equivalent) was 11. The average 'years of exporting' was 14.8 years and the average annual export sales revenue was NZ\$13 million. A random sub-sample of non-responding companies we contacted by telephone in order to identify possible differences between respondents and non-respondents. This analysis of non-responding firms indicated that non-response bias was not a problem. Early and late respondents were also compared on all variables of interest, using traditional t-tests, and following Armstrong and Overton's (1977) recommendations. As responses were recorded as they were received, a comparison between late and early respondents could be carried out. Chi-square values were then calculated to assess the differences between early and late respondents. The analysis revealed that no significant differences existed between early and late respondents in terms of the dependent and independent variables.

### Measurement

In designing the survey instrument, the relevant writings in the IB and IM literature (Douglas and Craig, 1983; Sengenberger et al. 1990; McAuley 1993; Sarkar and Cavusgil 1996; Lazer and Shaw 1999; Wood and Robertson 2000; Walton 2001; Koch 2001; Mohamad et al 2001; Fletcher et al, 2002; Walton 2002) were canvassed. Multiple item indicators were employed from this literature (see appendix). Three main areas of information were sought from respondents: (a) general company characteristics such as business activity, number of years exporting and number of full-time employees, (b) the perception of the impact of the global market environment on export market selection and entry decisions, and (c) the relative importance of a range of IMS screening criteria when making a decision to enter a new overseas country market.

For the Global Environment construct the impact of the global market environment on export market selection decisions was measured with nine items characterising contemporary forces/trends of globalisation. These forces were refined and modified from the work and insights of Schlegemilch and Sinkovics (1998), Douglas and Craig (1999), Lazer and Shaw (1999), Ohmae (1999), Axinn and Matthyssens (2001), and Walton (2002). Responses to the questionnaire items were elicited on a five-point semantic differential scale ranging from "1 = no impact (this global environmental factor does not require any reorientation or modification to existing export marketing plans and strategies)" to "5 = very significant impact (this global environmental factor requires major reorientation or modification to existing export market plans and strategies."

For the IMS construct and referring to the work of Douglas and Craig (1983), Koch (2001), Root (1994), Sarkar and Cavusgil (1996), Wood and Robertson (2000) and Walton (2002) 87 variables were used to measure seven different IMS dimensions - economic, market potential, market access/legal, infrastructure, culture, political and physical demographic. Responses to these items were also elicited on a five-point Likert scale ranging from "1 = not important" to "5 = extremely important". Additionally, a "don't know/no opinion" response category was provided for each information variable. Following Brewer (2001), Wood and Robertson (2000) and Mohamad et al (2001), these IMS criteria variables were subsequently used to derive measures for general (macro) and product-specific (micro) IMS criteria.

No cases were deleted from the sample because of problems with excessive missing data with three of the dependent variables (Cohen, 1988; Hair et al., 1998). Frequency analysis of all these items indicated no problems of floor or ceiling effects in the measurements.

The model constructs were subjected to factor analysis to ascertain the dimensionality of the scales. Items (Global Forces and Trends illustrated in Table I) that cross-loaded at or below the level of 0.30, or which did not load on any factor at above level of 0.30 were eliminated from the analysis (Cooper and Schindler, 1998; Hair et al 1998). Eigenvalues was used to identify the key measurement in each construct (Churchill 1999). Three items (Factor 2) were dropped from the nine-item measure measuring the impact of the global market environment on export market selection decisions as it didn't explain sufficient variance (see Factor 2 in Table I), leaving six items (Factor 1). A cronbach's alpha of .81 was reported for the 6-item measure.

Confirmatory factor analysis of the 87 items measuring IMS criteria revealed thirteen sub-dimensions. These 13 dimensions were subsequently collapsed into two overall groupings – general (macro) IMS criteria and product-specific (micro) IMS criteria. Both factors accounted for 62.1 % of the variance explained and produced acceptable reliability coefficients.

The study used the number of years exporting as an indicator of exporting experience. The classification of exporting firms into less experienced and more experienced firms was based on a median value of 10 years. Exporters with more than 10 years of exporting experience were classified as experienced. Seventy-six (50% of exporting firms) firms fell into this category, the remaining 76 fell into the less experienced category.

The classification of exporting firms into small and large firms was based on a value of 20 full-time employees. According to the definition provided by the New Zealand Ministry of Economic Development, a small and medium size enterprise (SME) is defined as an enterprise employing 19 or fewer full time equivalent employees (FTEs) (Ministry of Economic Development 2004). Exporting firms with 20 employees or more were thus classified as large firms. Fifty-nine (39.1%) of exporting firms fell into this category, whereas the other 92 (60.9%) exporting firms fell into the small and medium size exporting firm category.

TABLE I: CONVERGENT AND DISCRIMINATE VALIDITY OF THE MODEL CONSTRUCTS

VARIABLE	Factor Loading		Mean	SD	Rank
Impact of the Global Marketing Environment	1	2			
Multi/bi-lateral trade negotiations	.864		2.55	1.23	5
Trade liberalization (opening up of country markets)	.723		3.33	1.24	1
Regional integration	.714		2.61	1.21	4
Structural changes in the ways markets are regulated	.652		3.20	1.15	2
Consumer convergence	.603		2.70	1.16	3
Diffusion/adoption of Information Technology and E-commerce Technologies	.598		2.45	1.03	6
Economic/business cycles		.865	3.46	1.01	3
Unexpected 'wildcards'		.686	3.89	1.07	1
Global competition		.655	3.83	1.10	2
Eigenvalue	3.752	1.186			
% variance explained	41.69	13.174			
Alpha	.81	.63			
<b>General (Macro) IMS Criteria</b>					
Political		0.834			
Demographic		0.809			
Cultural		0.770			
Cost and Efficiency of Communication		0.756			
Macro Financial Health Data		0.752			
Cultural Unity		0.737			
Cost and Efficiency of Distribution/Logistics		0.678			
Macro Propensity to Spend		0.674			
Geographic		0.551			
Eigenvalue		4.84			
% variance explained		53.80			
Alpha		.87			
<b>Product-Specific IMS Criteria</b>					
Business Partnerships		0.818			
Market Potential		0.810			
Tariff and Non-Tariff		0.797			
Product specific Legal		0.725			
Eigenvalue		2.60			
% variance explained		65.09			
Alpha		.76			

## Results and Discussion

Before we summarise and discuss the results pertaining to the hypotheses, we want to discuss the analysis of the 9 global environmental forces and trends that form the first construct of this study. Table I combines both the descriptive and factor analysis of this construct. Hypothesis I predicted there would be a positive relationship between global market environmental impact on export market selection decisions and the importance of all IMS screening criteria. Table II reports this relationship where we can see the relationship is positive and thus the hypothesis is supported. The highest correlation ( $r = 0.52$ ) is between the impact of the global market environment and tariff/non-tariff information, a factor in the micro or product specific category rather than a factor in the macro or broadly based IMS category. This is an expected result. It suggests this sample of exporters place salience on

practical costs of product entry into a new market. The amount of any tariff imposed or the costs of compliance (non tariff barriers) may be a factor in exporter price competitiveness in a new market. Exporters clearly need to know their price competitiveness before committing to enter, supply and compete in any new market.

TABLE II: CORRELATIONS BETWEEN GLOBAL ENVIRONMENTAL IMPACT AND IMPORTANCE OF IMS INFORMATION

IMS Screening Criteria	Global market environment impact (Correlation coefficient)
Legal Tariff/non-tariff	0.52**
Politics	0.38**
Demographic	0.37**
Market Potential-specific product/service demand and competitor activities	0.35**
Culture differences	0.35**
Generic Macro Financial Health of a foreign Country	0.30**
Infrastructure Distribution logistics	0.26**
Generic Macro Propensity to Spend	0.25**
Infrastructure – Business Partner	0.23**
Culture unity	0.21*
Other legal	0.20*
Geographic	0.19*
Infrastructure Communication	0.17*
<b>All General (macro)</b>	<b>0.35**</b>
<b>All Product-specific (micro)</b>	<b>0.43**#</b>

\* significant at the 0.05 level \*\* significant at the 0.01 level

# Product-specific information is statistically greater than general (macro) information (p<0.05)

Hypotheses 2 predicted that product-specific (micro) IMS screening criteria would be more highly valued by exporting firms than general (macro) IMS criteria when the impact of the global market environment requires a major reorientation or modification to existing export market plans and strategies. Table II shows that product-specific foreign market information has a higher correlation than general foreign market information. The difference between all general (0.35) and all micro criteria (0.43) is statistically significant at the 0.01 level. This finding indicates that product-specific foreign market information is valued more highly by both low and high experienced exporting firms (Woods and Goolsby 1987; Hart et al. 1994; Terpstra and Yu 1998; Brewer 2001; Wood and Robertson 2000; Mohamad et al. 2001). And the importance of product-specific criteria is statistically greater for high experienced firms compared to low experienced firms. There is no literature that relates IMS criteria with export experience, thus this is a new finding. This is possibly also a function of increasing managerial experience. If broader/macro categories of criteria like socio/cultural, political, economic criteria could be proven to determine specific product demand then these criteria would still explain exporter IMS criteria choice. The results don't suggest this to be valid. The results are suggesting exporters want market information that allows them to compare markets against one another under specific product criteria. Our results suggest exporters discern that a buoyant economy as measured by GDP growth, literacy rates, cost of capital, established infrastructure (or not) does not necessarily correlate to specific product demand. So they would prefer to measure markets against product criteria specific to their own product.

A firm's ability to obtain and use information is likely to depend largely on resource availability (Samiee and Walters 1990), and thus on firm size. Denis and Depeltau (1985), Walters and Samiee (1990), Hart et al (1994) and Yeoh (2000) suggest that the positive relationship between firm size and information search activity can be argued from an economies of scale perspective in that large firms have slack resources to devote to information gathering activities. In contrast, Piercy (1981) and Yeoh (2000) suggest small firms have limited schema and seek less information than their large counterparts.

Hypothesis 3 predicted that the relationships in hypotheses 1 and 2 would have higher correlations for experienced (10 years or more exporting) and large exporting firms (20 or more full-time employees) than in less experienced and SME exporting firms.

Table III reports the correlations between the recognition of high\global market impact, and firm size & export experience by IMS screening criteria. A number of patterns emerge from Table III. A prominent finding from Table III is that experienced large and SME exporting firms and, inexperienced SMEs show consistently stronger correlations than do low experienced and large exporting firms. Highly export experienced New Zealand firms placed greater importance on a wider range of IMS criteria compared with local market or 'new to export' firms. This is a function of managerial experience and resource based theory. This part of hypothesis 3 is proven. With 7 statistically relevant criteria sighted by new to export SMEs (compared to 11 from experienced exporting SMEs) this may also be a reflection of 'born global' firms. That is, firms that need to rapidly internationalise because of exposures in their local market require more complex IMS information. 'Born global' firms have adopted an orientation to (international) commerce because of exposures (limited growth, saturated market...) they face in staying local. They recognise inherent risks of internationalising and accept a need for greater due diligence including information searches for better IM decision-making. Many 'born global' firms are SMEs.

TABLE III: CORRELATIONS BETWEEN RECOGNITION OF HIGH GLOBAL MARKET IMPACT AND FIRM SIZE/EXPERIENCE, BY IMS CRITERIA

IMS Dimension	Large firms (Correlation coefficient) <sup>a</sup>		Significant difference between high and low experience large exporting firms	Small and medium size firms (Correlation coefficient) <sup>a</sup>		Significant difference between high and low experience SME exporting firms
	Hi exp. N=32	Low exp. N=22		Hi exp. N=43	Low exp. N=54	
Legal Tariff/non-tariff	.574	ns		.727	.485	**
Politics	.562	ns		.592	ns	**
Demographic	.396	ns		.525	.337	**
Market Potential-specific product/service demand and competitor activities	ns	ns		.656	.389	**
Culture differences	.371	ns		.505	.296	**
Generic Macro Financial Health of a foreign Country	.465	ns		.400	ns	
Infrastructure Distribution/logistics	ns	ns		.503	.304	**
Generic Macro Propensity to Spend	ns	ns		.430	.330	*
Infrastructure – Business Partner	.556	ns		.489	ns	
Culture unity	ns	ns		ns	ns	
Other legal	.388	ns		.385	ns	
Geographic	ns	ns		ns	.281	
Infrastructure Communication	ns	ns		.455	ns	
<b>All General (macro)</b>	<b>.458</b>	ns		<b>.627</b>	<b>.332</b>	<b>**</b>
<b>All Product-specific (micro)</b>	<b>.577</b>	ns		<b>.736</b>	<b>.300</b>	<b>**</b>

<sup>a</sup> Correlation coefficients significant at the 0.05 level or above

\*\* Coefficient is significantly greater for more experienced exporting firms (z-score, p<0.05)

\* Coefficient is statistically greater for more experienced exporting firms (z-scores, 0.05 < p < 0.10)

# Product-specific information is statistically greater than general (macro) information (p<0.05)

Export managers in highly export experienced and exporting SMEs place greater importance on a wider range of IMS screening criteria when making export market selection decisions. This is partially supported by Terpstra and Yu 1998; Brewer 2001; Wood and Robertson 2000; Mohamad et al. 2001) but these studies did not set out to relate SME export behaviour to the breadth of IMS criteria so firm support of these studies can not adequately

be made. SMEs placed more importance on conventional general IMS criteria like Political stability, demographic data, and cultural differences than LMSs. We surmise larger firms would only place significance on conventional general and macro criteria if they perceived this criteria were determinants of specific product demand. The authors also suggest larger and especially experienced exporting firms already know more precisely what their IMS information needs are. Their learned knowledge (past experience) has refined their information search to a minimum. Yet paradoxically, experienced large exporting firms are less resource constrained and could develop more complex information searches more than resource challenged SMEs. SMEs have more to lose thus place greater importance on more information even if this is not specific to their IMS decision-making. These findings also don't support Piercy (1981) and Yeoh's (2000) work whom suggest 'small firms have limited schema and seek less information.' We surmise SMEs possibly think general and macro criteria are determinants of marketing success in new markets whereas larger firms and less experienced firms do not think so. We surmise less experienced firms especially larger firms simply have less understanding of the relationship between new market success and some IMS criteria. Again, this was a surprising from large non-export experienced firms. No specific previous studies support this point making this finding new.

SME exporting firms reported higher importance to product-specific (micro) and general (macro) screening criteria than LMEs. This is a significant difference. Except for the "availability and quality of a business partner" in a potential new market, this result suggests SME's (although small and maybe inexperienced), still recognise the importance of IMS criteria that clearly measures revenue potential and the cost to generate this than do LMEs. Of most interest is that highly experienced (larger and SME) firms value specific product related criteria (legal issues like tariff/non-tariff and the protection of IP, and the availability of good partners for manufacture and or distribution and supply/servicing) deemed important for IMS. We would expect experienced exporters to better understand market entry and development comes from establishing good networks and supply relationships with in-market partners. We surmise, New Zealand exporters have strengthened the link between their commercial goals (revenue and profitability) and matching this to specific investment necessary to select and enter a new market to achieve those goals. It is no longer sufficient that broad (and dubious) determinants of demand (socio/cultural, political, demographic...) translates into specific product demand. Product specific or product demand estimation data that more directly enables product sales forecasts and translates to revenue and profit objectives have become more important criteria to compare new markets for selection and entry. The health of an economy as measured by broad macro data like GDP growth, GDP/capita, literacy levels, population growth rates, cost of capital, inflation rates etc does not automatically translate into specific product demand. Thus micro specific product demand measures need to be employed. This is a function of export experience and adoption of contemporary commercial practise. Our results suggest that large and inexperienced firms are not aware (as there are no significant relationships) of the link between global forces and trends, and any IMS criteria. We would have expected LMEs to also value highly an understanding of the downstream distribution chain like SMEs do. But they didn't and this is curious. This is disturbing.

The pattern emerging from Table III is one of greater commercial awareness displayed by SMEs than we might have also expected from all larger firms. SME literature seeks to explain SME behaviour based on resource, commercial experience and managerial orientation and that SME behaviour is less rigorous than larger firms. These results however, suggest commercial prudence does exist with SMEs. It also exists in export experienced large firms. We might also have expected the same prudence from inexperienced large firms but these results suggest otherwise.

## **Discussion and Implications**

Internationalising is fraught with risk. The purpose of this study was to examine the international market selection behaviour of New Zealand exporters. Specifically, to identify whether an awareness of powerful global forces and trends exists, and further, if it did exist whether this awareness influenced IMS criteria when making international market selection decisions. This research also sought to discover whether these relationships differed by level of exporting experience and firm size.

Lack of international experience increases firm risk perceptions of international business (Collis and Montgomery 1996). Indeed the exporting literature suggests that firms with limited international experience often perceive exporting to be more risky than those further along the internationalisation path. Local NZ literature supports these findings and assertions (Hassan and Shaw (2002), Simmons (2002), Ministry of Economic Development (2002), Chetty and Campbell-Hunt (2003).

A key outcome of this research is the cognisance New Zealand exporting firms have with their wider global marketplace. The authors' selection of 9 global forces and trends that formed the first construct of this study are in themselves not new to readers. The list is not all inclusive. The authors considered these 9 forces and trends have significant impact on the operational behaviour and internationalisation of firms. Since this research the authors would add one more element to this list – 'the (pervasive) nature of global broadcast (western) media.' Collectively these forces and trends have not been researched let alone researched to identify correlations with IMS decisions. Other IMS studies have sought to explain export/IMS behaviour but have not been researched in the light of the wider global environment. Therefore an important outcome of this work is a new understanding that IM decisions are not made in isolation of the international market environment exporters are obliged to compete. Managerial implications of this finding include the

1. Recognition by exporters that the contemporary international environment is changing in more significant ways than ever before. This is manifest by readily identifiable forces and trends (construct 1). The recognition also that the impact of this phenomena results in more competition, greater flows and availability of substitute products, more discerning customers and more complex distribution structures than ever before. And to make the best IMS decisions (let alone be internationally competitive) firms need to be constantly developing their market intelligence gathering systems and monitor and respond to global and industry specific forces and trends.
2. Recognition that exporters themselves have adopted a more thorough orientation to internationalisation than previous research has concluded. That is, the importance of environmental scanning as a management discipline is better acknowledged than previously thought. This should be commended. This point does not at all mean exporters operational activity is in line with best practices but the point is that exporters prudence in IMS at least, is more rigorous than we first thought.
3. Market intelligence systems of exporting firms and export service providers like quasi-government agencies need to change to reflect new commercial goals (market demand, accurate forecasting of product sales and revenue & profit). Product specific intelligence and data needs to be the focus rather than the broad and macro information of conventional IM literature. This shift may also explain the research results that suggest quasi government agencies are not providing the information (experienced) exporters want. They respond by developing personal links with market players and more documented information from elsewhere.
4. Crown/quasi government agencies need to clearly determine what information services they provide to exporters. Clearly 'new to export' firms require more and different information than experienced exporters. Government off shore offices need to be tuned for the market intelligence, information and research needs by firm and by industry, and what forces and trends are driving change here. Crown agencies also need to be clear what services they provide by firm/sector size and export experience.
5. Management and marketing education also needs to be shaped along these lines training managers in contemporary IM studies that reflect a dynamic international environment.

Larger firms often possess more resources, achieve higher levels of scale economies, and tend to be associated with lower levels of perceived risk in export market activities in comparison with smaller firms (Bonaccorsi 1992). This statement however, does not explain the fact that there are no correlations at all between awareness of the impact of global forces and trends, and IMS criteria selection in large but inexperienced firms. The smaller firms in this study (Tables III) appeared to be more concerned than larger (especially non-export experienced) firms with changes in the global marketplace. Katsikeas and Morgan (1994) suggest less experienced exporters may need to consider the extent to which a change in the global market environment would influence their internationalisation plans (IMS) and their strategic decision-making. In doing so, they recognise they need to become better informed about global forces and trends and the impact these may have if they expect to compete effectively. This might be a conclusion of this study. We surmise, at least for less experienced SMEs, that that have

realised they have to cope and compete in a rapidly changing environment with their limited resources and are thus more concerned with mitigating risk and loss by making better sense of the export environment by understanding it and the links this has on their success. We would like to suggest the same is true for all LMEs however, this assertion is not supported by our results especially for 'new to export' LMEs. All SMEs have responded prudently by requiring a greater amount of conventional macro and micro product specific information. This appears to be valid in this study of IMS behaviour. The result also reveals that exporters (large and small) who have extensive exporting knowledge also place more importance on their knowledge of the wider environment they are obliged to operate in. They are more knowledgeable about how changes in the global market may influence their international marketing decisions. We commend this. These findings have implications for export firms who are still in early stages of their international business and who have limited experience as an exporter. Again this is a function of increasing managerial experience. The implications of this revelation reinforce the changing emphasis towards new IMS criteria and that past or conventional studies of IMS criteria no longer explain exporter behaviour. This is especially applicable to explain 'born global' or new to export behaviour. These results appear to reflect what are new market performance measures as exporters decide which markets hold greatest appeal.

These findings reflect a more rigorous evaluation of export market information by export managers of experienced large and all SME firms. The first question exporters are addressing now is whether there is fundamental primary or derived demand for their products in the country markets being investigated and whether these markets are accessible in terms of laws (tariff and non tariff barriers) and regulations/compliance (product content, safety, ingredients/components, sanitary, phytosanitary, packaging, animal welfare...) and an understanding of the commercial infrastructure (distribution, communications and partners/distributors). This is all product-specific. In other words, when the impact of the global environment is perceived to be more disruptive for export market selection decisions, there is little point in the export manager seeking out detailed information pertaining to the political, economic and socio-cultural environment of the country if product-specific information such as market potential and access information relegates the country to be of little or no potential.

## **Conclusions**

This study has attempted to provide the academic community with a new understanding of IMS export behaviour. An empirical study of a sample of New Zealand exporters has sought to shed new light about some linkages of knowledge and awareness of the wider international marketplace and relationships with one internationalisation decision – the IMS process.

Our study also seeks to provide a methodological contribution by deriving and validating scale to measure awareness of and impact of contemporary globalisation forces upon exporters. Given that this study was based on a sample of New Zealand exporters, the authors might expect the measurement scale derived in this study should contribute to future research studies of the New Zealand exporting sector. There are implications for both marketing management practise and academia.

## **Limitations and Future Research**

Given the methodology employed in this study was a quantitative technique, future research might take two forms

1. Further empirical work studying the extent of the relationships uncovered in this study. The extent of influence the first construct in this study (9 global forces and trends and whether there are more that take precedence eg pervasive broadcast media) changes over a time. Whether studies of this nature are becoming more important to understand export behaviour with implications both for management practice and Crown/quasi government agencies, academic study and teaching of IM and IB curriculum. Further quantitative studies could easily be industry based eg high technology or design or processed foods sectors.
2. Qualitative research with appropriate research objectives might seek to develop new theory in understanding contemporary managerial behaviour regarding their IMS decision-making and the relationships to pervasive and

changing global market forces. This may enable the development of new theoretical models that explain contemporary management practice in international marketing.

An obvious limitation is that our sample represents one country and findings could vary by country from which exporters operate. Cross-country comparison and replication studies may be useful in the future.

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# The Market Reaction of Top Management Turnover: Evidence from China

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## Abstract

**This paper aims to analyze the market reaction of top management turnover in China. The authors find that on the whole the market has an insignificantly negative reaction to the top management changes. Specifically, the market reaction to top management turnover in small firms and normal top management changes is significantly negative, while to forced top management turnover, the reaction is significantly positive, and there is no significant market reaction to top management turnover caused by other factors and interactions of them.**

## Introduction

As the soul of enterprises, top management is one of the key factors influencing the performance of firms. With the development of Chinese stock market, more and more managerial turnovers happened, and this phenomenon is increasingly attracting attention from both researchers and investors.

The research of top management turnover aims to solve problems in the following two aspects: On the one hand, it tries to study the relation between managerial changes and corporate governance, which is called the research of factors influencing top management changes. On the other hand, it tries to know more about the influences of managerial turnovers to the corporation, including the impact on firm performance, corporate internal governance and stock price during the period of turnover etc., which is called the research of the effect of top management turnover. The relation of them is, in our opinion, just like that of two sides of one mirror. Both of them are depending on and supplementing each other. Some researches are involved in both of them (for example, Warner & Watts, 1988).

As a key part of the effect research of top management turnover, the research of the market reaction to administrative turnover mainly analyzes the changes of stock prices in a short period following the turnover, i.e., the stock market's reaction to the announcement of managerial turnover, which could be divided into three kinds according to the overall impacts of executive succession on organizational performance. Some researchers believe that administrative change will improve performance (Bonnier & Bruner 1986, Furtado & Rozeff 1987, Weisbach 1988, Denis & Denis 1995, Fidrmuc & Fidrmuc 2003, Gaullagher & Nadarajah 2003) The basis for this is maybe "Common sense" or "Great person" theory, which argues that individuals can control outcomes of an organization. A new chief executive can avoid some mistakes of the predecessor and thereby improve organizational performance. Some researchers regard successions as scapegoating rituals and consider that on average they make no difference to the stock price (Brown, 1982; Borstadt, 1985; Klein, Kim, Mahajan, 1985; Reinganum, 1985; Warner, Watts & Wruck, 1988; Zajac, 1990; Jagannathan, 1996). Leadership has little bearing on organizational performance. The change in manager is an attempt to appease fans rather than improve performance. A chief executive only possesses unilateral control over little resource in large companies. Other researchers conclude that executive succession negatively affects performance (Grusky, 1963; Carroll, 1984; Furtado, 1986). They argue that changes in leadership may precipitate a slide in performance because of tensions, instabilities and loose relation between the corporate strategy and corporate structure produced by that. This slide in performance would then increase the likelihood that the leadership would change again, and the cycle would begin anew.

There are lots of papers concerning the top management turnover for firms listed in NYSE and AMEX market. However, as far as we know, there are only a few papers about this for listed companies in China. For the research of top management turnover, Zhu & Lin (2003) finds that the stock market reacts negatively to the

announcement of managerial changes on the whole. Specifically, the market has an insignificant reaction to the top management turnover in firms with good performance while significantly negative reaction to those with bad performance (Zhu & Lin, 2003). Zhang (2002) holds that the market reacts positively to the outside turnover in bad-performed firms. Other relevant conclusion shows that management changes in fund firms caused by reasons other than bad performance will depress the stock price of firms.

This paper aims to explore what effect the administrative changes will have on the listed companies' stock price in China, and thus provides some general implication for the signal of managerial changes. In addition, this paper has some differences in research method as followed compared with the former research. First, it enlarges the scope of top management from CEO, chairman and president to other management such as vice chairman, vice president, CFO etc.. The reason is that those managers also play important roles or maybe leading parts in the future in the operation of corporate and it would be really a pity if we know nothing about the changes of them. Secondly, the authors classify the announcement of administrative changes into three kinds, i.e. two-way turnover, departure and promotion of top management. This classification is also different from the former research. Two-way change involves two people for a given position, one leaving, and the other being appointed. The departure of top management is that the ex-executive leaves the office and no one is appointed to take his or her position at the same time and the promotion of top management is that a new manager is appointed and the ex-executive does not leave the firm but still remains his or her power in some capacity or is promoted to another executive position. The reason for the classification is that the stock market reacts differently to management appointment and management dismissal. We can better know the market's reaction to these three kinds of management changes and compare the difference between them if we can classify them. Finally, this paper excludes those samples that multiple officers change simultaneously and only examine the turnovers involved with only one manager. The reason is that, generally speaking, the market reaction to turnovers of multiple officers is larger than that of single officer. For example, the turnover of the total management team including CEO definitely has larger influence on stock price than the turnover of only CEO does in the same firm. Therefore, we would not know the exact size of market reaction of one officer change if we do not differentiate those two kinds of samples.

The remainder of the paper is organized as follows. In the next section, i.e. section 2, we describe the design of the research. In section 3, the empirical result will be discussed. Section 4 is conclusion.

## **Research Design**

### **Basic Assumption for the Research**

As one of the basic theorems of corporate finance, the market value of a firm is thought to be equal to the sum of future net cash flows discounted back to present. Hence, a firm's value depends on the stream of its future earnings. So, the effects of management changes on stock price could be analyzed through their influence to the firm's future earnings. If the management turnover is thought to be beneficial to increase the firm's future earnings, the investors and then the stock market will give a positive evaluation to the change and thus, the stock price will increase, vice versa. If a managerial shift is not expected to alter the prospect of the firm, the stock price will be not affected. Therefore, the short-run change in the stock price of a firm reflects the changes in the firm's management policies and practices. The market's assessment of the managerial shift will be reflected in the stock's market price. And therefore, we can analyze the effect of administrative succession by studying the behavior of the stock prices around the time the change is announced.

However, there is an underlying hypothesis for this conclusion, i.e., the efficient market hypothesis. The hypothesis argues that the stock market is efficient and could reflect all public information relative to the firm's future earnings. Fortunately, current researches about the market efficiency of China's mainland support this hypothesis. Generally their results are that the stock market is a weak efficient market (Song & Jin, 1995). There are also some researches arguing that it is inconclusive (Wu, 1996). And some advance that stock market in China is not a semi-strong efficient market (Shen, 1996). One market is assumed to be a weak efficient market if it reflects all past relative information. If this survives, it could meet the requirement of our research. Even if it does not, we can

relieve this insufficient-reflection problem by analyzing a relatively long time window, which gives enough time to the market to absorb this signal.

Another problem that may affect the market reaction is the double effect of the announcement of managerial changes, which includes information effect and real effect (Warner et al., 1988; Jensen & Warner, 1988; Bonnier & Burner, 1989). The information effect could be negative if the change suggests that the performance was worse than the market had realized. The real effect would be positive if the change is in stockholders' interest. The combination of real and information effects would produce a wide range of results depending on the magnitude of the individual effects. The subject of this research is the real effect of announcements. However, both effects would be included if the trading data before and after the turnover is taken as the research sample. How to eliminate the information effect and focus on the true effect is the difficult problem for the market reaction research of top management turnover. The solution for this problem is to classify the samples into two kinds according to firm performance prior to the turnover, i.e. firms with bad performance and firms with good performance. For the former kind of firms, the market has taken the information about their awful situation and thus the information effect would be small even if it does exist and even if investors think firm performance would be worse. And for those well-performed firms, information effect could not be avoided and the changes of stock price would be larger if it does exist. Through the comparison of the results of those two kinds of firms, the authors could decide whether the information exists. The authors would mainly focus on the former kind of firms to find the market reaction of administrative turnover if information effect does exist and do not consider the factor of firm performance in the research of other factors influencing the market reaction if it does not exist or is insignificant.

#### **The Scope of Data Collection**

The research subjects of this paper are the top management turnovers of listed companies in Shanghai Stock Exchange and Shenzhen Stock Exchange occurred in 2001 and in 2002, which include the changes of chairman, vice chairman, president, vice president, Chief Financial Officer, Chief Economic Officer etc. and do not include the changes of board directors. The reason for no consideration of directors is that they play very limited role in the operation of firms only through several times of board conferences in one year. The source of the announcements of top management turnover is the website of Asia Securities and Jucao Information and the trading data involved in the research comes from CSMAR (China Securities Market).

Principles of sample selection are listed in the below.

Firstly, the research does not consider the top management turnovers caused by the changes of ownership structure since such turnovers have no direct relation with managers' performance and hence in our opinion it belongs to the research of merger and does not belong to the scope of corporate governance.

Secondly, this paper also does not take into account those samples that have announcements maybe influencing the changes of stock prices such as earning announcement prior to 20 days and after 3 days of the top management turnover announcement. The reason is that those non-turnover announcements are noises in our research and they will affect the exactness of the measurement of administrative changes' effect were they not excluded from the sample.

Thirdly, the turnovers of top management must be long-term but not short-term in our sample, otherwise the effect of long-term appointment would be reduced since generally speaking, the market has more significant reaction to long-term appointment than to short-term appointment.

Fourthly, we only account for the first one when there are two turnover announcements of relevant positions such as appointment of president first and then the nomination of CFO. The reason is that the market could anticipate the second turnover of relevant position when the first turnover occurred and then has a reaction to the latter one in advance and thus the magnitude of the market reaction for the latter would be reduced when it is announced.

Fifthly, the sample firms must have been public for at least one year since the research need trading data of one year before turnovers.

Finally, the sample announcements could have only one position's change, i.e. the announcements involved with two or more positions would be excluded from our sample. The reason is that we would not know the size of the market reaction of one position if we do not partition those two kinds of announcements since the market

reaction of the announcements concerned with two or more positions is for those two or more managers' changes but not for one.

### Sample Description

According to the above-mentioned principles, the authors select 274 samples, and classify the samples according to the posts concerned as in Table 1. These 274 samples are used in the analysis of all factors and their interaction and we use 94 samples of two-way turnovers of chairman and president to make daily return analysis. The classification of top management turnovers sample is presented in Table 1.

TABLE 1: THE CLASSIFICATION OF TOP MANAGEMENT TURNOVERS

	Chairman	President	Vice Chairman	Vice president	CFO	Others	Total
Two way turnover	33	61	2	22	24	1	143
New appointment	9	2	17	43	13	3	87
Dismissals	10	4	5	18	5	2	44
Total	52	67	24	83	42	6	274
Percentage	18.98%	24.45%	8.76%	30.29%	15.33%	2.19%	100.00%

Notes: Others mainly include Chief Engineer, Chief Economist etc.

## Empirical Result

### General Analysis

Through the analysis of the abnormal return in the period (-2, +2) for all turnovers, the author finds that in general the market has insignificant negative reaction to all those three kinds of top management turnovers. (See Table 2).

TABLE 2: THE GENERAL RESULT OF MARKET REACTION OF TOP MANAGEMENT TURNOVER

The type of turnover	Paired turnover	New appointment	Dismissals
Mean	-0.00067	-0.004	-0.0087
T value	-0.15143	-0.86776	-1.19446
Number of the sample	143	87	44

During the sample collection, the author found an interesting example of announcements that the board of directors did not approve the resignation of its chairman. For the announcement, the CAR (cumulative abnormal return) of (-2, +2) is -0.22004, which means that the liquid stockholders lose 36, 036, 000 RMB and the total stockholders lose 100, 902, 000 RMB according to the mean value of liquid stock and total stock in the turnover period of (-2, +2). What worth saying is that the firm's CAR adjusted by industry half year before the turnover is -0.0395, lower than the mean return of the industry. From this we can find that the market could sense that the firm faced the adjustment of management and there is operational risk and thus the market lowers its stock price.

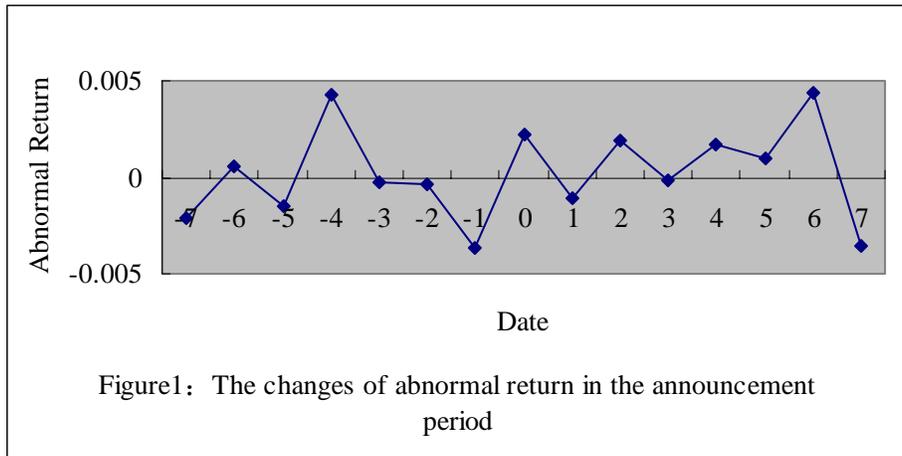
To further approve former conclusion, the authors do daily analysis of (-7, +7). Two-way turnovers are considered as the sample and 5 samples out of 94 are deleted for the following reasons: First, only the former one could be considered if the time distance between chairman turnover and president turnover in one firm is less than half year. Secondly, the source of the successor is not clear.

The stock's abnormal return in the period of top management turnover is presented in Table 3 and the changes of abnormal return in the announcement period is described in Fig. 1. According to Table 3 and Fig. 1, we could further approve that the top management turnover has an insignificantly negative market reaction. Three days before and after the announcement, the cumulative market reaction is insignificantly positive.

TABLE 3: THE STOCK'S ABNORMAL RETURN IN THE PERIOD OF TOP MANAGEMENT TURNOVER

Date	Mean	Standard Error	T value	Date	Mean	Standard Error	T value
-7	-0.0028	0.00221	-1.2719	3	-0.0003	0.00176	-0.1432
-6	-0.0008	0.00226	-0.3441	4	0.00347	0.00283	1.22199
-5	-0.0017	0.00198	-0.8321	5	0.00307	0.00254	1.20181
-4	0.00947	0.00519	1.81478*	6	0.00436	0.00303	1.42835
-3	0.00118	0.00202	0.58143	7	-0.0063	0.00358	-1.7403*
-2	0.00072	0.00172	0.41814	(-7,-3)	0.0054	0.00604	0.89373
-1	-0.0062	0.00363	-1.6994*	(-2,0)	-0.0024	0.00397	-0.6095
0	0.00306	0.00298	1.02247	(-2,1)	-0.0047	0.00555	-0.8444
1	-0.0023	0.00245	-0.9193	(-2,2)	-0.0026	0.00638	-0.4151
2	0.00204	0.00236	0.85791	(3,7)	0.00438	0.00645	0.67988

Note: \*means it is significant at 10% level.



**Analysis of Factors**

As we know, most signals are the mixture of many different factors. The announcement of top management changes is not an exception. Due to many factors underlying the announcement possibly affecting the effects of announcement of management changes, we must examine them in order to know more about this. The influence of factors to the market reaction to top management turnover is showed in Table 4.

TABLE 4: THE INFLUENCE OF FACTORS TO THE MARKET REACTION OF TOP MANAGEMENT TURNOVER

Factors		Parameter	Position					Total
			Chairman	President	Vice Chairman	Vice president	CFO	
Firm Performance	Bad	Mean	-0.0054	0.0118	-0.0023	-0.0217	0.00236	-0.0031
		T value	-0.5318	0.97049	-0.2282	-1.9723*	0.26887	-0.6195
		Number of the sample	29	30	10	28	22	121
	Good	Mean	0.00014	-0.0035	-0.0042	-0.0036	0.00511	-0.0011
		T value	0.01458	-0.6823	-0.8645	-0.6075	0.47361	-0.3268
		Number of the sample	23	35	14	55	20	151
Source of successor	Internal	Mean	-0.01244	-0.0014	-0.0054	-0.0064	0.0037107	-0.004
		T value	-1.5028	-0.1766	-0.8494	-0.7745	0.4642325	-1.0692
		Number of the sample	30	39	10	24	27	132
	External	Mean	0.02552	-0.0081	-0.0245	-0.0074	0.01332	0.00025
		T value	1.53654	-0.7847	-1.48	-0.6399	1.16367	0.0401
		Number of the sample	11	23	4	25	8	72
Firm Size	Small	Mean	-0.0103	-0.0028	-0.0047	-0.016	0.0008	-0.0071
		T value	-1.5094	-0.2591	-0.6499	-2.0587*	0.08358	-1.7103*
		Number of the sample	28	34	12	41	19	137
	Large	Mean	0.00563	0.00111	-0.0021	-0.0036	0.00604	0.00104
		T value	0.44555	0.12017	-0.3032	-0.4671	0.61734	0.24431
		Number of the sample	24	33	12	42	23	137
Reasons For Dismissal	Normal	Mean	0.001	-0.0218	0.00154	-0.0307	-0.0123	-0.0156
		T value	0.07505	-3.0902*	0.16174	-3.4887*	-1.2986	-4.0354*
		Number of the sample	4	43	20	21	30	141
	Forced	Mean	0.02439	0.04083	-0.0035	0.01957	0.02618	0.02613
		T value	3.60682*	3.29085*	-0.1321	2.23992*	2.00847*	4.51291*
		Number of the sample	3	22	7	17	13	78

Note:

1. \*means it is significant at 10% level.
2. Others mainly include Chief Engineer, Chief Economist etc. we do not make an independent analysis due to their small sample.
3. The research excludes those with unclear source of successor or with unclear reason for dismissal in the analysis of those two factors.

### The Power of Position and Title

Some senior management positions have more power than others to lead the firm and affect changes through mechanisms of internal control. Job title may be a proxy for this power, therefore consistent with the internal control hypothesis. We anticipate an association between changes in more powerful titles and the benefits from management

change. This anticipation is implicit in the studies of Waner et al., Reinganum, and Borstadt, who partition event returns by various titles. It is also implicit in the exclusive focus on CEO changes in the studies of Beatty and Zajac (1987), Coughlan & Schmidt (1985), Weisbach (1988), and Lubatkin et al. (1986).

There is no straightforward theory about which titles are associated with greater power. In the spirit of the earlier research, we partition the samples by which kind of titles contained in the turnover, i.e. chairman, president or other managers. No difference among returns for those categories would reject the hypothesis that the power of the position is associated with the magnitude of event returns. Lower returns for the more-power position category would be consistent with Warner et al.'s information content hypothesis that the position is more powerful than the others and that a change here signals that the company must be performing more poorly than previously perceived. Higher returns would be associated with the higher-position category if the position is more powerful than the others and personnel changes in this category were perceived by investors to represent a more material and positive redirection of the firm than represented by changes in lower positions.

According to Table 4, we find that the power of position almost has no effect to the market reaction to administrative changes and the magnitude of the market reaction to chairman and president turnover is not larger than to other positions' turnover, which is consistent with most research results about this (Beatty & Zajac 1987, Coughlan & Schmidt 1985, Weisbach 1988, Lubatkin et al. 1986) and also means that internal control hypothesis and information content hypothesis are not supported in our research.

#### **Firm Performance**

Many empirical studies (Weisbach 1988, Warner et al. 1988, Coughlan & Schmidt 1985) conclude that there is a statistically significant reverse relation between a firm's share performance and the likelihood of a subsequent change of its top management. From this, we could expect that stock market would show more positive reaction to management turnover for distressed firms than that for firms with good performance. The reason is that the hiring of new personnel is linked to favorably conceived real changes within the firm such as shifts in the investment set, shifts in the production function, or new efforts to minimize costs and maximize returns, which are all good to the improvement of firms and thus are better news for distressed firms than for normal firms. In addition, if announcements do not seem to convey bad news such as information about future poor performance, investors would think that management turnovers are board's efforts to increase firm's performance, which is consistent with the wealth-maximizing behavior on the part of investors.

The paper takes the difference between the mean monthly return and the industry's mean monthly return half year before the announcement as the indicator of firm performance. Through the analysis of the abnormal return of (-2, +2) we find that firm performance also has no significant influence to the market reaction of top management turnover, which is consistent with Davison, Worrell & Cheng (1990).

In addition, the market reaction is insignificantly negative except the vice president turnover under poor performance. It means that the information effect does not exist in Chinese stock market. Therefore, the paper will not consider the double effect problem and will take all samples into consideration whether their firm performance is good or bad.

#### **Source of Successor**

Concerning the origin of the successor, inside or outside of the firm, detailed analyses about this are present in many past empirical researches about the stock market's reaction to the administrative changes announcement (Dalton & Kesner, 1983; Reinganum, 1985; Furtado & Rozeff, 1987; Bonnier & Burner, 1989; Parrino, 1997). In general, those studies found that the effects of announcement to the market for internal appointments are quite different from that for external appointments. The reasons are as followed.

First of all, external successions often bring about much larger and significant changes to the firm than internal successions. Many researches provided empirical evidence to this. Helmich & Brown (1972) found that insider successions in the office of president tend to exhibit less organizational change than outsider succession. Helmich (1974) indicated that companies experiencing insider succession tend to be more stable and conservative in the policy of expansion than those after outsider succession. Carlson (1961) argued that insiders are chosen to maintain the current system and provide stability. Outsiders are brought in to promote change and creativity, and are often more prominent.

Secondly, outsiders do not have the firm-specific human capital of insiders (Furtado & Rozeff, 1987). Past working experience enables an insider manager much knowledge about the enterprise that is very useful for the development of the firm, such as the enterprise of the firm's products, customers, competitors, and employees, as well as an informal network providing information and support. Hence, an insider candidate has priority to an outsider in this aspect as one top manager.

Thirdly, the boards of directors know more about insiders than outsiders (Bonnier & Burner, 1989). The firm can acquire information about internal candidates at lower cost (Furtado & Rozeff, 1987). So, in the common situation, the boards of directors maybe prefer to choose insiders to manage the firm rather than outsiders due to more familiarity to them.

In the fourth place, internal promotion gives incentives to junior managers. The firm may prefer to promote rather than hire externally as part of its incentive system to encourage junior executives (Lazear & Rosen, 1981). Otherwise, managers of lower rank maybe fell hopeless when they find the board prefers to promote an outsider to the top position as their direct boss and then lower their passion for work.

Finally, the appointment of outsider may signal that the current situation is so bad that a more qualified manager had to be brought in from outside the firm (Bonnier & Burner, 1989). The firm maybe tries to refrain from doing so in order to avoid such unfavorable phenomenon.

In this research, we classify the sample into two categories according to the source of the successor and find that the market has insignificant reaction to the successor source and has insignificant negative reaction to internal turnover while insignificant positive reaction to external turnover. External turnover has insignificantly smaller market reaction than internal turnover, which is opposite to research result for US security market (for example, Dalton & Kesner, 1983; Reinganum, 1985; Furtado & Rozeff, 1987; Bonnier & Burner, 1989; Parrino, 1997).

#### **Firm Size**

Reinganum (1985) suggests that small firms may have less complex control structures than large firms and therefore the effect of a change in one management position will be more meaningful in a small firm than a large firm. If that is true, and if there are benefits to management change, we would expect that the announcement day excess returns should be inversely related to firm size.

This research uses the ratio between the total market value and the media of that as the indicator of firm size and classify as large firms if the ratio is larger than 1, vice versa. After the comparison between the sample of large firms and the sample of small firms, we find that the market reaction of top management turnover in small firms is significantly negative while insignificantly positive for large firms, which is consistent with Lubatkin et al. (1986)'s research and is opposite to Reinganum (1985)'s research. The reason is maybe that the internal control system in large firms is beneficial to strengthen the role of top management. The research also finds that the magnitude for the market reaction of small firms is larger than that of larger firms, which is same to Reinganum (1985)'s finding.

#### **The Disposition of Predecessors: Normal Turnover/Forced Turnover**

As we can image, a top manager leaves his office due to normal retirement or forced departure will send a quite different signal to investors. For normal retirement, investors maybe think the firm operates normally and will continue its current way of management and no large change will be expected to occur in it. For forced departure, however, investors maybe conclude that the firm is performing so bad that it has to change the top management and would expect that the firm will take large efforts to transform the operation of the firm and the performance will increase for that.

Regarding the dismissals of predecessors, Denis & Denis (1995) document that forced top management changes as proceeded by the large and significant operating performance declines and followed by significant improvement in operating performance and normal retirements are not followed by significant changes but small increase in operating performance. If it is true, we would also expect significantly positive abnormal return after forced designations and insignificant abnormal return after normal retirement.

According to dismissal reason, the research classifies the sample into two categories. One is a normal turnover, i.e. the turnovers that are not caused by the efforts of the board to improve efficiency, mainly caused by ages, health, promotion and reassignment etc. The other is forced turnovers, i.e. the managerial changes resulted by

the efforts of the board to improve administrative efficiency, mainly including dismissals of undue managers, sudden changes of the total management team etc.

After the partition of the sample by dismissal reason, we find that the market reaction of normal turnover is significantly negative while that of forced turnover is significantly positive and the magnitude of the market reaction of forced turnover is larger than that of normal turnover, which is consistent with Denis & Denis (1995)'s finding. However, regarding the performance after the normal turnover, our finding is that the performance continues to be negative opposite to small improvement after normal retirement found by Denis & Denis (1995). The conclusions about the dismissal reason do not change after considering those samples with unclear reason of dismissal.

For the reasons that caused those phenomena, we think it is maybe that the market could distinguish between forced turnovers and normal turnovers and gives a positive evaluation to the former since they are part of efforts of board to improve performance while significantly negative reaction to the normal changes maybe because investors think the successors will worse than the predecessors and then firm performance will decline after the changes.

#### Interactions among Variables

Those factors not only play critical roles individually in explaining the market's reaction to the announcement of top managerial changes, but also jointly offer extraordinary explanation to the explanation. Let me explain them one by one in the discussion below. The result of interactions among variables on the market reaction of top management turnover is described in Table 5.

TABLE 5: THE INFLUENCE OF INTERACTIONS AMONG VARIABLES ON THE MARKET REACTION OF TOP MANAGEMENT TURNOVER

Source of successor	Parameter	Firm size		Reason of dismissal		Firm performance		Industry	
		Small	Large	Normal	Forced	Bad	Good	Low similarity	High similarity
Internal	Mean	-0.007	-0.002	-0.015	0.0203	-8.00E-04	-0.003	-0.005427	-0.00103
	T value	-1.415	-0.353	-2.353*	3.0361*	-0.144	-0.686	-1.150233	-0.16604
	Number of the sample	55	77	58	30	60	70	90	42
External	Mean	-0.007	0.0101	-0.015	0.044	-0.008	0.0077	0.0011	-0.002
	T value	-0.914	1.0153	-2.094*	3.1095*	-0.777	1.0721	0.1693	-0.112
	Number of the sample	41	31	31	11	34	38	51	21

Note:

1. \*means it is significant at 10% level.
2. We exclude those with unclear source of successor or with unclear reason for disposal in the analysis of those two factors.

#### Firm Size and Source of Successor

With respect to the joint effects of origin and size, Dalton & Kesner (1983) argued that insider successions in large firms are more preferable and frequent than that in small firms and outside successions are more often occurred in small firms than in large firms. Reinganum (1985) provides empirical evidence that paired appointment has a significantly positive effect on the firm's stock price, otherwise insignificant. Furtado & Rozeff (1987) indicated that external appointments among large firms are greeted far less favorably by the capital market than internal promotions. In short, they think stock market prefers insider succession for large firms and outsider succession for small firms relatively. There are several reasons, we think, accounting for the above conclusion.

Firstly, more difficulties are expected to meet for radical changes of corporate policies in large firms than in small firms due to large firms' complexity, which are often brought by outside succession (Dalton & Kesner, 1983).

Secondly, large firms often have more options with respect to inside/outside succession due to their strength of training and opportunities of promotion, and they often prefer inside candidates for their familiarity with internal operations (Dalton & Kesner, 1983). By contrast, for small firms, it is radically different. Compared with large firms, it may be more costly to maintain the inventory of executives for small firms. And in smaller firms firm-specific human capital may be less important than general managerial capital. And what we should pay attention to is that general and firm-specific capital is the main factor in selecting internal/outside candidates. So, according to this, more outside successions will occur in small firms, vice versa.

In the last place, the selection of top management is influenced by internal power structure in large firms, which often makes insiders have the priority in the competition with outsiders (Dalton & Kesner, 1983).

After the analysis of the interaction between firm size and origin of successor, we find that there is no significant difference among market reactions of different source of successor and different firm size, and also the market has a negative response to managerial changes in small firms and to internal changes in large firms, which is inconsistent with Reinganum (1985) and Furtado & Rozeff (1987)'s conclusion that the market prefers outside turnover for small firms and inside turnover for large firms.

To further prove such difference, we redefine the firm size and take those firms with relevant value of total market value less than 0.5 as small firms (about the smallest 10% of the sample) and those with relevant value more than 7 as large firms (about top 20% of the sample). The result is presented in Table 6. We find that internal turnover in large firms has a significantly positive reaction, otherwise insignificant, which illustrates that for particularly large firms internal turnovers are beneficial and for small firms no significant benefits are brought about by outside turnover maybe due to incomplete internal structure and limited role for outside talent caused by that.

TABLE 6: THE INFLUENCE OF INTERACTIONS AMONG VARIABLES ON THE MARKET REACTION OF TOP MANAGEMENT TURNOVER (SUPPLEMENT)

Source of successor	Parameter	Firm size		Firm Performance	Parameter Normal	Reason of dismissal	
		Small*	Large*1			Normal	Forced
Internal	Mean	0.00194	0.01614	Bad	Mean	-0.0169	0.03864
	T value	0.11617	1.89107*		T value	-3.0807*	3.3642*
	Number of the sample	11	23		Number of the sample	54	32
External	Mean	-0.01	0.01012	Good	Mean	-0.0106	0.01278
	T value	-0.5843	0.30576		T value	-1.9886*	2.78942*
	Number of the sample	10	7		Number of the sample	65	30

Note:

1. \*means it is significant at 10% level.
2. Small firms\* are defined here as those firms with relevant value of total market value lower than 0.5 and large firms \* are defined here as those firms with relevant value of total market value higher than 7.

#### Reason of Dismissals and Source of Successor

According to former analysis, we assume that normal internal turnover's market reaction is insignificant while forced outside turnover's market reaction is significant. However, after the interactive analysis of those two factors, I find that the market responds significantly negatively to normal turnovers while significantly positively to forced turnover and thus does not support the assumption.

#### Firm Performance and Source of Successor

As we can picture, there is more possibility that outside succession happen when the firm is bad performed and internal successions occur when firm performance is good. Therefore, we assume that outside turnover at bad performance has a significant reaction while internal turnover at good performance has an insignificant reaction. However, our finding does not support it. We find that both interactions are insignificant and only the market

reaction to outside succession at good performance is positive. This means that this assumption is also not supported by the research.

#### **Industry and Source of Successor**

According to the research by Parrino (1997), the homogeneity of the industry that a firm belongs to also correlates with the market's effect on the administrative changes. He argued that intra-industry CEO appointments are less costly due to less difference of firm-specific human capital between insiders and outsiders, and performance measures are more precise in homogeneous industry. And also, he got the result that the likelihood of turnover, forced turnover, and outside succession, together with the likelihood that a fired CEO is replaced by an executive from another firm in the same industry increase with the similarity of industry homogeneity. Based on this, we would expect that the incidence of external appointments will increase and the market's reaction to external succession will be more favorable with the increase of the homogeneity of industry.

Also following the research of Parrino (1997), we divide the industries into two categories, one is those with high similarity, including clothing, public service, excavation, houses, banking, farming, trading and information service, the other is those industries with low similarity, including industries other than the former ones. After making interactive analysis, we find the factor of difference industry has no significant influence on the market reaction to top management turnovers. Outside turnovers in the firms of industries with lower similarity has an insignificantly positive market reaction while others' market reaction is insignificantly negative, which is opposite to the assumption. The reasons for that, we believe is the intrinsic problems of the operation of Chinese stock market. According to our long-term observation, Chinese stock market rises and falls almost simultaneously and the difference of the stock price' changes in different industries is very small and insignificant since the macroeconomic policies play a leading role and the factors influencing the future earnings of firms only play a secondary role in the changes of stock price.

#### **Firm Performance and Reasons of Dismissals**

Due to intrinsic features of dismissal reasons, we expect the market has a significantly positive reaction for forced turnovers at poor performance while insignificant reaction for normal turnovers at good performance. The interactive analysis finds that the market reaction to forced turnovers is better than to normal turnovers for firms with bad performance and the market reaction to normal turnovers is relatively small although significant for firms with good performance. Such finding is consistent with the assumption.

## **Conclusion**

According to the discussion above, we get the conclusion that, generally speaking, the market reaction of top management turnover is insignificantly negative, which is consistent with Zhu & Lin (2003)'s finding and supports the second hypothesis, i.e. Scapegoat Rituals theory and also partly supports the third hypothesis of Bad Cycle theory due to their negative reaction.

After analyzing the factors influencing the market reaction to top management turnover, we find that performance of the firm; title and source of the successor have almost no influence to the market reaction. For firm size, only small firms' administrative turnovers have significantly negative market reaction and the market responds insignificantly positive to administrative turnovers in larger firms, the reason of which is possibly the relatively better mechanism of internal control in large firms strengthening the function of top management. What makes most significant influence to the market is the dismissal of top management. The market responds significantly negative to normal turnovers and significantly positive to forced turnovers with larger intensity.

For interactions among these factors, we find that the interactions between firm performance and origin of successor, industry and origin are insignificant. Firm performance and dismissal reason have a significant interaction. The market reaction to forced turnovers is better than the reaction to normal turnovers for firms with bad performance, while the market reaction to normal turnovers is relatively small although significant for firms with good performance, which is almost consistent with the assumption. The market prefers internal turnovers of large firms while there is no evidence for preference of the market to outside turnovers of small firms, neither is there any support found for larger magnitude of the market reaction to forced outside turnover than to normal internal turnover.

What is worthy mentioning is that the paper does not calculate the data to classify the industry according to the method of Parrino, but directly use Parrino's classification in the analysis of industry, which may result in unsteadiness of the conclusion about industry of the paper.

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# **The Role of Source/Target Characteristics in the Application of Recommendations: A Taiwan Study on Buying Centers**

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## **Abstract**

The author follows interpersonal viewpoint and presents the results of a more complete study of the framework components. Responses in Taiwan are collected and used from a survey of 208 purchase decisions in a structural equation model linking source/target characteristics, the manifest influence, and the choice of recommendations. Support is found for hypothesized effects of expert power and the source's organizational level on recommendations. The use of recommendations and the target's dependence on the source are also effective in changing a target's behaviors and opinions in buying centers. However, some source/target related factors, which includes the source's organizational reasons to influence, the target's status and his or her dependence on the source, appeared to have unexpected but significant effects on this influence strategy. These findings provide implications for the impact that structural changes within dyadic relationship can have on the choice of recommendations.

## **Introduction**

The use of recommendations has been an important means or strategy to influence others in modern business environments. However, considerable research on recommendations applied in marketing topics has centered on inter-organizational contexts or marketing channels (e.g., Boyle et al., 1992; Frazier & Summers, 1984, 1986; Kale, 1989; Shamdasani et al., 2001), rare in it has been investigations trying to generalize these findings to intra-organizational contexts, such as those in purchasing committees (e.g., Farrell & Schroder, 1999; Venkatesh et al., 1995).

Moreover, previous research on influence dynamics in buying centers just defined all the members except the source in the decision unit as a single target (e.g., Dawes et al., 1998; Kohli, 1989; Venkatesh et al., 1995). Extending the findings from the group level to the individual level may lead to a locus problem or fallacies (Frankfort-Nachmias & Nachmias, 1992). Consequently, our insight into the personal effect of recommendations is limited, and we have little knowledge of the relative importance of the determinants from an individual source or target. These potential problems could be solved by incorporating some aspects from the studies on social influence, because the 80s has seen substantially increased attention devoted to interpersonal influence processes in organizations (Schriesheim & Hinkin, 1990).

The purpose of our study was to integrate the constructs derived from the literature into a single framework to test their relative effects on the use of recommendations, and analyze how recommendations impact other members in local buying centers. This paper concludes with a discussion of results, managerial implications, and suggestions for future research.

## **The Way Recommendations Work: Model and Relationships**

The proposed framework simultaneously encompasses the elements of influential issues advanced by Farrell and Schroder (1999), Kipnis et al. (1980), Rao et al. (1995), and Venkatesh et al. (1995) and thereby identifies the principal factors that constitute the potential antecedents of recommendations and their consequence. Implicit in our framework is the belief that the use of recommendations by influencers is explained by some target and source characteristics. The key constructs used in our model were defined to develop the context used in this study. They are manifest influence as the dependent variable, recommendations as the mediator variable, dependence on the source and target status as the target-related factors, and organizational goals, expert power, and organizational level

as the source-related factors.

As shown in Fig. 1, the major premise is that target and source characteristics have both direct and indirect effects on the use of recommendations and manifest influence in organizational buying decision-making. This model extends current thinking on the effectiveness of recommendations. First, it explicitly includes the perspectives from the standpoints of buying centers and social influence. Second, because interpersonal influence in the process of organizational buying decision-making gets involved with dyadic relationships, the effects of target and source characteristics are explicitly addressed. Finally, the notion that recommendations are a fundamentally useful tactic is elaborated upon and contingencies that moderate the emerging of recommendations are discussed.

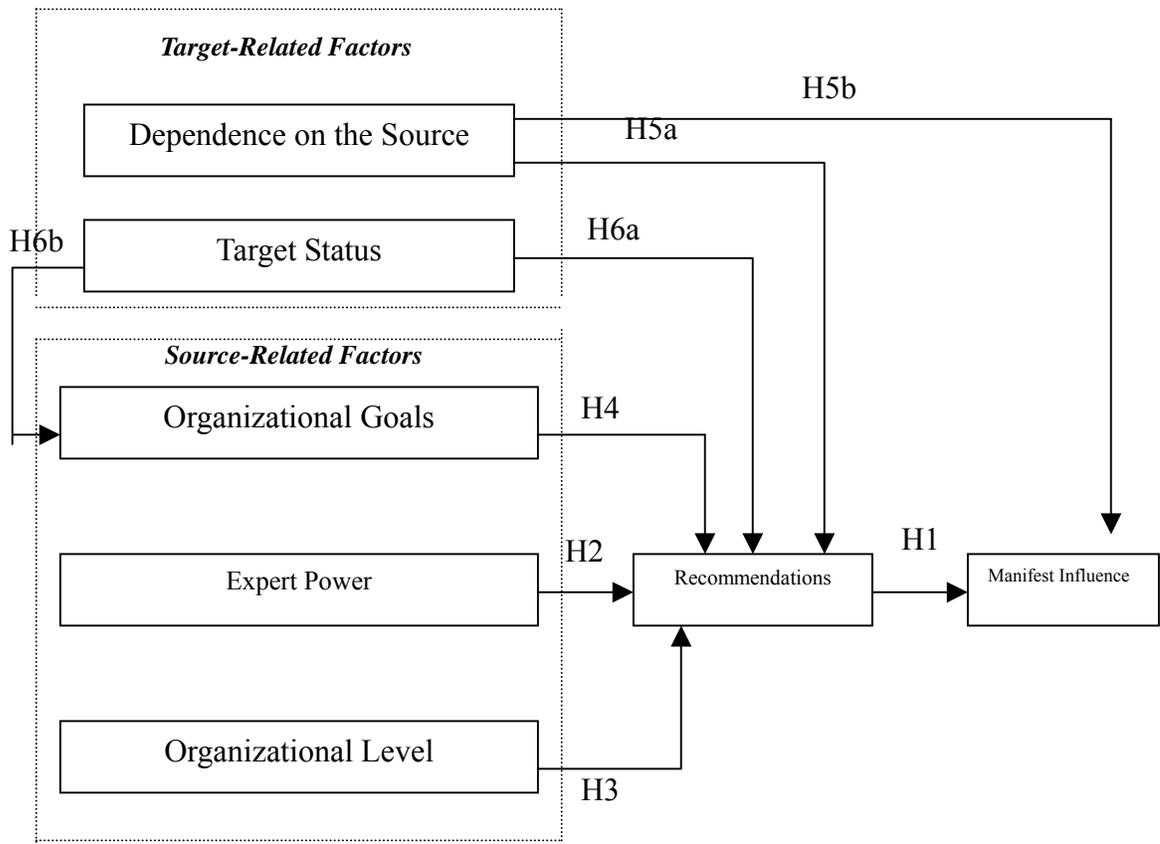


FIG. 1 HYPOTHESIZED MODEL OF RECOMMENDATIONS

## Methodology

### Sampling and Data Collection Procedures

Our sample was generated from a list of the members of the Chinese Association of Purchasing Management (CAPM) in Taiwan. Most of the potential informants were purchasing agents and from several dozen firms and nonprofit organizations in various sectors. This ensured that they were actively involved in organizational buying decisions, and more likely to be knowledgeable about the information needed.

We mailed a survey questionnaire to the offices of 395 potential informants with personalized letters explaining that the purpose of this study was to discuss purchasing-related issues. The initial mailing was followed two weeks later by a reminder and a second copy of the questionnaire. This procedure was repeated two weeks after

the first run. A total of 208 informants completed the questionnaire (52.7% response rate). The estimation procedure applied here was maximum likelihood estimation (MLE), and the sample size approximated a “critical sample size” of 200 (Hoelter, 1983). More than one half of the employing organizations were from manufacturing and financial service. The informants included in the analyses had been purchasing agents for an average of 5.8 years. Of the responding informants, 58% were male and 42% were female.

To ensure the interaction in a buying center to emerge and deliberation in the decisions-making, we selected a product or service purchased that was (1) more than US\$14,300, (2) with strategic importance for the organization to win a competitive advantage, (3) an infrequent purchase, (4) available from various suppliers and criteria, without an obvious choice in the involved members, and (5) decided on the final evaluation and selection phase of the purchasing process within the past 18 months (Dawes et al., 1998; Venkatesh et al., 1995). Additionally, to ensure variance in the influence attempt direction, the informants were divided into three even groups with each group directed to follow the same direction of influence attempts (i.e., upward, downward, and lateral).

#### **Development and Validation of Measures**

The measure of manifest influence was suggested by Kohli and Zaltman (1988) with minor adaptations to conform to the interpersonal context. Scales for recommendations were developed with the reference to the ideas of some previous research (Boyle et al., 1992; Frazier & Summers, 1984, 1986; Venkatesh et al., 1995). Expert power was adapted from the scales developed by Kohli (1989) and Venkatesh et al. (1995). Organizational goals were measured with scales suggested by Yukl and Falbe (1990) with adaptations. The literature review suggested the measures of organizational level (Rao et al., 1995) and target status (Kipnis et al., 1980). The scales developed by Ross, Jr. et al. (1997), with minor adaptations, were applied for target’s dependence on the source.

Analyses were conducted in order to create a refined set of valid measures before estimating the integrated model and testing the hypothesized effects. Although the hypothesized model in this research included only limited factors of broader taxonomies, the excluded factors were supposed to be taken in consideration to meet the validity testing requirement. With a systematically sampled data set of 50 informants from the same population, we examined the factor structure of the items by combining items assessing a specific taxonomy as a single model, such as six influence strategies (i.e., requests, information exchange, recommendations, promises, threats, and legalistic pleas), six bases of power (i.e., referent power, information power, expert power, reward power, coercive power, and legitimate power), and two individual goals (i.e., organizational goals and personal goals). Exploratory factor analysis (EFA) was applied with oblique rotation to the combinations and two independent constructs (i.e., manifest influence and dependence on the source) respectively to find and eliminate items that failed to load strongly (i.e., less than .35) on a single factor and weakly on other factors. Results showed that all of the factors’ eigenvalues were greater than 1.0 and other important statistics are presented in Table 1.

TABLE 1: SUMMARY OF EFA RESULTS

EFA model	No. of theoretical Factor	No. of item after deleted (No. of deleted item)	% of accumulated variance accounted for
Dependence on the source	1	4 (2)	41.54
Base of power	6	23 (5)	74.91
Individual goals	2	8 (0)	63.57
Influence strategies	6	24 (9)	73.64
Manifest influence	1	7 (2)	59.29

The reliability of each of the measures was assessed by computing its Cronbach’s alpha, and the outcomes were acceptable (alpha values range from .62 to .97, and are above the low standard of .35 thus). After the formal survey process, items were deleted from their perspective constructs if doing so increased the scale reliability. The final values of Cronbach’s alpha, higher than those from the pretest results, range from .72 to .97. Next, the items were confirmatory factor analyzed (CFA) using the LISREL model again to check their construct validity.

All models produced p-values of chi-square <.01 and the author might conclude that significant differences

exist between the actual model and proposed model. However, we should examine other measures as the number of indicators increased (Hair et al., 1998). Table 2 presents the summary of important indexes from the CFA solution. Results indicated that all standardized factor loadings to the single latent variables ranged from .5 to .95 with p-values <.01. Most of the models had values of goodness-of-fit index (GFI), normed fit index (NFI), and adjusted goodness-of-fit index (AGFI) >.9. Their values of root mean square residual (RMRS) were marginally acceptable.

TABLE 2: IMPORTANT INDEXES OF CFA RESULTS

CFA model	GFI	RMRS	NFI	AGFI	Non-Normed Index Delta 2
Dependence on the source	.89	.06	.90	.84	.91
Base of power	.90	.06	.92	.85	.97
Individual goals	.99	.03	.99	.94	.99
Influence strategies	.88	.06	.91	.83	.96
Manifest influence	.98	.01	.97	.94	.97

## Analysis and Results

### Model Estimation

An overall measurement model of legalistic pleas with 7 constructs and 22 indicators was analyzed using LISREL with MLE estimation. The fit statistics for the hypothesized model indicated the degree to which the model fit the data: p-value of chi-square <.01. We also examined other measures as the number of indicators increased (Hair et al., 1998). The values of the measures (GFI =.89, RMSR =.07, NFI =.86, AGFI =.85, and non-normed index delta 2 =.96) indicated that the model was at a marginal acceptance level (Bagozzi & Yi, 1988; Grandzol & Gershon, 1998; Tamimi, 1998). As seen in Table 3, the standardized factor loadings for all multiple-item constructs were positive and high (which range from .57 to .91) with p-values <.01, which indicated the convergence of the items to their responding underlying constructs.

TABLE 3 ASSESSMENT OF MEASUREMENT OF THE LISREL MODEL

Construct●	Indicator	Standardized factor loading
Dependence on the source  <i>Cronbach's alpha=.80</i>	1.S/he is essential to fulfill my task or achieve my goal.	.78□
	2.S/he is important to my present as well as future task-fulfilling or goal-achieving.	.78***
	3.I am quite dependent on him or her.	.64***
	4.S/he offers a unique set of benefits to my task-fulfilling or goal-achieving.	.57***
Expert power  <i>Cronbach's alpha=.88</i>	1.I felt s/he was knowledgeable about the company's needs with respect to the product to be procured	.77□
	2.I felt s/he was competent to make an assessment of the various options.	.88***
	3.I felt s/he knew exactly how the product would be used.	.75***
	4.I felt s/he had the expertise to make the best decision.	.79***
Organizational goals  <i>Cronbach's alpha=.82</i>	1. Asked you to do a new task or work on a new project or account.	.91□
	2. Asked you to do a task faster or better.	.72***

Recommendations	1. Made it clear that by following his or her recommendation(s), our business would benefit.	.66□
<b>Cronbach's alpha=.86</b>	2. Made it explicit, when making a suggestion, that it was intended for the good of our operation.	.74***
	3. Provided a clear picture of the anticipated positive impact on our operations his or her recommended course of action will have.	.78***
	4. Outlined the logic and/or evidence for expecting success from the specific action(s) suggested by him or her.	.73***
	5. Indicated that a better decision would be made by following his or her suggestion(s).	.72***
		.80***
Manifest influence	1. How much impact did s/he have on your thinking?	.77□
<b>Cronbach's alpha=.90</b>	2. To what extent did s/he influence the criteria used for making your final decision?	.82***
	3. How much effect did his or her involvement in the purchase process have on how you rated various options?	.73***
	4. To what extent did s/he influence you into adopting certain positions about the various options?	.66***
	5. To what extent did his or her participation influence your decision eventually reached?	.79***

• : Target status and organizational level are not included due to their single indicators.

★ : Fixed at 1.00 before standardized

\*:  $P < .10$ , \*\*:  $P < .05$ , \*\*\*:  $P < .01$ .

### Empirical Support

After model estimation, we applied one-tailed tests of significance to determine the significance of each cause-effect relationship. Table 4 provides the structural parameter estimates (standardized coefficients) of the hypothesized model. As predicted by H1, the use of recommendations has a moderately significant and positive effect on the source's manifest influence on the target (standardized coefficient = .35,  $p < .05$ ). In weak support of H2 and H3, a source with expert power or lower level in the organization tends to exercise recommendations to change the target's opinions and behaviors (H2 = .14,  $p < .1$ ; H3 = -.11,  $p < .1$ ). Counter to H4, organizational goals were found negatively related to the frequency with which recommendations are used (standardized coefficient = -.56,  $p < .05$ ).

The roles of a target's dependence on the source and his/her status with the organization were partly supported by our results. As predicted, the former was found to have a positive effect on manifest influence (H5b = .36,  $p < .01$ ), and the latter appears to relate negatively with organizational goals to influence others (H6b = -.30,  $p < .01$ ). Counter to H5a, however, a target's dependence on the source might be likely to enhance his or her frequency of recommendations to win compliance (H5a = .35,  $p < .01$ ). Against our speculation, a target's status may decrease the use of recommendations (H6a = -.35,  $p < .01$ ). To summarize, in general, the model estimated can explain most of the dynamics of recommendations used in our contexts.

TABLE 4: ESTIMATED EFFECTS WITHIN HYPOTHESIZED MODEL

Hypothesis	Effect	Coefficient	t-value	Empirical Support
H1 (+)	Recommendations→ Manifest Influence	.35	2.21**	Yes
H2 (+)	Expert Power →Recommendations	.14	1.93*	Yes
H3 (-)	Organizational Level →Recommendations	-.11	-1.65*	Yes
H4 (+)	Organizational Goals →Recommendations	-.56	-6.97**	Significantly Negative
H5a(-)	Dependence on the Source →Recommendations	.35	4.45***	Significantly Positive
H5b(+)	Dependence on the Source →Manifest Influence	.36	3.85***	Yes
H6a(+)	Target Status →Recommendations	-.35	-3.93***	Significantly Negative
H6b(-)	Target Status →Organizational Goals	-.30	-4.12***	Yes

\*:  $P < .1$  (one tailed), \*\*:  $P < .05$  (one tailed), \*\*\*:  $P < .01$  (one tailed).

## Discussion and Conclusion

Our findings suggest that legalistic pleas are substantially effective in bringing about changes in purchase decision-related opinions and behaviors of buying center members. In addition, results regarding the antecedents of recommendations concluded that target characteristics may not demonstrate clear effects on the choice of influence strategies but only facilitate compliance-winning. This dependence-influence relationship responds to the implications of previous research (cf. Brown et al., 1983; Bucklin, 1973; El-Ansary, 1975; Etgar, 1976; Skinner & Guiltinan, 1985). As we previously speculated, sources make greater use of recommendations that respond to expert power and their lower levels within organizations.

One finding against our hypothesis is that the target's status appears to have a negative effect on the choice of recommendations. This outcome implies that there may be no linear relationship between target's status and the rationality of influence strategies suggested by Kipnis et al. (1980). Our findings were also counter to the reasoning stating that when the target relied less on the source or when the source seek to improve the target's performance, assign work to the target, initiate change, or promote new ideas, the source would apply indirect and reasonable influence strategies such as recommendations.

In summary, the current study yielded results that appear partly consistent with theories and behavioral research in buying centers and social influence. This study provides some important insights into the effective application of recommendations as an influence strategy by individual buying center members.

## Limitations and Remarks

Our study is not without limitations that need to be acknowledged and remedied in future research. First, there are substantial differences in the measurement of influence strategies among studies (Yukl & Tracey, 1992). This has been a serious problem for researchers in making comparisons with previous findings and designing advanced research based on literature reviews. Thus, to integrate more research findings and prospects from various disciplines, a commonly accepted typology for influence tactics or strategies for empirical research should be developed and refined in the future.

Specifically, we applied retrospective, lateral, and self-reported data from targets, which could account for some of the difference between the source's and the target's reports on influence. Previous research suggested that descriptions of a source's influence attempt by targets may be insensitive to subtle forms of influence that are successful only if the target is not aware they are being used (cf. Yukl & Tracey, 1992). Furthermore, manifest influence described by the source in a decision-making process might be named as "perceived influence" (cf. Beatty & Talpade, 1994). Incorporating opinions of the source in the future could provide an unbiased report of actual behavior and dynamics, thus identifying the inconsistencies between a source's intentions and the target's perceptions (cf. Farrell & Schroder, 1999; Venkatesh et al., 1995). Ideally, research with experimental designs is needed to verify the effects of legalistic pleas on the consequences.

Finally, additional research is needed to expand the present model and explain the linkages among legitimating and several consequences (cf. Rao et al., 1995; Wayne et al., 1997; Wayne & Ferris, 1990). Despite these limitations, this study furthered the level of understanding of how legalistic pleas are perceived and used.

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# **The Role of Risk Perceptions and Market Turbulence in the Internationalization of Foreign Companies to Africa**

## **Lessons from Finnish Firms in the Republic of South Africa**

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### **Abstract**

This paper discusses the internationalization behavior of foreign firms in Africa based on their perception of risk and the way they manage market change and turbulence. The empirical lessons are based on fourteen qualitative interviews with seven companies carried out in Finland and South Africa. The study suggests that changes in the external and internal environment leading to a lower risk perception and increased positive expectations may lead companies towards more direct investment in African countries. The companies surveyed have increased their involvement in the South African market since the end of apartheid. The country is viewed as being advanced in many areas and as having a big untapped potential. However, a turbulent business situation caused by a high level of regulatory intervention and an undeveloped economy in some sectors is causing uncertainty for foreign companies.

### **Introduction**

Internationalization researchers have long asserted that the internationalization behaviour of companies is driven mainly by risk aversion and the perception of expectations, mediated by experiential knowledge and resources acquired by the firm. According to the Uppsala Internationalization Model firms will avoid markets that they consider risky and psychically distant. However, their behaviour is dynamic and they will consider moving into such markets as their perception changes and as they acquire more knowledge of the market [Johanson and Vahlne, 1990]. The variety of modes of internationalization used by firms lie on a continuum from very little involvement where the foreign company exports its products indirectly and avoids any direct involvement in the destination market to FDI where it establishes a jointly or fully-owned subsidiary in the destination market and undertakes market development strategies there [Johanson and Vahlne, 1990; Beamish, 1988]. Between the two extremes lie various operation modes like licensing, franchising, management contracts, and project operations. The amount of FDI a country receives is said to depend on its policies and on the national and international business environment [Lall, 2003; Borensztein et al, 1998]. For African countries, economic development could be hastened by FDI in which foreign firms establish subsidiaries for market development and production. While total foreign direct investments [FDI] to emerging, transitional and developing countries in general increased heavily from the mid-1990s, FDI to Africa decreased or stagnated [UNCTAD, 2001]. This happened despite the implementation of political and economic liberalization since the mid-1980s in many African countries [UNCTAD, 1999; World Bank, 2002]. Furthermore, this was despite the finding of the World Bank to the effect that “the least known fact about FDI in Africa is that the profitability of foreign affiliates of Transnational Corporations in Africa has been high, and that in recent years it has been higher than most other host regions of the world” [UNCTAD, 1999: 17].” Even though, a 21% increase in FDI for Africa to \$15 billion was recorded for 2003 compared with 2002, total foreign investment in Africa is still only about 2% of the world total [UNCTAD, 2004]. It is, however, noteworthy that the increase in investment for Africa in 2003 happened at the same time as total FDI to developed countries decreased by 25%. A major reason for the relatively low level of FDI to Africa is the perception of the continent as risky and unstable, and therefore the low positive expectations for the medium to long-term by the international business community. According to the World Bank [2003] investors were choosing mainly high-return projects due to the perception of risk and low positive expectations. In other words, most of the investment went to areas that brought high levels of

profit – mainly in oil drilling and mining. Relatively very few foreign companies have gone into market development within the local African market in either business-to-business or business-to-consumer areas.

The South African economy has been an exception in many areas. It is by far the most developed economy on the continent with a far higher per-capita income than the average of the rest of the continent [UNDP, 2004]. Some of its modern economic sectors are comparable to those of the developed countries. Particularly, its mining sector is among the most advanced and productive in the world. The sector depends on a varied range of minerals and boasts of some of the world's most important mining companies like the Anglo Platinum Ltd. Therefore, it is potentially a very important market for foreign mining companies, suppliers, sub-contractors and machinery developers. However, until recently, South Africa's economy was considered as risky as those of many African countries. Political changes leading to the end of apartheid and the establishment of majority rule have changed the business environment. Whereas the country was previously facing political and economic sanctions and was banned to any self-respecting foreign company, it has now gained respect and is open for business. Many new firms, as well as those that had previously divested, have entered the market. In many business circles the country is now considered an emerging market even in non-mining sectors, at par with economies like Brazil, South Korea and those of Eastern Europe.

One of the important characteristics of the South African market is the drastic difference between its modern "first world", and its traditional "third world" economy. The "first world" economy consists of technologically advanced companies that use modern business and management practices. The "third world" economy is driven by more traditional business practices, low level of education, and low level of modern business and technical skills, among others. One of the major cornerstones of the policies of the post-apartheid government is to integrate the two parts of the economy. The new government seeks to redress the severe social and economic injustices meted out to the non-white population during the apartheid era by insisting on affirmative action in employment, contracts and business ownership [Michie and Padayachee, ed., 1997; [www.info.gov.za/aboutsa/economy.htm](http://www.info.gov.za/aboutsa/economy.htm). Accessed 17.12.2004]. This has created a sense of turbulence in the business environment for foreign companies.

## **Problem Area, Aims, and Justifications**

The extant internationalization literature proposes that the internationalization decisions of firms are based on a complex calculation governed by risk aversion and expectations [Johansson and Vahlne, 1977; Johanson and Vahlne, 1990], by the costs of producing within the company compared to externalizing [Andersen, Erik and Gatignon, Hubert, 1986], by rational economic analyses of ownership, location and internalization advantages in which the firm locates in foreign markets where its advantages can best be exploited [Dunning, 2000], or based on a network strategy where the firm uses its business relationships to move to lucrative markets [Johanson and Mattsson, 1995]. While the propositions above are applicable to all markets, contextual studies have concentrated on studies of developed markets. Even though research interest in emerging and transitional markets has recently been expanding, very little of the contextual research deals with African business issues, and internationalization of foreign business in Africa is still under-researched. Arnold and Quelch [1998] stress the potentials of all emerging and developing markets and suggest that firms should move in early to gain a first-mover advantage. Awuah [1997] studied how the capabilities of local firms sub-contracting to a multinational located in Ghana developed through their market relationships. He found that the both the local firms and the foreign investor benefited from the relationships. Owusu [2002] suggested that project marketing by industrial firms that were not ready to invest in the African market could provide them a valuable knowledge of the African market and relationships that they could build on later for greater involvement there. Boateng and Glaister [2002] studied the performance of joint ventures (JVs) between foreign investors and local companies in West Africa. They found that the success was constrained by lack of capital in the African market, the capabilities of the JV partners, and the level of mutual goals and motives. Some of these problems were a result of the national policy environments

The aim of this paper is to discuss the internationalization behavior of foreign firms in African markets as a result of their perception of risk and the way they manage market change and turbulence. More specifically, in the

case of South Africa, we investigate how the changes that occurred in the country impacted on the internationalization decisions of companies and how the companies have dealt with the apparently turbulent political, economic and social situation in the country. The general empirical lessons are based on a fourteen qualitative interviews with seven companies carried out in Finland and South Africa. One illustrative case of a Finnish business-to-business firm in South Africa is used to discuss and illustrate the evidence and implications.

The discussion should contribute to the general knowledge of international business and investment in African economies as well as ways of managing market change and turbulence. The evidence and implications of this paper provide insight into similar situations that exist in other African countries and may allow researchers and foreign companies to better understand the South African market in particular and the markets of many other African countries.

## Methodology

This paper is based on qualitative methodology. The ontology of this study emphasizes the importance of the subjective meanings and of social, political and symbolic action in the process through which humans construct and reconstruct their reality. The epistemology of this work is interpretive as it adopts the position that knowledge of reality is a social construction by human actors [See Remenyi et al, 1998].

## Structure

First a conceptual framework of the role of risk, expectations and market change in the process of internationalization as well how companies manage them is presented. A summary of the internationalization process of the seven companies is presented followed by a brief case illustration of one firm. Finally, implications are drawn based on the lessons from all the interviews described in the foregoing.

## Conceptual Framework

### Risk, Expectations and Gradual Commitment in Internationalization

Internationalization is defined as a process of gradually increasing international involvement by the firm. The Uppsala Internationalization Model assumes risk avoidance and caution in the foreign market operations of firms. Firms internationalize more as their expectations of specific markets outweigh their risk perceptions. Furthermore, firms will start their international operations with modes like exports that require less resource commitment and that provide greater control and only much later establish subsidiaries and production facilities in the foreign market [Johansson and Vahlne, 1977; Johanson and Vahlne, 1990]. Calof and Beamish [1995] see internationalization as a process of adapting the firm's operations (i.e structure, strategy<sup>1</sup> and resources) to the international environment. The core elements in this definition lie in its economic and behavioural components. It also implies that internationalisation is a dynamic and evolutionary process [Covillo and McAuley 1999]. One part of the internationalisation consists of the firm's foreign business operations. It refers to international market development from the point at which a company made the decision to operate outside the domestic market. Furthermore, it refers to the growth of business, in terms of growing sales volume, growing turnover and growing profit in the foreign-market entered [Vincze 2004: 52]. This growth leads to increased complexity that may be associated with the adaptation process.

Table 1 classifies the internationalization modes on the basis of the extent of commitment to the foreign market they require. The most committed operation mode is foreign direct investment. The IMF [2003: 5] defines Foreign Direct Investments [FDI] as investment that involves "*a lasting interest in an enterprise resident in another country*". FDI includes not only the flow of new funds from abroad but also the reinvested earnings of the multinationals already doing business in the country and the sale of non-financial assets to the foreign subsidiary by the parent company. In this study FDI does not only relate to capital flows, as the financial markets around the globe are well connected. A subsidiary may raise funds locally whilst the headquarters may only provide management and

technical expertise. The important thing is that the foreign company commits itself much more to the destination market and has an interest in developing the market to its benefit.

TABLE 1: INTERNATIONALIZATION MODES

Level of Commitment	Low Commitment	Moderate Commitment. (Contractual Modes)	High Commitment	Full Commitment
Operation Mode	Export	Licensing, franchising, management contracts, project marketing	Joint venture, strategic alliance, formalized networks	Fully-owned subsidiary

Fig. 1 shows that the level of internationalization is measured in this paper by the extent of foreign business operations, which is due to the foreign business strategy of the company. The foreign business strategy is influenced by the perceived risks and expectations held for a particular market. The international business environment as well as the destination country environment influence expectations and perceived risks. Changes in expectations and perceived risks affect the strategy and the foreign business operations of firms. Events are important variables that affect the international and destination country environments. Strategy refers in this paper to the principal policies, goals and the decisions of the choice of products, operation modes and geographical markets a company subscribes to [Hirvensalo, 1996:27].

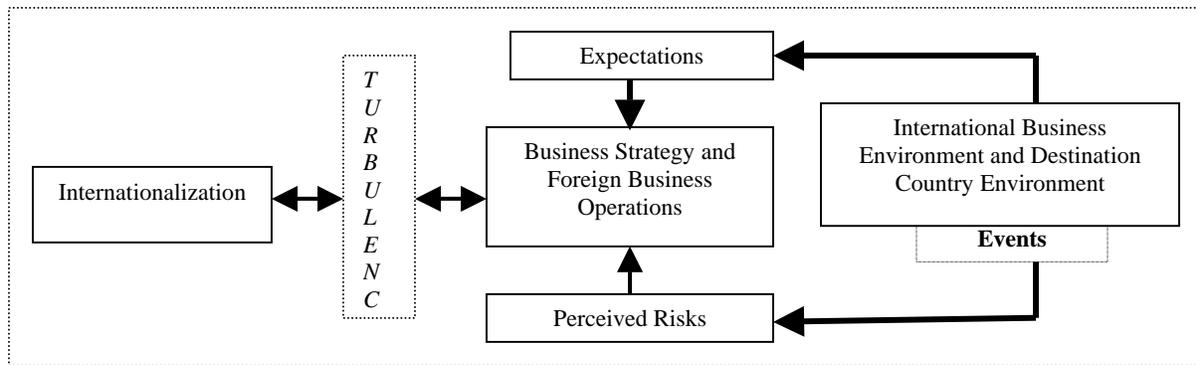


FIG. 1: A MODEL OF FACTORS INFLUENCING INTERNATIONALIZATION.

#### Events Embedded in Time in Foreign Market Expansion

In the history of each nation, there have been events or happenings that could be directly related to the foreign market expansion of foreign firms. In this case an event is defined as

*“an outcome of acts or changes caused either by human beings, political systems or by nature within or outside the business environment”* [Törnroos & Hedaa, 1997].

Events will have a meaning in the minds of the actors once noticed by them. Events could be caused by or exacerbated by politicians, political parties, labour organisations, institutions, and international bodies. From the business point of view, the outcome of events may help the managers to assess whether to enter a market, increase their business activities or to reduce them or even withdraw (in an extreme case) given the signals/stimulus and interpretation that follow an event.

For foreign market entry and expansion in developing, emerging or transitional markets, there are different socio-political and business events that occur at different periods of time within a country or between different market actors who have “histories, surroundings and values as well as future expectations and goals” [Törnroos & Hedaa, 1997]. The period of time and events connected to that specific time might dictate the types of operation

strategies to adopt during the market expansion. Looking at the foreign market expansion process, the interplay of time and events may act as a trigger for the corporate internationalization decision.

In an African context the general perception of risk and turbulence of the African market is the background for the low level of FDI in Africa. The perception of risk and low expectations is very dynamic and reacts to a myriad of local and international events. The United Nations Conference on Trade and Development (UNCTAD) recently stated that the recent conflicts in Sudan and the Ivory Coast were scaring investors from Africa as a whole [news.bbc.co.uk, accessed 26.11.04]. In the case of South Africa, the end of apartheid was a massive change that started a new period in which the country became attractive for international firms which may, however, consider the situation turbulent due to the continuing great social, economic and political changes.

In this paper expectations and risks are perceptions of the interviewees. The authors do not make any attempt to measure these factors in any objective way by themselves. However, the events that cause changes in the international business environment as well as policy actions and other events of the destination country are studied by the authors in addition to the narrations of the interviewees.

## **Networks in Internationalization Strategy**

Business networks are here defined broadly to include both formalized and non-formalized cooperative relationships including loose cooperative relationships, strategic alliances, joint ventures and acquisitions. According to the IMP Network Theory, internationalization is no longer solely influenced by internal variables of the focal firm, but its network relationships to external entities and also by external market variables [Johanson and Mattsson, 1995; Axelsson and Johanson, 1992]. It is argued that interaction in networks can also enhance the foreign market knowledge of the firm, which in turn determines the consequent decision to commit resources to a certain market. Thus, business takes place in a network setting where different business actors are linked to each other through direct or indirect relationships. The crux of the approach is that companies can internationalize by using their network relationships, and by establishing new relationships. They will exchange resources with others to receive complementary resources. Therefore, in markets like Africa that they consider to have a high level of risk, or where they have inadequate knowledge, but that have good expectations, they can achieve successful market entry by cooperating with other parties who provide complementary resources [Owusu, 2002].

## **Summary**

In this paper a perception of risk is seen as implying a low level of positive expectations for the market. It is assumed in line with the Uppsala Internationalization Model that a perception of a high level of risk reduces the level of internationalization. However, changes in the market environment in terms of positive local or international policy or environmental changes will lead to reactions by international companies who will commit more to the market. The policy or environmental changes may be defined as critical events. Companies entering or expanding their operations may use networks with local or international firms to manage the situation.

## **The Study Context**

South Africa is rich in natural resources. The discovery of diamonds in 1867 and gold in 1886 constituted the beginning of a century of growth, at a pace that was among the fastest in the world. This process was fuelled by a combination of a high rate of capital formation and low wages for a majority of the population. After World War II, the manufacturing sector gradually became the most important contributor to GDP. Unlike its counterparts in the rest of Africa, South Africa's manufacturing industry is the largest sector of the national economy. However, the country was considered a pariah state due to its apartheid policies and economic sanctions imposed on it scared self-respecting companies from establishing there. Exports became the only possibility for many foreign companies. At the same time the sanctions forced the apartheid economy to be self-reliant. Therefore, after the lifting of sanctions

the apartheid economy was not battered but resilient, especially in the mining sector. The economy and the population of the country have grown since the end of apartheid [[www.info.gov.za/aboutsa/economy.htm](http://www.info.gov.za/aboutsa/economy.htm), Accessed 17.12.2004]. At the same time, the cessation of sanctions against South Africa in the 1990s exposed local companies to international competition. This happened through privatisation of state firms and through the opening of the markets to foreign competition and the rise of new ownership in some cases [[www.info.gov.za/aboutsa/economy.htm](http://www.info.gov.za/aboutsa/economy.htm), Accessed 17.12.2004]. Competition on the local market is strong and the customers for industrial products are becoming more and more global players. This is putting pressure on both local and foreign suppliers to compete with high quality, low prices and other means as in the western markets. According to our interviewees, the unpredictability of the institutional changes, brain drain, inflation and exchange rate fluctuations combined with latent socio-political problems in connection with newly-heightened expectations, unemployment, high crime rates in some areas and the HIV epidemic are some factors that reflect some problems in the country's business environment (Source: interviews with managers done for this study). An important fact for the mutual economic development between South Africa and the rest of the continent is that currently South African firms are among the most important investors in the rest of sub-Saharan Africa. 15% of South Africa's exports go to the rest of Africa against 4.2% of imports giving the former a large balance of trade which is the largest of all regions.

## **Data Collection**

The empirical data has been collected through qualitative research undertaken with seven companies in Finland and South Africa. A total of fourteen interviews of about 1-2 hours each were made with managers and other relevant people in South Africa and in Finland during two separate time periods in 2002 and 2004. In addition to interviews, secondary material from the companies and desk research have been used. Seven companies were studied and they can be classified into 4 different groups: mining, pulp and paper, process technologies, and project consulting. The data has been interpreted and analysed through a multiple-step qualitative process of data reduction, data display and conclusion-drawing by the authors [see Miles and Huberman, 1994; Ghauri, 2004].

### **Case Analysis**

Based on the aims and conceptual framework outlined above, the case data for all the seven companies is summarized in Table 2 and discussed in this section.

All the companies are in the business-to-business field. Metso Minerals, Outokumpu and Tamrock-Sandvik deal in crushing equipment and other processes for the mining industry. Larox deals in pressure filters which are used in the mining, food and pharmaceutical industries. Metso Automation deals in systems for the pulp and paper, and other process industries. Raflatac is specialized in making labels for several industries. Jaakko Pöyry is a consultant in the pulp and paper, forestry and other industries. In addition, all the companies provide services related to their products and prefer to be on the ground and establish close relationships with their customers. All of them had been interested in the South African market but only exported to it through agents before the end of apartheid in 1990. The interviewees agreed that the most significant changes in the South African context have been the political move from apartheid to majority rule. President Mandela going out of prison, his call to put the past behind, and the lifting of all United Nations sanctions were important events. They became confident that their investments would be profitable. Their trust in the economy increased further after the democratic elections in 1994. However, the exact type of commitment and investment strategy pursued was dependent on the type of industry of the firm and its general internationalization strategy.

TABLE 2: A SUMMARY OF THE INTERNATIONALIZATION PROCESS OF THE SEVEN INTERVIEWED COMPANIES.

Company	Metso Minerals	Outokumpu	Tamrock –Sandvik	Metso Automation	Larox	Raflatac	Jaakko Pöyry
Type of operation before end of apartheid (before 1990)	Exports through an agent. Subsidiary Nordberg, purchased just before end of apartheid, was present in RSA.	Exports through agents before 1990	Tamrock had 4-5 agents in RSA	Exports through agents before 1990.	Exports through agents before 1990	Exports through agents before 1990	Installation and servicing of paper mills. Exclusivity with the biggest customer from 1970 until 1990.
Types of changes influencing their operations: RSA or international event or policy?	End of apartheid Cessation of UN-sanctions New government guarantees foreign investments Liberalization of the market Expanding demand.						
Direction of changes in expectations and risks	Expectation towards positive development and low risks Mainly positive expectations since 1990.						
Type of changes in strategy as a result of changes	Decided to increase commitment in RSA RSA seen as base to expand to the rest of Africa						
New operation modes: moving to higher commitment modes?	The SA operation was bought back. Rauma acquired Svedala in 2001 Assembly, sales, marketing distribution and servicing. Local production. Acquisition of one foundry to control ownership and minimize risks. Investment in R&D in RSA	Moved from exporting from Finland to assembling, sales, marketing, distribution and manufacturing in the RSA. Agreement with subcontractors Cooperative arrangements with some competitors Established a wholly owned subsidiary after 1990	Holy OS & 72 stocks branches in Africa. Organic growth Assembling and manufacturing. Project Marketing. Investment in R&D. Investment with 50-50 equity loan participation. Customer driven strategies	Wholly-owned subsidiary and spare parts workshops, assembling and manufacturing. Project marketing. Customer relationship and service based strategy. Intense partnership with customers	Wholly owned subsidiary, with workshops. Marketing, sales distribution and servicing. Project marketing, Join ventures on some projects with locals firms Branch office to start doing tests and product demonstrations to build trust	Sales, distribution and some manufacturing. Acquired a small local manufacturing plant and restructured it Established own subsidiary in 1999. Greenfield investment. Customer driven strategies	Building up local capabilities to reduce the involvement of expensive expatriates. Schooling and training programs. Increased network of offices in the region. Used RSA sub contractors. Mostly the heavy engineering side came from Finland Own RSA company 1990. Agreement to serve other customers as well
Level of perceived current uncertainty and risk.	Low	Low	Low	Low	Low	Low	Low

All the companies moved relatively fast to expand their commitment to the RSA market after the end of apartheid. Metso Minerals, Outokumpu and Tamrock-Sandvik followed almost similar paths. They invested relatively fast in alliances or fully -owned subsidiaries for sales, servicing and production operations in the RSA market. Due to the nature of their industry and the relative size of the RSA market, Larox, Metso Automation and Raflatac established own subsidiaries dealing mostly with marketing and service operations. For Larox and Metso, the core products are still made in Finland and marketed by their subsidiaries in RSA. Recently, Raflatac has established a small R&D laboratory in RSA and has started to supply the market from its production unit in Malaysia, which the company considers advantageous in both distance and cost benefits compared with Finland. As a consultant and project marketer, Jaakko Pöyry's investment in a country usually varies from an upgraded project office during the period of a project contract to a resident representative or market observation when projects have been completed. Therefore, its investment differs from the other six companies, being only in offices and computers as well as staff training. It faced a lack of local skills in the pulp and paper industry and was forced to depend on Finnish expatriates. This was expensive and the company later opted for a strategy of training local engineers and participation in sponsoring technical training in forestry management and pulp and paper technology.

#### **An Illustrative Case: Metso Mineral's Market Development in South Africa**

Metso Corporation is a multinational engineering company that designs, develops and produces systems, automation solutions, machinery and equipment for process industries. One of the corporation's four major divisions, Metso Minerals, covers the production and marketing of rock and mineral processing solutions for quarries, mines and civil engineering contractors. The segment also covers the cover compaction and paving as well as metal recycling equipments. Metso Minerals' specialty is the supply of complete crushing plants.

As a country with a large mining industry South Africa had always been a potential market for Rauma (which later changed name to Metso in 1999 after several acquisitions). However, the period of apartheid and the sanctions later imposed meant that Rauma could only export some mining equipment and machinery to the country's mines. Rauma acquired Nordberg and Svedala during the period of sanctions and sold the South African portion of business of the acquired Nordberg to its employees with a negotiated arrangement to buy it back later once the sanctions were lifted. As soon as United Nations sanctions ended, the company decided to buy back the South African operation and to establish a subsidiary in the country. At that time, Nordberg's equipment held the Number One position in South Africa. The market was also seen as a springboard for the wider African market, which is presently mainly served from there.

The company considers the internal South African market to be advanced and competitive. The customers (both local and international mining giants) know exactly what products they are looking for and are therefore knowledgeable negotiators. They are often financially solid companies who pose very little financial risks. Competition is strong and comes from both indigenous companies and foreign suppliers based in the country. Crushers being very expensive equipment, customers want to be sure they get dependable and durable products. The interviewee's view of the market and the commitment of his company could be summarized in the statement below: " South Africa as a market place is one of the best markets we are serving. There is a high level of knowledge of metallurgy and all linkage skills and services are available - the steel foundry, bronze foundry, etc. Therefore we have a ware parts supplier factory, so anything that our equipment need are made and served in the country.

The local factory has a role as a supplier of global components and components to other assembly lines in the group and to service the local and African market.

#### **Political and Economic Challenges, Risks and Problem Associated with Operation in the RSA**

According to all the interviewees, the main challenges come from trusting that investors would get a good return on their investment and especially that there is no risk for nationalization. Further economic and business challenges are the limited number of new customers; the large number of competitors; the exchange rate fluctuations and the inflation rate that tend to make products more expensive; the lack of skills especially due to the brain drain from the country; the lack of training of the majority of the population; government policies with regard to labour relations; the reserve bank requirements which may make it sometimes difficult to transfer money out of the country to other foreign suppliers; reverse engineering (pirate copies of products); and parallel importing. With regard to labour relations and the requirement for employing the formerly disadvantaged groups, many of the interviewees considered this a cause of difficulties for management as they believe that there is currently an inadequate number of

skilled people available within the former disadvantaged groups (like the black majority). The other challenges derive from the requirement by the government to use local contractors owned by the former disadvantaged groups. The giant customers, like the Anglo-Platinum require their suppliers manufacturing in the RSA to show and to produce plans of how they are using companies owned by the formerly disadvantaged groups. This may prove problematic for high tech companies like most of the Finnish firms who would feel compelled to use “inappropriate partners”. They believe that the quality requirement may suffer. In addition, most of the interviewees cited crime and HIV as social problems. On the general political level the interviewees considered it crucial that the ruling party and the president are trusted well enough.

## **Future Prospects**

According to the interviewees, there is a great deal of investment opportunities and there is a wide range, especially if one were to find partners from the former disadvantaged groups from within the country. According to them RSA is a growing economy with a lot of raw materials and mining related industries, and a big business capacity to fill to raise the standards of its “third world” sub-economy. Also the consumer market is growing because of the general improvement of the black population economically and socially, so consumer products are also a growing market. Regarding further investments, some interviewees cited ambiguity in the interpretation of some legislation as holding back investments. The biggest problem they faced in 2004 was the strengthening of the currency against the weakening US dollars. That put most of their projects on hold.

## **Implications and Conclusion**

Positive political, economic and market changes have moved companies into greater involvement in the South African market. The present study shows that companies will respond positively to changes that reduce the level of risk perception. Companies see great potential in the country’s market, as well as problems that are due to the characteristics of the economy. They will continue to react positively, but are, on the other hand, apprehensive and watching developments especially regarding the regulatory environment and the effect of the “third world” or “traditional” sector. Furthermore, RSA is seen as a beachhead for the remaining African market. Therefore, positive developments in the neighbouring countries could positively influence the level of investment of many foreign firms. However, UNCTAD’s [1999] study showed that the perceptions of Africa held by the international business community is much worse than the real situation on the continent. This makes foreign business leaders more pessimistic of Africa than other parts of the world with similar problems. The present authors believe that even though business leaders are getting better informed and are, therefore, getting more objective, the general picture of Africa portrayed by the Western mass media may make it difficult to convince shareholders. As the World Bank [2002] found, investments in Africa as a whole went mainly to high-return projects due to the perception of risk and low positive expectations. Therefore the rather positive result of this study may not allow for making a positive general conclusion for the whole of Africa.

The present study looks only at the behaviour of seven different Finnish firms in a few business-to-business fields. It is therefore recommended that the present study be replicated for different industries in order to analyse characteristics of each industry. The study could also be replicated for other African countries. It would also be of interest to compare the investment behaviour and motivations of non-Finnish firms in RSA. The other possibility would be to use the same approach to investigate behaviour of Finnish firms going to different emerging markets outside Africa.

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### **End Notes**

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<sup>i</sup> Chandler (1962,13) defines strategy as ” the determination of the basic long-term goals and objectives of enterprise, and the adoption of course of action and the allocation of resources necessary for carrying out these goals”

# Multi-Criteria Decision Making for Carrying Capacity Analysis Problem: A Case Study on China and Sub-Saharan Africa

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## Abstract

This research studies global and regional carrying capacities using system techniques. Food production and consumption, water supply and demand, energy, soil, and land are important factors determining a region's carrying capacity. Focusing on food and water issues, we use scenario analysis and multi-objective optimization with dynamic constraints to gain a better understanding of potential problems in self-sustainability and to propose possible policy solutions. Mathematical models are used to simulate population, economic conditions, agriculture, water supply and demand, carrying capacity and world food trade; scenarios are developed and multi-criteria goal programming is used to aid decision making. Our case study involves the food security relationship between China and Sub-Saharan Africa. The results show quantifiable relationship between policy and sustainability of each region. There is a quantitative impact of food demand pattern and production systems of China on Sub-Saharan Africa sustainability. Suggested policies are also developed to solve the present problem.

## Introduction

There were 840 million undernourished people in the world during 1990-1992. This number in the last estimates in 1998-2000 has only reduced by 20 million to 820 million. The reduction has not been only small but also uneven throughout the world. Between those period, that number in China has been sharply fell by 74 million while it increased by over 90 million in almost all other developing countries. [23]

Poverty and the imbalance of food production and demand among the regions of the world cause the food insecurity within certain regions, such as Sub-Saharan Africa. The number of food-insecure and malnourished people in most countries in this region has been increasing in recent years. This is a result of continuously high population growth rates, low agricultural productivity, environmental degradation, AIDS epidemics and weak science and technology infrastructure in the region.

China, located half way across the globe, is another country suffered with insufficient arable land, poorly distributed water resource across the country and overly high population. The country managed to reduce the size of malnourished people recently. However, data show that it relies on importing food to sustain itself. [5] Its import demand and capacity due to the region's economic growth may affect the world food stocks and prices. If there is a relationship between the two regions or any other regions through the world food trades, Sub-Saharan Africa's food-insecure number may be affected by heavily import demand of China. Since the region obviously lacks the ability to support itself in terms of food production and the available income to import enough food for its rapid growing population.

## Methodology and Modeling

The research focuses on using system techniques on global and regional carrying capacities. Mathematical models in a state space form are used to simulate the important factors to carrying capacities such as projected population, economic condition, agriculture, water resource supply and demand, and world food trade. A general state space form of the model can be represented as follows.

$$x(t + 1) = g(x(t), u(t), p(t), t)$$

$$y(t) = h(x(t), u(t), p(t), t), \quad t = 0, 1, \dots, N$$

given the initial state  $x(0)$ ,  $u(0)$ , and parameter  $p(t)$ ,  $\forall t \in [0, 1, \dots, N]$ ,

where

$x(t)$  is the state vector at the  $t^{\text{th}}$  indexed time period,  $x \in \mathfrak{R}^n \times \mathfrak{R}^R$ ,

$y(t)$  is the decision vector at the  $t^{\text{th}}$  indexed time period,  $u \in \mathfrak{R}^m \times R$ ,

$N$  is the number of the stages, and

$R$  is the number of regions.

More details can be found in [12] for the models on population, economy, food, water, and carrying capacity based on the state space form. The models need state variables and numerical values of the initial conditions and input parameters which can be seen from [12] and [25]. For accuracy purposes, some updates of those parameters will be needed. The relationships of models within a region are summarized in Fig. 2.1 whereas the relationship between regions of the world is shown in Fig. 2.2.

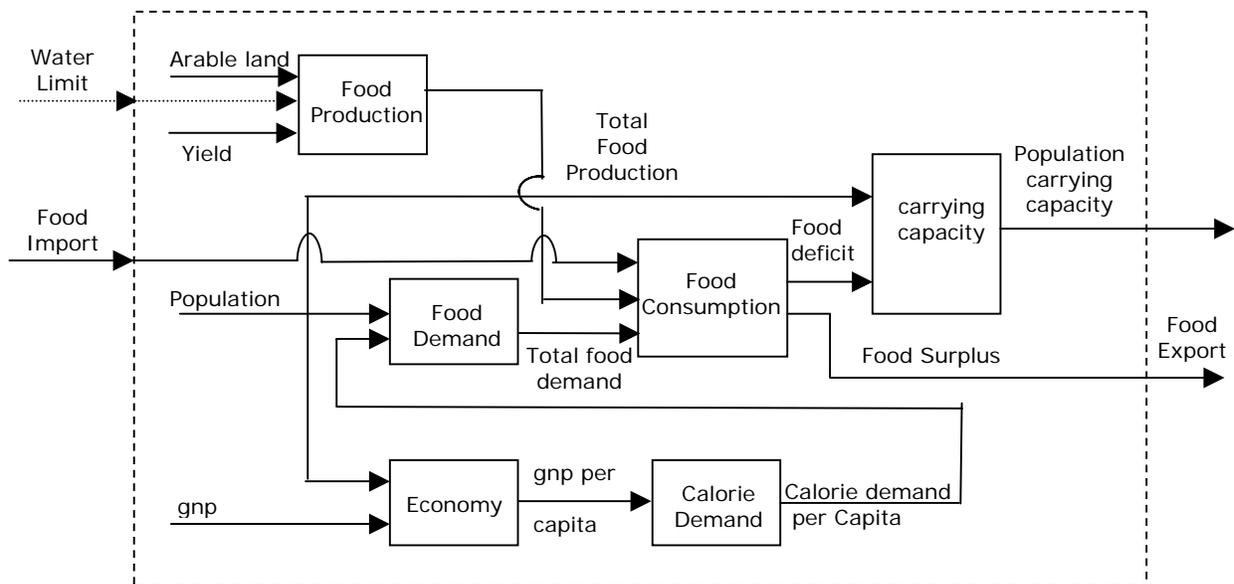


FIG. 2.1: REGIONAL MODEL DIAGRAM

[12] and [25] analyze a number of interesting possible outcomes to understand the problem better in many aspects by using the “what if” analyses which are done by creating the scenarios and conducting the scenario analyses. Goal programming optimization models are then developed to minimize food deficit of all regions since the food deficit is directly related to the region’s carrying capacity. We used several approaches to solve the goal programming problem. Resulting in this paper, the preemptive goal programming method is used. The goals will be given in the next section.

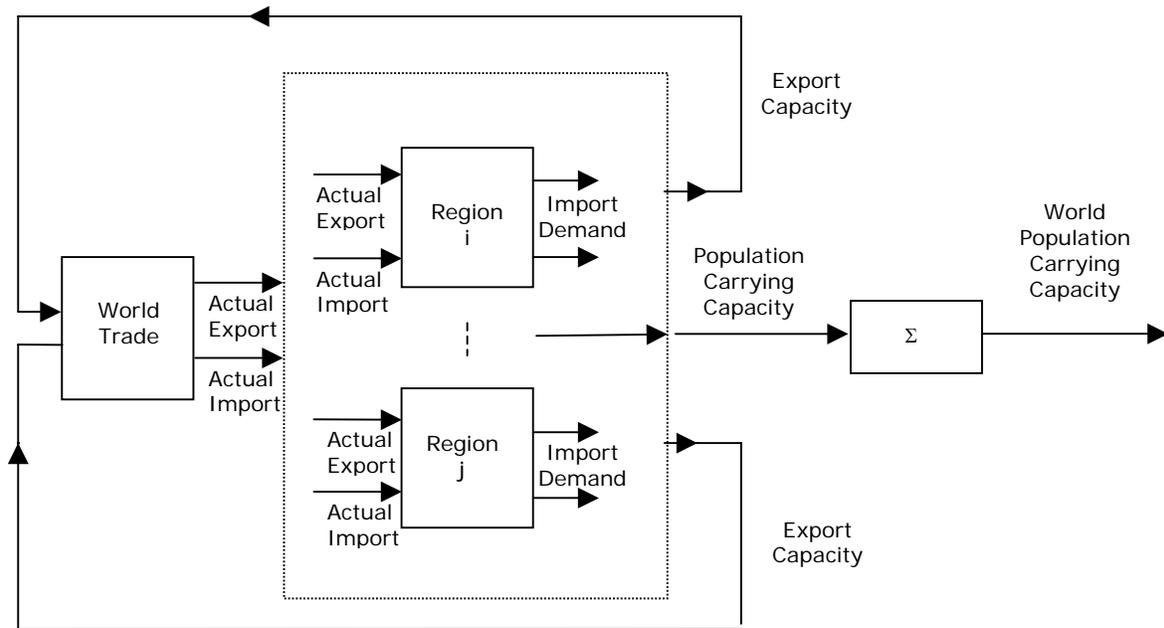


FIG. 2.2: REGIONAL RELATIONSHIP DIAGRAM

The generalization of optimization model is shown in the left side of Fig. 2.3 (P1) where the descriptions of the variables are defined as follows.

- $f_{i,t}$  be the food deficit of region  $i$  at period  $t$  ( objective function),
- $f_{i,t}^g$  be the goal region  $i$  at period  $t$ ,
- $x_{i,t}$  be the food import of region  $i$  at period  $t$ ,
- $k_{i,t}$  be the total food stock of region  $i$  at period  $t$ ,
- $l_{i,t}$  be the food stock target of region  $i$  at period  $t$ ,
- $m_{i,t}$  be the total food demand for region  $i$  at period  $t$ ,
- $n_{i,t}$  be the total food consumption for region  $i$  at period  $t$ ,
- $p_{i,t}$  be the total food production for region  $i$  at period  $t$ ,
- $q_{i,t}$  be the total food import for region  $i$  at period  $t$ ,
- $U_t$  be the world export capacity,
- $D_{i,t}$  be the food import demand of region  $i$  at period  $t$ ,
- $k$  be the food stock target efficiency,
- $R$  be the total number of regions, and
- $t$  be the period (year).

First attempt to solve the NLP directly using FMINCON in MATLAB toolbox failed since nonlinear optimizer in MATLAB is unstable. Since the problem is relatively large but the only nonlinear constraints are complementary slackness equations, we can handle the nonlinear part by using

$$n_{i,t} \leq s_{i,t} + q_{i,t}$$

$$n_{i,t} \leq m_{i,t}$$

and adding a term to the objective function to maximize  $n_i(t)$  so as to ensure that at least one of the above constraints is active. For example,  $-w_i n_i(t)$  is added to the objective function where  $w_i$  is a proper weight that will drive  $n_i(t)$  toward its upper bound defined by the above two constraints. The conversion of “max” constraints can be done similarly. The summary of the modification can be shown on the right side of Fig. 2.3 (P2).

The LP relaxation problem is theoretically easier to solve than the original NLP problem especially when the number of variables and constraints are numerous. The most difficult part for the LP relaxation problem is to determine the value of  $w_i$ . Generally, it is almost impossible to search for the proper value. Moreover, the value of  $w_i$  is sensitive to the input parameters and the initial conditions hence there is the need of human-machine interactions every time those figures change.

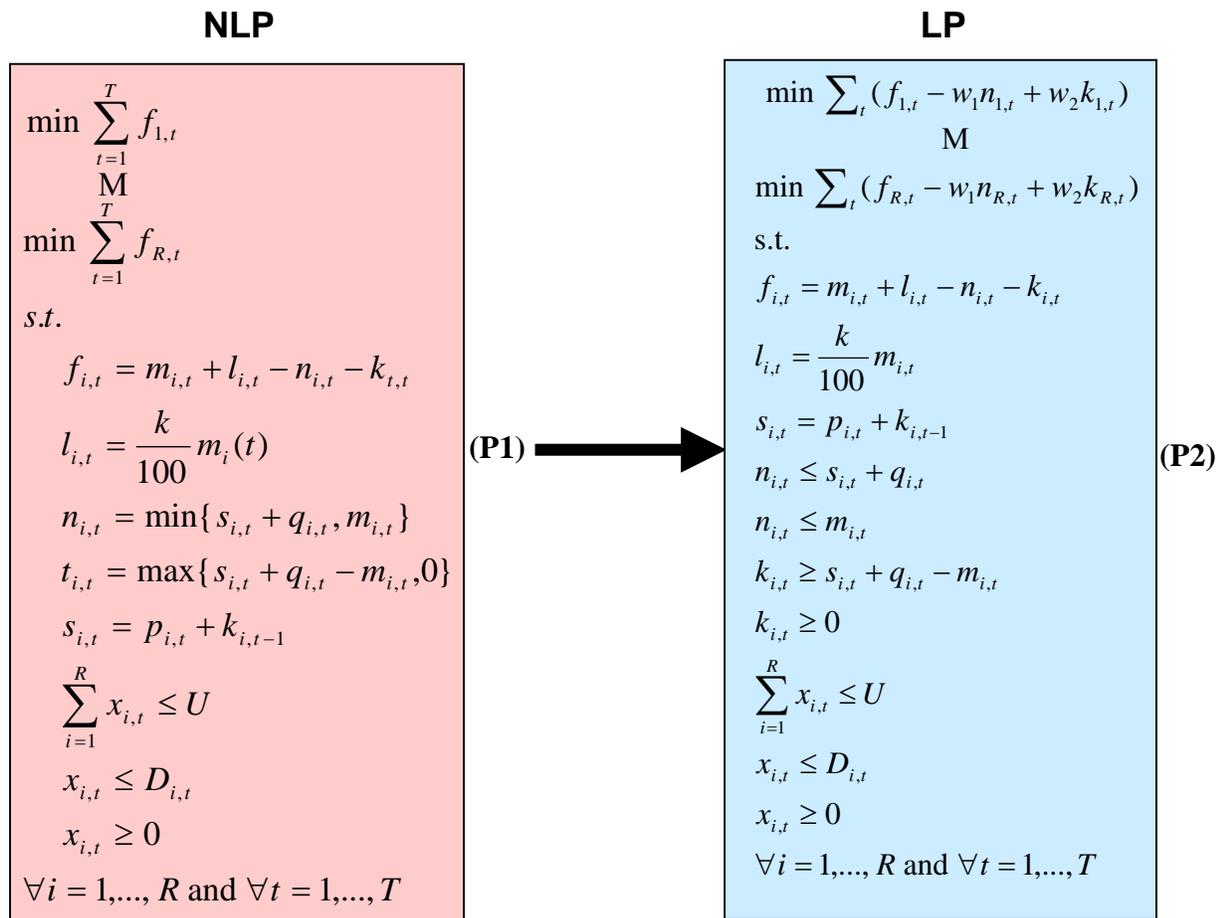


FIG. 2.3: OPTIMIZATION MODEL AND ITS LP RELAXATION

## Scenarios and Goals

We have to create different scenarios to analyze interesting outcomes to understand the problems better in many aspects. The first set of the scenarios are adopted to see the effects on food production and demand inside the regions. Note that the period of studying is 50 years.

- **Case 1** China BaU. China's meat sector demand and total feed grain follow the current trend until they reach developed countries' level then stay at that level through out the period.
- **Case 2** China Developed. China's meat sector demand and total feed grain follow the trend until they reach Developed countries' level at the end of the period.
- **Case 3** China Pessimistic. China's meat sector demand and total feed grain stay constant through out the period.

Since, we assume the relationship between the regions' grain via world food trade, the second set of the scenarios are conducted as follows.

- **Category A** Proportional Distribution. Global grain export capacity proportionally distributed between grain deficit countries
- **Category B** China First Priority. China has access to global export capacity first then other grain deficit countries will get equal share
- **Category C** Sub-Saharan Africa Least Priority.

As for the goal, the actual goal has to be meaningfully set by a policy maker of the country. For observation purpose, we first attempt to set the goal of each country's food deficit at zero. Since the food deficit of each region in the scenario analysis [12] is higher than zero, this is obviously an unachievable goal for some of the period (otherwise we will not have a food deficit). Hence, the weights for underachievement is then set to be zero since we actually would like to see food deficit being less than the goal, and therefore there is no need to minimize underachievement. Weight for overachievement of China's is higher than others for the second sub-scenario where China has first priority. Likewise, in the last sub-scenario where Sub-Saharan Africa has the least priority, its weight is lower than those of other regions. Using FMINCON in the optimization toolbox in MATLAB, we write a code to solve this goal programming.

The Goal of having the food deficit of each region brought down to zero ( $f_{i,t}^g = 0$ ) is not achievable so we attempt to solve the goal programming having the goal (food deficit) in each region according to the 1997 World Food Summit [23] to reduce the world hunger in half at the year 2015. We add the goal of the year 2050 to be half of that in the year 2015 and assume the food deficit to be linearly related to the number of underfed in a region. Thus, for each region  $i$ , and period  $t$ , the goals can be written as,

$$f_{i,t}^g = \frac{85-t}{70} f_{i,15}, \quad \forall i, \quad 16 < t < 50$$

$$f_{i,t}^g = \frac{30-t}{30} f_{i,0}, \quad \forall i, \quad 1 < t < 15$$

where

$$f_{i,0}^t \text{ is given for all } i$$

## Results and Discussion

To give better decision making information to the policy maker, we also run the BaU scenario of China's first priority with 10 percent increase in China's food production, and 10 percent decrease in China's food demand. Fig. 4.1 shows the food deficit of China and its goal. We can see that even with the additional 10 percent of food production and the 10 percent reduction in food demand, China's food deficit is still 800 million tons over the goal. Consider the expected Chinese grain demand per capita in 2050 of over 1 ton per capita, almost half of China's 2050 population will be starved. If China's government tries to manage the farm feed livestock to remain at the current

percentage, we can see a dramatic improvement in the goal attainment attempt. If nothing else is done, the world's food production will finally keep up with China's food demand in the year 2047. In the case that China increases its food production by 10 percent, it will be on the same track as the goal except during the years 2009-2042 when the total food demand is still higher than the total food production. If the food production cannot be increased but food demand can be reduced by 10 percent, its food deficit will be lower, and hence closer to the goal. It is only during period 2016-2037 that the food deficit will not meet the goal. If the Chinese Government can keep the farm feed percentage stable, reduce the food demand by 10 percent and add 10 percent to the food production, the goal of reducing half of the hungry in 2015 and another half in 2050 will be met.

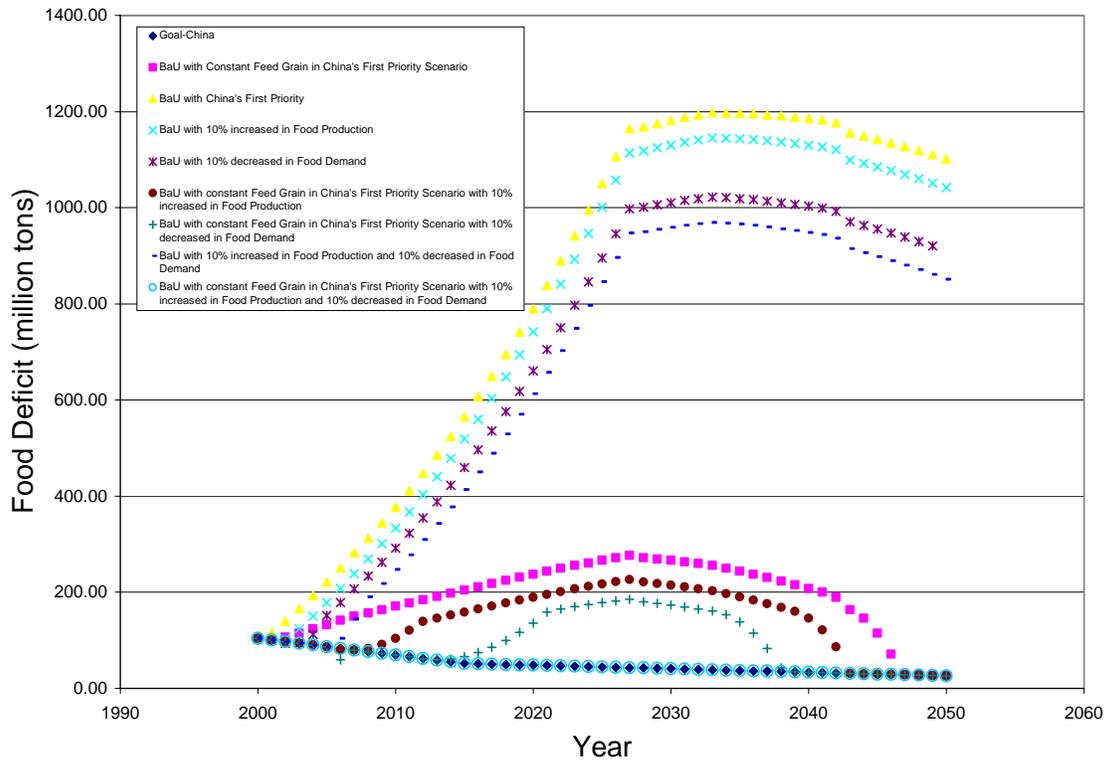


FIG. 4.1: COMPARISON BETWEEN GOAL AND CHINA'S FOOD DEFICITS IN SEVERAL POLICY UNDER BAU SCENARIO WITH CHINA FIRST PRIORITY TO EXPORT GRAIN

Fig. 4.2 shows Sub-Saharan Africa's food deficits and goals in China's BaU Growth Scenarios and China's first priority to world's export grain. The region suffers with about 196 million hungry people even with a relatively small amount of food deficit, a result of low food demand per capita. The region's number of undernourished will increase and will not be affected by China's policies other than the feed grain management policy. If the region cannot increase its own food production, the number of hungry people will continue to grow unless all China's proposed policies are fully operational. In that case, the number of underfed people will be reduced according to goal until the year 2008 where its undernourished population starts to climb to roughly 330 million (which is equivalent around 78 million tons of the food deficit) in 2027. This number will start to decline in the year 2028 when the proportion of China's animal product demand hits the developed countries' level. Nevertheless, the region's food deficit will not come back to the current level until the year 2038 and will not meet the goal (of ~\$60 million) until 2043. It can stay on track of the goal for only 4 years and the region's food deficit will be higher again until the

end of the analysis year. What the region really needs is not the impact of other region's good policies but a good policy of its own to take care of its chronic problems.

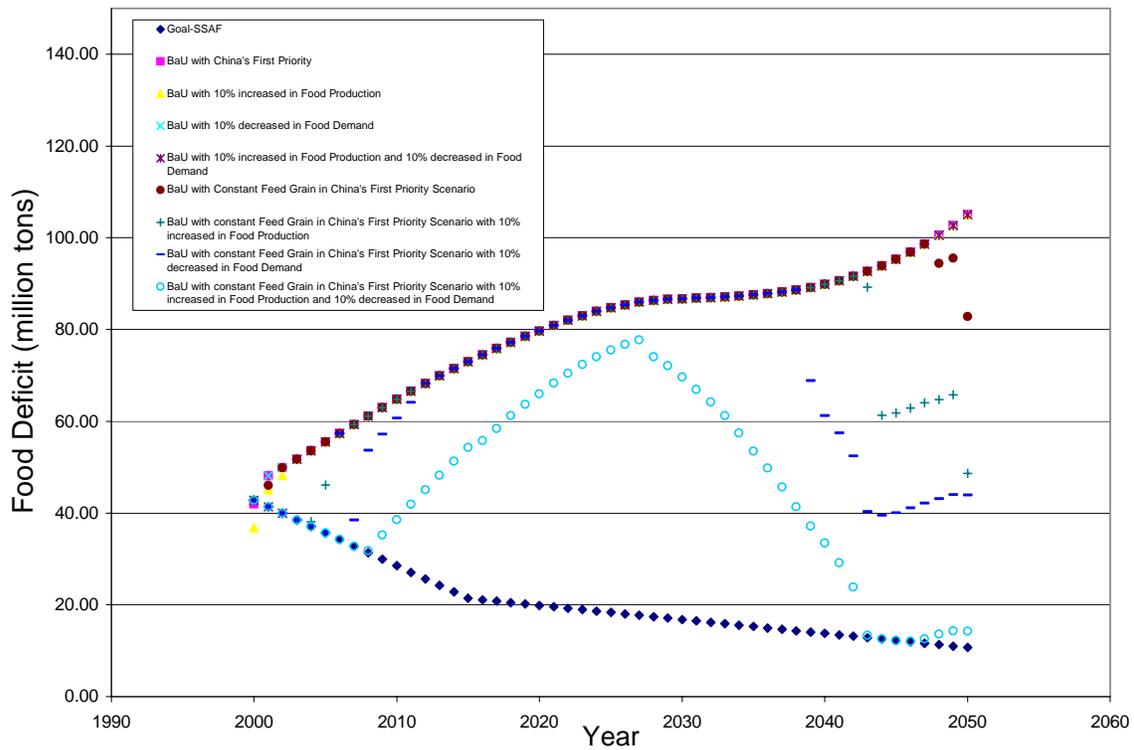


FIG. 4.2: COMPARISON BETWEEN GOAL AND SUB-SAHARAN'S FOOD DEFICITS IN SEVERAL POLICY UNDER BAU SCENARIO WITH CHINA FIRST PRIORITY TO EXPORT GRAIN

### Conclusion and Policy Suggestion

Rising demand of food and declining food productions are two main factors of China's ability to sustain itself, the question that has been the focus of investigations during the past decade. Both factors results from the combination of extremely high population, limited and declining amount of cultivated land, stabilizing yield growth rate, intensive water shortage, and blooming economy giving rise to diet changes, among others. We can see from Figure 4.1 that feed grain percentage may have the biggest impact of China's sustainability. Hence, if China remains the feed grain percentage and reduces 10 percent of its current trend food demand, China will be able to reduce the number of undernourished people in half (or 60 million people) in the next decade. If the increase only 10 percent of its food production is met, China will be able to reduce another half (or 30 million people) of that number. The two figures in the last section also show the effect of China's policies on Sub-Saharan Africa's sustainability. However, even with China's best policy, that number of Sub-Saharan Africa will not be reduced but instead will be doubled to approximately 330 million people in the next 20 years. This is the result of the over highly population growth in the region as well as the small food production and poverty due to AIDS epidemics and civil wars.

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# **Human Resource Management in the Malaysian Malay Businesses: The Knowledge Management Perspectives**

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## **Abstract**

This paper aims to present some initial findings on the practices of human resource management (HRM) in the Malaysian Malay businesses. The Malays form 51 percent of the major ethnic groups in modern Malaysia with agrarian background. Malays are basically Muslims by religion and generally are perceived as staunch practitioners of the Islamic faith both in rituals as well as worldly affairs. As business people, they are still new and are still learning. 100 Malay entrepreneurs were surveyed. It was found that generally the entrepreneurs had employed a brand of HRM and business management, which they believed were in line with the Islamic principles. To them Islam encourages the seeking of knowledge which contributes to the welfare of human beings. Based on this perception, it can be said that some modern Malaysian Malays had made conscious efforts to manage their knowledge of people management as to them, managing people is managing business.

## **Introduction**

In modern Malaysia, the three dominant ethnic groups are the Malays, the Chinese and the Indians. Prior to 1969, the Malays were basically small time farmers and fishermen, the Chinese were mainly business owners and entrepreneurs while the Indians were mainly labourers in rubber estates. In terms of origins, the Malays were also the earlier settlers of South-east Asia including Malaysia. Consequently, the Malays opened up various states or regions in Malaysia and established ruling clans or sultanates to rule the land (The Chinese and Indians were brought into Malaysia from China and India consecutively by the British in the 19<sup>th</sup> and 20<sup>th</sup> centuries when they were ruling Malaysia as part of their colony). The descendants of these sultanates are still in existence to this day but the sultans are just ceremonial heads. The real political power of modern day Malaysia lies with the parliamentarians or members of parliament (MPs) elected by the people through the democratic election process every five years. The dominant political party then set up the Malaysian Cabinet headed by the Prime Minister. The ruling party in Malaysia since the country achieved its independence in 1957 is the same party known as the National Front (NF). The NF is not a 'single' party but a consortium of several parties representing various ethnic groups in Malaysia. However, the dominant parties within the consortium are the Malay party (called UMNO), the Chinese party (called the MCA) and the Indian Party (called the MIC)(Khuo, 2001). It is interesting to note that the Prime Minister of Malaysia since 1957 has always come from the Malay ethnic group in the following running order – Tunku Rahman, Razak, Hussein Onn, Dr Mahathir and Abdullah Badawi (the present Prime Minister) (Ismail, 2004).

In 1969, the Malaysian government had realized that within Malaysia's growing economy, there was an economic imbalance between the major ethnic groups namely the Malays, Chinese and Indians. If this issue was not addressed, the country might be facing some major social problems in subsequent years. The economic structure of Malaysia then was that the Chinese were deemed to be wealthy as they were dominating the business and commercial sectors with some Indians and foreign companies while the Malays and majority of the Indians were poor as they were based in the agricultural sector, a sector deemed to be a low income sector. The government came up an affirmative action plan known as the New Economic Policy (NEP)(1970 – 1990), designed to restructure Malaysia's economy so that Malays and Indians could move into the more lucrative business sectors (Gunawan et al., 1980; Khuo, 2001; Mohmad Yazam & Wan Shakizah, 2002). The focus of this paper is on the Malay entrepreneurs. They are basically Muslims by faith. In the Malaysian constitution, a Malay is defined as someone who subscribes to Islam as his/her religion, speaks the Malay language and adheres to the Malay culture. In Islam,

venturing into business is encouraged as the Quran mentions that nine out of ten opportunities are to be found in business. (Ismail & Muhammad, 2000). However, the Malays as a community lacks the business culture as they by tradition were small time farmers and fishermen (Muhammad Ali, 2003). When the government decided to implement the NEP, the Malays were shocked. Yet the government persisted and provided a lot of assistance in terms of financial aids and developmental courses in entrepreneurship and business management. Some researchers said the Malays were the 'most helped' groups in the world in this respect (Mazilan, 2003; Searle, 1998).

This paper aims to assess those Malay entrepreneurs in Malaysia with regard to their way of managing people and business. Since their emergence in business had started only some thirty five years ago, their attention would be expected to focus on developing skilled employees (managers, supervisors, administrators and other supporting staff) to help their business growth. The paper also tries to determine whether Islam plays any role in the Malay entrepreneurs' efforts to develop their businesses.

## **The Malaysian Malay Entrepreneurs – Their Characteristics**

The Malays are natives to Southeast Asia, but they can be found all over the world. According to the Malay International Secretariat, based in Shah Alam, Malaysia, there are 350 million Malays in the world (cited in Asiapac, 2004). The Malay diasporas of 20 million had spread to Suriname (South America), South Africa, Madagascar, Sri Lanka and the Australasias (the Pacific Isles). Most Malays, particularly those in Southeast Asia, remain proud of their nature and traditions in these modern times. Over time, many researchers (Abang Azahari, 1991; Asma, 1996; 2002; Barcelona & Valida, 1992; Clifford, 1897; Gunawan et al., 1980; Mahathir, 1986; Shahrudin, 1986; 1988; Sloane, 1999; Swettenham, 1984; Winstedt, 1981) had tried to explain the behaviours and identify characteristics of who the Malays are.

Asma (1996; 2002), for example, states that the Malays share some common denominator with other Asians in the values they hold such as respect for their elders, collectivistic orientation (emphasizing more on group needs rather than individual needs), the focus on harmonious relationships, a concern for face saving and a deep religious orientation (p.xiv). What differentiates the Malays from most Asian ethnic groups is their religious orientation. The Malaysian Malays are basically Muslims and they adhere to the Islamic faith.

## **The Malays and the Islamic Business Principles**

Even though some Malays could have been involved in business during the glorious days of the Malacca Empire in the 15<sup>th</sup> century, their involvement might be on a small scale (Ismail & Muhammad, 2000). Malays did not have a business culture as they were mainly farmers and fishermen (Khou, 2001; Muhammad Ali, 2003). When the British ruled Malaya (as Malaysia was then known) as part of the British Empire during the 19<sup>th</sup> century and most of 20<sup>th</sup> century, they practised the 'divide and rule' system where the locals (including the Malays) were left undisturbed (ibid). It was only after 1969, 14 years after Malaysia had obtained its independences from the British, did the Malaysian government came up with the 20-year New Economic Policy (NEP) (1970 – 1990) to help create a Malay or Bumiputera business community (Abang Azahari, 1991; Gunawan et al., 1980). The government set up many agencies to implement the NEP. In early 1990s, it was found that there were 10 ministries, 94 agencies and 1,137 government-owned companies which were involved directly or indirectly in assisting the creation of the Malay business community (Barcelona & Valida, 1992). The government plans to create the Malay business community were based on a mixture of western business management as well as some Korean and Japanese management (Mahathir, 1986). However, these plans were always implemented by taking into consideration that the Malays are Muslims (ibid). While building the business culture, the Malays were constantly reminded by the government that they must conduct their business in a fair, efficient and trustworthy (FET) manner (Ismail & Muhammad, 2000). The FET became the slogan of the government when Dr Mahathir became Malaysia's Prime Minister in the early 1980s as it reflected the Islamic values for running good government and also managing businesses. Apart from these values, in Islam, work (whether working for people or conducting businesses) is regarded as a form of worship to God (Asma, 1996). In carrying out their duties to God, Muslim entrepreneurs should be aware that they are

responsible to the customers for the products they sell and they are also responsible for their employees (ibid). In addition, Muslim entrepreneurs are also forbidden from indulging in business activities related to usury like interest-based loans and insurance (Ismail & Muhammad, 2000).

## **The Malay Businesses and Human Resource Management**

With the implementation of NEP, the Malays began to learn about the world of business and began to venture into various fields such as retailing, wholesaling, contracting, property development and manufacturing (Muhammad Ali, 2003). In terms of modern management, the Malay entrepreneurs picked the importance of strategic management, financial management and human resource management (ibid). They learnt the importance of quality management and continuous learning (kaizen) from the Japanese and they learnt the importance of networking and supply chain management from the local Malaysian Chinese (Ismail & Muhammad, 2000; Low, 2001; Mohamad Yazam & Wan Shakizah, 2002). However, generally the Malay entrepreneurs found that the foundation of their business growth lies with their employees as employees are organizations' greatest assets (Mohamad Yazam & Wan Shakizah, 2002). There are various interpretations of how people management or human resource management can be carried out (Mondy & Noe, 2005; Pickford, 2003; Price, 2000; Selvaraj & Devi, 2002). Mondy & Noe (2005), for example, state that human resource management (HRM) functions must be linked to an organization's business strategy to make it work. They categorize the HRM functions into six areas – staffing, human resource development (HRD), compensation, industrial or employee relations, occupational safety and health and human resource research (ibid). The HRD functions are further sub-divided into training and development, performance management, career management, culture management and change management (ibid). Mondy & Noe's (2005) model of HRM seems to reflect what the Malay entrepreneurs should be doing.

## **Human Resource Management and Knowledge Management in Malay Businesses**

As employees are seen to be the most important assets of organizations by many employers (including the Malay entrepreneurs), the need to manage the knowledge (or knowledge management) of people management becomes important (Evans, 2003). Knowledge management should be on the human resource agenda (ibid). Several researchers (Davenport, 1997; Housel & Bell, 2001) have tried to explain the meaning of knowledge management. Sayed & Cheng (2004), for example, define knowledge management as a series of processes that manage the creation, dissemination and utilization of knowledge as well as measurement of performance. They added that the aim of knowledge management is to put together and organize knowledge to create a substance of value in knowledge (ibid). Bukowitz & Williams (1999) further added that knowledge management is the process by which the organization generates wealth from its intellectual or knowledge-based assets. Both definitions bring forward the contention that managing people is the foundation of managing a business. Efforts put on finding out the best ways of managing people would further develop the business.

## **Research Questions**

What are the Human Resource Management (HRM) practices in the Malaysian Malay businesses? Malaysian Malays as a community is still new to the business world. They were introduced to business as part of the Malaysian government's initiatives through the New Economic Policy (NEP) (1971-1990). Various educational and training programmes were implemented by the government to educate the Malays about business and finance their ventures through the setting up of several agencies over time (Muhammad Ali, 2003). At the same time, the government was sensitive to the fact that the Malays are Muslims who adhere strongly to the Islamic faith even though the degree of adherence may differ among them. But has religion (that is Islam) played any role in determining the HRM practices among Malay businesses?

## The Conceptual Framework

The conceptual framework for the study comprised the demographic factors as the independent variables, manager's perceptions of knowledge management as the moderating variable and the human resource management (HRM) practices as the dependent variables as portrayed in Fig. 1.

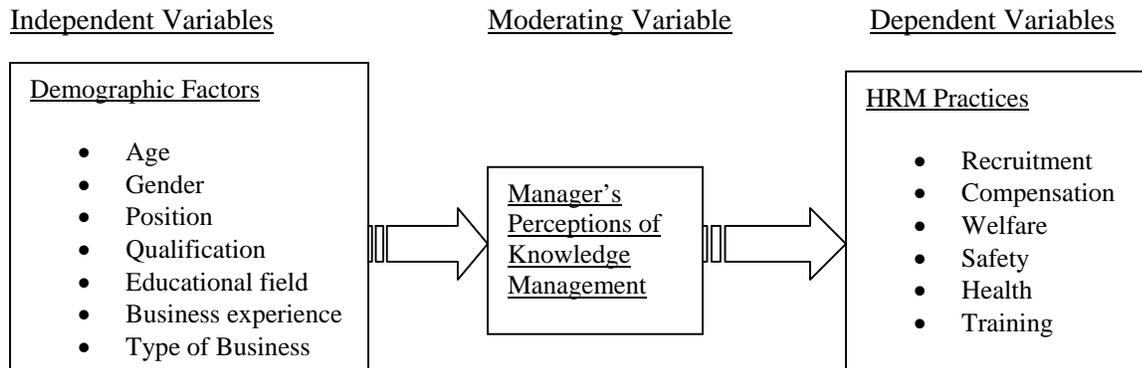


FIG. 1 FACTORS INFLUENCING THE HUMAN RESOURCE MANAGEMENT PRACTICES

## Methodology

### Research Design

Since the study was meant to cover the whole of Malaysia, the survey design was considered suitable to be undertaken. In terms of cost, survey is inexpensive (Gall et al., 2003).

### Sample and Unit of Analysis

A Malaysian-based business association called "PERDASANA" was selected from one of Malaysia's websites: [www.perdasana.org.my](http://www.perdasana.org.my). It was established five years ago and focused its activities affecting small to big businesses. It has 500 firms as its members coming from eleven state branches – Penang, Kuala Lumpur, Selangor, Perak, Johor, Trengganu, Kelantan, Kedah, Negeri Sembilan, Malacca and Labuan. From the 500 individual members, 150 individuals (30 per cent) were selected from the Perdasana website directory using a simple random sampling method. Sekaran (2000) views that the sampling figure is acceptable.

The unit of analysis would be the individual respondents who were members of the business association known as Perdasana.

### The Questionnaire

The survey questionnaire comprised three parts. Part I has eight questions on demographic factors. Part II has six statements on knowledge management perceptions while Part III has nineteen statements on human resource management (HRM) practices. Part II and Part III used the Likert scale of 1 to 5 where 1 represents strongly disagree and 5 represents strongly agree.

### The Reliability Test on Statements in Part II and Part III of the Questionnaire

The Cronbach Alpha reliability test was used. The reliability test values showed 0.75 for Part II and 0.78 consecutively. The overall test value was 0.765. These figures indicate that the questions posed were acceptable.

### Response Rate of the Survey

The study managed to get a response rate of 67 per cent. The usually norm for a survey in Malaysia is between 20 to 30 per cent.

### Analysis Tool

The data gathered were analyzed with the assistance of the SPSS software package version 12.

## Results and Discussion

This section discusses three aspects – the respondents’ demographic factors, the respondents’ perceptions of knowledge management and lastly the respondents’ human resource management (HRM) practices in their respective organizations. These were initial findings showing some descriptive statistics. For this paper, no attempts were made yet to show the relationships between the demographic factors, the respondents’ perceptions on knowledge management and human resource management (HRM) practices.

### Respondent’s Position

Out of the 100 respondents, 22 per cent were organizational chairmen, 21 per cent were managing directors cum CEOs, 17 per cent were CEOs, 13 per cent were human resource managers, 10 per cent were departmental officers and the rest were managers of diversified functions (Table 1). Generally the respondents were found to be senior officials of the organizations surveyed.

TABLE 1: RESPONDENT’S POSITION

Position	Frequency	%
Chairman	22	22
Managing Director/CEO	21	21
CEO	17	17
General Manager	10	10
Finance Manager	1	1
Marketing Manager	1	1
HR Manager	13	13
Administration Manager	1	1
IT Manager	1	1
Production Manager	2	2
Factory Manager	1	1
Officer	10	10
Total	100	100

### Respondent’s Age and Sex

As most of the respondents were senior officials, the age of respondents reflected this. 39 per cent of the respondents were between 41 to 45 years old; 15 per cent were between 46 to 50 and 12 per cent were between 56 to 60 (Table 2). Overall 81 per cent were between the age of 41 and 65. In terms of gender, 72 per cent of the respondents were males while 28 per cent were females (Table2).

TABLE 2: RESPONDENT’S AGE AND SEX

Age Group	Frequency	%
30 & below	4	4
31 to 35	8	8
36 to 40	7	7
41 to 45	39	39
46 to 50	15	15
51 to 55	8	8
56 to 60	12	12
61 to 65	7	7
Total	100	100
Gender		
Male	72	72
Female	28	28
Total	100	100

### Respondent's Educational Level and Field of Study

It was found that the majority of the respondents were highly qualified professionals. 74 per cent had first degrees, 14 per cent had masters degrees, 9 per cent had diplomas and 1 per cent had a doctorate (Table 3). In terms of their fields of study, 55 per cent studied business, management or economics while 14 per cent had qualifications in the technical or engineering fields (Table 3). Only 5 per cent had qualifications in Islamic studies.

TABLE 3: RESPONDENT'S EDUCATIONAL LEVEL & FIELD OF STUDY

<b>Qualification</b>	Frequency	%
School Certificate	2	2
Diploma	9	9
First Degree	74	74
Masters	14	14
PhD	1	1
Total	100	100
<b>Field of Study</b>		
Islamic Studies	5	5
Business, Management or Economics	55	55
Accounting	3	3
Agriculture	5	5
Technical or Engineering	14	14
Medicine	7	7
Law	8	8
Islamic Law	2	2
Dentistry	1	1
Total	100	100

### Respondent's Business Experience

Majority of the respondents were found to be experienced entrepreneurs. 37 per cent had between 11 to 15 years of experience, 29 per cent had between 16 to 20 years, 12 per cent had between 21 to 25 years, 7 had between 26 to 30 years while 3 per cent had between 31 and 35 years (Table 4). Only 4 per cent had below 5 years experience.

TABLE 4: RESPONDENT'S BUSINESS EXPERIENCE

<b>Years of Experience</b>	Frequency	%
5 years & below	4	4
6 to 10 years	8	8
11 to 15 years	37	37
16 to 20 years	29	29
21 to 25 years	12	12
26 to 30 years	7	7
31 to 35 years	3	3
Total	100	100

### Respondent's Business Type

It was found that the respondents were involved in various types of businesses. The main business types were manufacturing (32 per cent), contracting (10 per cent), property development (10 per cent), legal firms (8 per cent), medical clinics (7 per cent), hotel/chalet (7 per cent), restaurant (6 per cent), wholesaling (5 per cent) and retailing (5 per cent) (Table 5).

TABLE 5: RESPONDENT'S BUSINESS TYPE

Business Type	Frequency	%
Retailing	5	5
Wholesaling	5	5
Restaurant	6	6
Hotel or chalet	7	7
Contracting	10	10
Property development	10	10
Manufacturing	32	32
Land transport	4	4
Water transport	1	1
Air transport	1	1
Legal firm	8	8
Medical clinic	7	7
Dental clinic	1	1
Import Export	1	1
Private hospital	2	2
Total	100	100

#### Manager's Perceptions on Knowledge Management

The links between the respondents' background and the respondents' HRM practices were expected to be moderated by their perceptions on what they understood by knowledge management. The 'need to manage knowledge' would shape the respondents' way of practicing business management including HRM (Davenport, 1997; Evans, 2003).

Authors had agreed that knowledge management comprised at least six components – knowledge management concept, knowledge acquisition, knowledge codification, knowledge dissemination, knowledge sharing and knowledge application (Davenport, 1997; Evans, 2003; Housel & Bell, 2001). In this study, the mean scores on the knowledge management components showed that the respondents viewed their importance according to the following order – knowledge sharing (4.8500), knowledge dissemination (4.8000), knowledge application (4.7600), knowledge management concept (4.7500), knowledge acquisition (4.7000) and knowledge codification (3.4800)(Table 6). Except for knowledge codification, overall the respondents seemed to be quite aware of the idea of knowledge management.

TABLE 6: MANAGER'S PERCEPTIONS ON KNOWLEDGE MANAGEMENT (MEAN SCORES)

Manager's Perceptions on	Mean	Std Deviation	N
Knowledge management	4.7500	0.43519	100
Knowledge acquisition	4.7000	0.46057	100
Knowledge codification	3.4800	1.20168	100
Knowledge dissemination	4.8000	0.40202	100
Knowledge sharing	4.8500	0.35887	100
Knowledge application	4.7600	0.45216	100

#### Human Resource Management (HRM) Practices and Business Management

The focus of this study was on the Malaysian Malay businesses. As mentioned earlier, the Malays in Malaysia were basically Muslims and they adhere to the Islamic principles in the practice of worldly affairs, religious affairs, politics and businesses (Ismail, 2004; Ismail & Muhammad, 2000). The general Islamic principle in all affairs is to act in moderation as well as to foster goodwill and develop relationships among humans (ibid). People management or HRM is highly regarded whether in business or social activities (Ismail, 2004). Ideally, to Muslims, the fundamental to business management is human resource management. To manage people and business effectively, Islam encourages Muslims to have positive attitude towards knowledge and knowledge seeking (Ismail & Muhammad, 2000). Overall, the Malays were taught since they were young that in Islam, doing business, practising

good HRM and seeking knowledge are part of worship to God (Asma, 1996; 2002). But idealism and practice may be quite different.

In this study, 18 variables related to human resource management (HRM) practices (such as recruitment, compensation, welfare, safety, health and training) were developed and used in the survey. The mean scores on HRM practices showed that the respondents viewed their importance in the following order – trustworthy staff (5.0000), availability of praying rooms in the workplace (4.9900), experienced staff (4.9300), employee safety (4.8900), employee welfare (4.8600), employee health (4.8000), conduct business as one form of worship to God (4.7700), conduct HRM as one form of worship to God (4.7200), financial management and HRM are equally important in business (4.6900), always using Islamic loans for business (4.6700), people management is really business management (4.6300), practising HRM according to Islamic principles (4.4400), always using Islamic insurance for business (3.9600), skilful staff (3.5600), seeking employees’ opinions when making business decisions (3.0800), people management is less important than financial management (2.2200) and employee rewards (2.1900)(Table 7).

TABLE 7: RESPONDENTS’ HRM PRACTICES (MEAN SCORES)

HRM Practices	Mean	Std Deviation	N
Getting Trustworthy staff	5.0000	0.00000	100
Making available praying rooms at workplaces	4.9900	0.10000	100
Allowing male Muslims to perform Friday prayers	4.9900	0.10000	100
Getting Experienced staff	4.9300	0.25643	100
Ensuring Employee safety	4.8900	0.31447	100
Ensuring Employee welfare	4.8600	0.34874	100
Ensuring Employee health	4.8000	0.47140	100
View business as one form of worship to God	4.7700	0.48938	100
View HRM as one form of worship to God	4.7200	0.53333	100
Finance & HRM equally important	4.6900	0.69187	100
Always using Islamic loans for business	4.6700	0.72551	100
People management is really business management	4.6300	0.91734	100
HRM practices follow Islamic principles	4.4400	0.85658	100
Always using Islamic insurance for business	3.9600	1.26267	100
Getting skilful staff	3.5600	1.25786	100
Getting employees’ opinions when making business decisions	3.0800	1.22829	100
Managing people less important than finance	2.2200	1.05964	100
Employee rewards not important in business	2.1900	1.01200	100

## Conclusion

Generally there are many limitations to the study such as restricted sample and a weak instrument. In spite of these limitations, the study had found out that at least within the sample, most respondents had indicated that they had put high importance in managing the knowledge of managing their employees as the foundation to manage their businesses. Employees who are trustworthy, skilled and knowledgeable can contribute significantly to their employers and they are then subsequently reasonably rewarded. In addition, they believed in business, managing people is equally important as managing its financial matters. Within the context of current and future business environment which are becoming more competitive and more complex, the entrepreneurs surveyed also recognize the need for having more friends and networks. Thus based on their responses (in Table 7) they believed by practising their brand of knowledge management in managing people, they are not losing employees but gaining friends if their employees choose to leave them for other employment. By implication, they are the mentors while their former employees are their mentees. The outcome of this form of mentor-mentee relationship can likely result in a win-win situation for their businesses (Hiltrop & Udall, 1995; Lewicki et al., 2003). To them, managing people is managing business in the long run. This philosophy is in line with the Islamic business principles which emphasized that businesses should be conducted in moderation. Profits are no doubt important in any business but preserving human relationships (with employees and also customers) are equally important in ensuring that businesses can be sustained over time (Ismail & Muhammad, 2000).

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# Privatization in the First Ten Years of the Transition Country: The Case of Kyrgyzstan

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## Abstract

This paper focuses on analysis of privatization in the first ten years of the Kyrgyz Republic from 1991 to 2001. Since independence declared in 1991 Kyrgyzstan has undertaken significant economic and structural reforms of its economy. In 1994 the International Monetary Fund ranked Kyrgyzstan fourth among former Soviet Union countries in the pace of economic reform, but positive results have not been forthcoming. Privatization is presented as a process of transferring assets from public sector to the private sector. Privatization process began in December 1991 with the adoption of the Privatization and Denationalization Law and the creation of the State Property Fund as the Agency to design and implement the program. In late 1992, a new parliamentary “Concept Note” reoriented the program toward rapid sale of small enterprises and ownership transition in larger enterprises by vouchers and other special payments. By the end 1993, about 4,428 state enterprises, including 33 percent of total fixed enterprise assets, were fully privatized. By mid-1994, almost all services and 82 percent of assets in trade enterprises, 40 percent of assets in industry, and 68 percent of construction assets were in private hands.<sup>1</sup> Analysis of privatization over the 1991-2001 period of the transition country has shown the achievement in destroying the state monopoly, in retail and services, introducing competition, eliminating centralized economic controls, and restructuring and moving to a free market economy. It did not bring decisive changes in ownership within the Kyrgyz economy because the lack of management skills turned even profitable companies into losers whose assets were subsequently sold or plundered. The world privatization experience has shown that successful implementation of privatization creates an environment for stabilization and structural reforms. Over the longer term, there is a clear need to assist the Kyrgyz Republic to ensure that privatized enterprises have the opportunity to remain viable, to grow, and respond to their shareholders. Without attention to corporate governance and increased corruption, privatized enterprises could miss opportunities, expose their reputations to greater risk, and find themselves at a competitive disadvantage. Ultimately they will become less attractive to foreign partners and investors inside and outside the country. This, in its turn, will allow the country creating favorable conditions to attract foreign investments and encouraging a greater degree of entrepreneurship.

## Introduction

After the collapse of the Soviet Union in 1991, the Kyrgyz Republic declared its independence. The collapse of the Soviet Union gave rise to different political circumstances as well as to the new economic conditions for this country. Kyrgyzstan has decided establish a competitive market economy by accepting privatization centered. Most privatization (and almost all privatization in industry) was accomplished by creation of joint-stock companies, transferring enterprise shares to labor groups within them. Almost no public bidding for enterprise shares occurred, and the state maintained significant shares in enterprises after their conversion to joint-stock companies. Also, because the sale of shares was prohibited, shareholders wishing to leave the company had to return their holdings to the labor collective. The 1994 Law on privatization remedied this situation by providing for competitive bidding for shares in small enterprises (with fewer than 100 employees) as well as long-term privatization of medium-sized (with 100 to 1,000 employees) and large enterprises by competitive cash bidding among individuals. The new law also provided for the auctioning of all enterprise shares remaining in state hands, over undetermined period of time. In 1994 and early 1995, voucher privatization moved toward its goals quickly. By the end of 1994, an estimated 65 per cent of industrial output came from non-state enterprises.

However, privatization was not the final step in economic success in the Kyrgyz Republic. After privatization many enterprises needed drastic restructuring – in management and technology to function in a market environment. Many managers have no idea how to plan their activities in market economy. Nothing is being done to renew main production funds. No measures are undertaken to improve financial situation of enterprises. All these result in low profits, big losses, marketing and financial problems.

### Privatization Process in the Kyrgyz Republic over the 1991-2001 Period

As the author mentioned before the Kyrgyz Republic started the privatization process to transfer publicly owned enterprises to private hands after the collapse of the Soviet Union in 1991. The Kyrgyz Republic, like other transitional economies, pursued its own strategy in privatization.

In 1992, the Kyrgyz Republic embarked a broad program of stabilization and structural reform, including price liberalization, mass privatization and liberalization of the trade regime. Most prices were liberalized with the removal of all direct and indirect price controls, and as for trade policy, all non-tariff barriers to exports and imports were removed. A mass privatization program has placed approximately 1,000 primarily medium-sized and large enterprises and several thousand small businesses under private control. In Kyrgyzstan, the mass privatization was conducted in the following way: the whole adult population was given privatization coupons on a free and equal base, with further rights to purchase apartments or exchange them for shares of state owned enterprises. The coupons were easy to trade. But the market prices of the coupons were very low. The price of 100 coupons was 1.22-1.35 soms, one coupon being approximately 0.0008 US\$. Thus the distributed coupons equaled 0.625 US\$ per capita in the Kyrgyz Republic. As a result, the coupons were not considered seriously by their owners. The mass privatization without clear legal boundaries in the early 1990s resulted in mass corruption in which high-ranking officials and influential politicians (including the opposition) snatched up the most lucrative properties and businesses.<sup>2</sup>

This method was widely used in the Czech Republic, Romania, Poland, Russia and Byelorussia. Unlike other ways, it does not require financing, and it does not gain budget revenues. The main peculiarity of this method is that the privatization process is quick and socially acceptable by the population. But the weak point of it should be admitted: that is the fact that the real situation of enterprises after privatization remains the same with all its related problems: difficult financial situations, low profitability, out-dated technology, and insolvency.

The privatization process in the Kyrgyz Republic can be divided into three distinct phases, which are 1991-1994, 1995-1997, and 1998-2001. For each period, the number of privatized firms can be seen in Table 1 with respect to the sectors of Kyrgyz economy.

TABLE 1: PRIVATIZATION OF STATE OWNED ENTERPRISES IN KYRGYZSTAN, 1991-2001

Sectors	1990*	1991		1995		1998		1991	
		1994	%	1997	%	2001	%	2001	%
Industry	608	376	61.80.	155	25.49	19	3.12	550	90.46
Agriculture	855	333	38.95	21	2.46	16	1.87	370	43.27
Services	6180	4424	71.58	378	6.11	243	3.93	5045	81.63
Public Services	3192	2195	68.76	154	4.82	170	5.33	2519	78.91
Trade	1963	1769	90.11	112	5.70	41	2.08	1922	97.91
Construction	730	345	47.26	73	10.00	16	2.19	434	59.45
Transportation	295	115	38.98	39	13.22	16	5.42	170	57.63
Other branches	2346	326	13.90	347	14.79	455	19.39	1128	48.08
<b>Total</b>	<b>9989</b>	<b>5459</b>	<b>54.65</b>	<b>901</b>	<b>9.01</b>	<b>733</b>	<b>7.33</b>	<b>7093</b>	<b>71.00</b>

(\*) Shows the number of State Enterprises before privatization process starts

Source: State property Fund, Bishkek, Kyrgyzstan, 2002

#### Phase 1 1991-1994

This phase focused on establishing the legal framework and institutional infrastructure required to enable ownership of private property (other than land) and private enterprise. Land reform began with 17,000 peasant farms and new agricultural cooperatives being formed from a number of state and collective farms.

This period also saw two principal approaches to the privatization of companies:

1. A small-scale privatization program. The end of 1993 had sold more than 3,400 small-scale enterprises in retail trade, catering and services via cash auctions.
2. A mass privatization program (MPP). The Kyrgyz mass privatization program was designed to encourage ownership by outside investors in order to stimulate restructuring of enterprises. Enterprise managers have,

however, not only effectively maintained control of the majority of privatized firms, but have been able to increase their holdings since privatization. This is the result of the purchase of majority positions by enterprise managers directly from the state during the privatization process, or from other investors during the several years following privatization.

Special payments were issued, the amount each citizen received depending on employment records. The vouchers could be used to buy public housing or partial payment for the privatization of medium-scale or large enterprises. The percentage of equity of such enterprises reserved for sale for vouchers was determined on an individual basis, but could not be less than 24%.

Negative aspects of this phase:

This voucher program turned out to be an inefficient and restrictive instrument of mass privatization because:

- Vouchers were not tradable and therefore had no market value
- Vouchers distributed only a small percentage of the equity of individual enterprises and offered no opportunity for change in control and management
- Vouchers were time-limited and most of them were not even used

Positive aspects of this phase of privatization:

- Destroyed state monopoly in retail and services
- Introduced competition
- Eliminated deficit

Despite these positive aspects, they did not bring any decisive changes in ownership and control structures within the economy.

#### **Phase 2 1995-1997**

This phase began with the adaptation of a new privatization strategy, which brought about important changes. With some key exceptions, all medium and large scale enterprises (MLE) became immediately available for privatization. Private investors, Kyrgyz or foreign, were allowed to own up to 100% of the equity of the MLE.

The MPP vouchers, most of them still unused, were replaced by privatization coupons. Coupons could be used to purchase equity in state enterprises at coupon auctions where typically up to 25% of an enterprise's equity was offered. Coupons could also be used to buy the stated-owned dwelling in which the coupon holder lived. Coupons were transferable, and both Kyrgyz nationals and foreigners – including institutional investors – could trade freely in them.

In addition to the coupon auctions, individual privatization, cash auctions (which typically took place following an enterprise's coupon auction) and investment projects were the main methods of privatization used during this stage. Phase 2 also saw the creation of the Enterprise Restructuring and Resolution Agency (ERRA) in May 1994 under the World Bank- supported Privatization and Enterprise Sector Adjustment Credit (PESAC) to deal with 29 large loss-making enterprises. This group of companies needed either radical restructuring or liquidation. Diagnostic studies were conducted on each of the enterprises, and liquidation was begun in those determined to be unsalvageable. The ERRA shut down production at these enterprises, instituted "care and maintenance programs", and placed the bulk of their employees on paid leave. Within the group judged to be salvageable, there was restructuring to relieve the companies from the burden of old debts and non-core assets. Some received rehabilitation assistance in the form of loans from the PESAC program and have successfully resumed operations. One completely resuscitated after controlling blocks of shares were offered for sale by tender to strategic investors.

All told, phase 2 encompassed the complete or partial privatization of an additional 1,000 enterprises. Disposition of the 4,4 billion privatization coupons which were printed during this period has been as follows: 41.26% were used at auctions by individuals and companies; 9.82% were used at auctions by investment funds; 0.20% were used to purchase apartments; 0.72% were used to purchase property; 27.55% were distributed but remain uninvested; and 20.45% had yet to be distributed (as October 10, 1996).

The main objective of this stage of privatization was transformation of medium size and large enterprises in industry, transportation and construction. They were privatized in the following manner:

- 5% of the equity distributed to the employees
- 25% sold for coupons in auctions

- 70 % sold to individuals or corporate investors at cash auctions.

All these figures demonstrate there is a serious problem of “coupon overhang”, which can be attributed to the following reasons:

1. The MPP vouchers were time-limited and a proportion of the population lost their entitlement to convert them into coupons because they did not do so prior to their expiration date.
2. The general population had little confidence in the values of the privatization coupons. At a current market price of 1.22 – 1.35 soms for a bill comprising 100 coupons, each coupon is worth approximately 0.0008 US\$ making the distributed coupons equal to only 0.625 US\$ per person in the Kyrgyz Republic.
3. While the Government’s motives for retaining a portion of the coupon issued are not known to the author, it is known that the government has periodically sold small groups of coupons into the market. At their current market price, 20% of the coupons, which remain in Government hands, are worth approximately \$0.75million. However, each time a group of coupons is sold, the market price has fallen and effectively diluted the value of the outstanding coupons held by Kyrgyz citizens. This auction effectively transferred part of the value of the Kyrgyz Republic’s assets back into the hands of the State.
4. A significant amount of the coupons in circulation remain uninvested. Thus, portions of those companies to be sold in phase 3 of the privatization program (see below) must be offered to the general public in exchange for the outstanding coupons; otherwise the uninvested coupons will be useless. This phase also focused on restructuring large objects of monopolized sectors of the economy, privatizing non productive spheres, and restructuring and rehabilitation work with heavily indebted enterprises by units of the State Property Fund. Phase 3 is distinguished from phase 2 by the nature of the companies involved, which are predominantly large scale enterprises in mining, construction, transport and tourism, public utilities and infrastructure. Also 100 MLE that had been partially privatized, but in which the government continues to retain significant share holdings.

### **Phase 3 1998-2001**

The current stage of privatization lays emphasis on restructuring monopolies in the basic and strategic sectors of the economy – telecommunications, civil aviation, printing and publishing, electricity generation and distribution, coal mining, natural gas import and distribution, engineering, antimony production, natural gas import and distribution. Because of the size and diversity of these largest properties, there will be specific arrangements in every case. Each of the entities will be subject to thorough feasibility study.

Despite a high rate of privatization in SMEs sector, the State still retains important stakes in number sizeable industrial enterprises, often characterized by high levels of indebtedness, lack of working capital and inadequate management and marketing skills. Good corporate governance is still to be developed, and its role fully comprehended.

Privatization of the Large State monopolies (Kyrgyz Air, Kyrgyz Telecom, four distribution companies established as a result of the break-up of Kyrgyz Energo, the State –owned energy company, and Kyrgyz Gas) which has been on the agenda for the last few years, is deemed critical for the success of the medium term program of the Government. These enterprises account for a relatively large share of economic activity, and their poor performance places a significant drag on potential output growth. Moreover, the sale of these assets would make an important contribution to external debt reduction. Successful privatization of these enterprises will be essential to boost investor confidence in Kyrgyzstan.

Thus, the Center of International Private Entrepreneurship conducted the research on economic reforms in 32 countries, including all the main developing countries, as well as the former socialist countries of Central and Eastern Europe. The research has shown that those countries, which successfully implemented privatization programs – Thailand, Malaysia, Singapore, Mexico, Argentina and Jamaica, have succeeded much in their reforms. But successful implementation of privatization programs does not necessarily result in successful economic reforms. The main point here is that successful privatization creates an environment for stabilization and structural reforms.

Although some degree of macroeconomic stability has been achieved by the government, the macroeconomic reality of the Kyrgyz Republic has yet to be improved to the levels necessary so that privatization and restructuring would be considered as a positive impact on the economic reforms.

### Why is Privatization an Important Element for Economic Reforms?

Privatization can improve the economy and create favorable conditions for local and foreign investors, which are obligatory conditions of economic reforms at present. In other words, privatization is profitable for state and private sectors and consumers, not only for those enterprises being privatized.

Privatization will be successful if accompanied by reforms targeted to create more open and competitive markets. Despite economic difficulties, which are temporary, privatization is a huge step toward economic growth and lasting prosperity.

To draw foreign investment, notwithstanding the fact that in the direct perspective, privatization and implementation of economic reforms have a destabilizing impact, effective privatization programs can stabilize the monetary situation and economy of a country in the long perspective.

Macroeconomic stability, better tax administration, a substantially improved financial system and much less interference of the bureaucracy in the affairs of the private sector are a key factor in drawing foreign investments, which bring many advantages to countries receiving investments, that is sharing technology, increasing employment and developing exports. These three aims are crucial for the economic growth and development.

The climate for foreign investments in the Kyrgyz Republic at the enterprise level is not ideal. Despite the adaptation of a foreign investment law that guarantees the rights of the foreign investor, enterprises have limited experience and interest in investment by foreigners. Owners frequently overestimate the value of their companies, not understanding the relatively high level of investment risk perceived by foreigners and the investment alternatives available to them in other markets, particularly as the “global market place” continues its expansion. Local managers and owners fear a loss of control and are reluctant to disclose enterprise information essential for investor analysis. They are also unwilling to undertake the restructuring methods set by foreigners as conditions for investments. There has been an important decline in foreign direct investment inflows to Kyrgyzstan over 1993-2001 periods (see Table 2).

TABLE 2: FDI INFLOWS (NET) KYRGYZSTAN

COUNTRY	1993-2001		2001		Percentage of
	Total million US Dollars	Per capita	Total million US Dollars	Per capita	
Armenia	640	168	70	18	4.0
Azerbaijan	3773	472	227	28	4.0
Kazakhstan	12104	872	2760	185	15.0
Kyrgyzstan	453	92	22	4	0.7
Tajikistan	127	20	22	4	2.0
Uzbekistan	987	40	71	3	0.9

Source: UNCTAD, IMF, central banks

Net FDI declined in 1998-2000 reflecting the completion of the Kumtor gold mine project. The Kumtor gold mine has the seventh largest gold reserves in the world, with underground reserves of an estimated 200 tons. It is run by the Kumtor Gold Company, a Kyrgyz-Canadian joint venture. The joint venture produced about 21 tons of gold in 2001, and is a major earner for the country, contributing roughly 6 per cent of GDP each year. The gold mine also is also the hard currency earner in the country and accounts for about 40 per cent of all export earnings. The total project cost is US\$370 million, the single largest private foreign investment. However, the enabling domestic economic environment will limit the potential for foreign investment inflows and for successful enterprise restructuring and performance.

Canadian companies are the main investors in Kyrgyzstan comprising 38.1 per cent of the total cumulative investment during 1995-2001. The second largest foreign investor is the United States, with about 14 per cent of the cumulative investment (see Table 3), followed by Turkey with 12 percent of the total cumulative investment. The United Kingdom, Germany, Republic of Korea, Switzerland, Russian Federation, Netherlands, and Italy are other large investors in the country.

TABLE 3: KYRGYZSTAN: SOURCES OF FDI, 1995-2001

<b>Region/Country</b>	<b>FDI inflows</b>
Canada	38.1
United States	14.1
Turkey	12.0
United Kingdom	9.3
Germany	6.8
Republic of Korea	6.0
Switzerland	1.9
Russian Federation	1.6
Netherlands	1.5
Italy	1.5
Others	7.2

Source: Kyrgyz State Statistics Committee, 2002

The largest amount FDI has been concentrated in the mining sector, which accounted for about 55 percent of the cumulative total of US \$734 million gross FDI over the 1995-2001 period (see Table 4).

TABLE 4: KYRGYZSTAN: SECTORAL DISTRIBUTION OF FDI STOCK, 1995-2001

<b>Region/Country</b>	<b>FDI inflows</b>
Mining	55.0
Industry	5.8
Construction	5.9
Retail trade, catering and services	21.1
Transport/Telecoms	1.2
Others	11.0

Source: Kyrgyz State Statistics Committee, 2002

Investment in manufacturing, transport and telecommunication, and the construction sectors continues to be low with a substantial invested in the trade and services sector.

Both foreign investors and local managers bemoan the loss of tax holidays available under the old foreign investments law. Without the inclusion of compensatory investment incentives in the Tax Code, government officials continue to grant tax concessions and privileges in an effort to remain competitive in attracting foreign investment vis-a-vis neighboring countries. A comprehensive Tax Code enacted in 1996 was updated in 1999. Amendments provide a uniform tax system, including income, profits, excise, customs, land and vehicular tariffs. However, tax system is burdensome, sometimes involving complex and time consuming accounting. Payroll taxes such as social fund payments, which are used for the national pension system, among other things, are also complex. The tax administration system is corrupt and abusive. On the one hand, it is observed that legitimate businesses have little incentive to offer bribes, tax inspectors have a reputation of deliberately finding and sometimes creating problems so that they can negotiate financial payments for not revealing what they have discovered. On other hand, it is believed that many businesses do not pay taxes – hiding income and exaggerating expenses – but the corruption of the tax inspectors means that it is possible for these illegitimate businesses to pay less in bribes than they should in taxes.

Although the Kyrgyz Republic has entered into international trade agreements with its neighbors, enterprises report various difficulties in transporting goods across borders. Vehicles face frequent and extensive delays at border crossings and Custom Union countries often do not recognize duty-free entry of machinery and equipment in transit to the Kyrgyz Republic through their countries, or they require payment of VAT before goods are released. Companies complain of arbitrary enforcement and interpretation of rules at borders and claims of improper documentation. Transparent complaints and appeal procedures are lacking.

Weaknesses in the legal and judicial systems also hamper investment. Foreign investors as well as domestic investors demand control of enterprises in part due to the difficulties in adjudicating claims in the Kyrgyz Republic.

While most major pieces of commercial legislation are now in place, enforcement of judges' decisions is difficult and a workable system of appeals non-existent. Courts suffer from a lack of transparency, poor procedural processes and the absence of qualified judges and other legal professionals. In other words, the court system is weak and corrupt, the courts do not enforce legal rights, and inconsistent interpretation of laws is not unusual. Despite the legal provisions, there are no effective means of guaranteeing property and contractual rights. This is the result of poor training and low compensation. An honest court system is essential for encouraging and supporting restructuring of enterprises, as legal protection of the rights of creditors and other collateral holders, the enforcement of liquidation and bankruptcy rules and guarantee of property rights are strong incentives for managers to put their houses in order.

Despite the adaptation of a licensing law in 1997, the system of enterprise licensing, in particular the lack of appropriate procedures for exacting penalties for violations or of a transparent appeals process, remains a source of harassment for firms. Clearly, Kyrgyzstan presents a difficult business environment. Major administrative obstacles to investment are inconsistent implementation and interpretation of laws and regulations, excessive intervention of control agencies, unnecessary licenses and permits, corruption and unofficial payments, and insufficient institutional capacity of governmental agencies. Abuses in the administration of licenses, frequent changes in government practice and criteria, and the recent proliferation of licensing requirements can provide significant power to officials to thwart the rational flow of business.

The securities markets in the Kyrgyz Republic have played a limited role in fostering ownership change. Trading on the stock exchange is strictly regulated, but almost all trading takes place "off-market", in an unregulated environment fraught with potential risk, and the largest infrastructure companies most likely to attract investors' interest have yet to be privatized. As a result, exchange liquidity is particularly low. For most people who became shareholders during the mass privatization program, opportunities to sell securities are limited.

Why has privatization implementation appeared to be difficult and contradictory?

Here four groups of reasons could be pointed out, which slow down the process of privatization:

- (1) First, the policy of the opposition, which resists the process of privatization, presents a non-homogeneous environment, not supporting the policy of the government;
- (2) Second, the private sector is not strong. Therefore, an inadequate level of financial markets, and laws, as well as finance and poor credit and securities mechanisms badly effect privatization of large enterprises, the main way of which is share sales;
- (3) Third, technical difficulties and large material expenses of privatization are common in developing former socialist countries, including the Kyrgyz Republic, with lack of both finance and highly qualified specialists to fulfill targeted projects;
- (4) Fourth, conflicts in the aims and conditions of privatization itself.

For instance, in the Czech Republic, privatization received more support than in Poland and Hungary (where the process was considered as an encouragement of foreign investments). In other words, the Czech public was much more interested in privatization than was the public in Poland, since people had the choice of how to use their vouchers<sup>3</sup>. The bureaucracy, which comprises heads of former state owned enterprises, have too much impact by adapting forms of privatization to their own interests, or, as commonly said, they turn privatization into 'personal privatization'- "prihvatization" (derived "prihvatit" – take away, Russian).

The experience of privatization in the developing countries, for instance, in Thailand, Indonesia, Singapore, enables us to make a number of general conclusions concerning privatization:

- Introduction of competition in sectors, being monopolized by state owned enterprises in the past, enables large enterprises to be more effective and provide services of better quality;
- Private pension funds will assist in easing privatization processes since they strengthen capital market and enable individual shareholders to manage their shares and participate in programs. Elements of this experience were used in the Czech Republic and Poland;

- Privatization programs are implemented faster if the state does not make attempts to reconstruct enterprises before putting them on sale. Private investors, as a rule, can take more effective measures of reconstruction. Delay of privatization causes doubts towards the government and decreases public support of privatization. Delay of privatization is costly for the state as well, which can cause or prolong misbalance on a macroeconomic level.

#### **Privatization Methods**

In the world experience, there are six methods of carrying out privatization programs:

- Public, open share sales;
- Closed, share sales to fixed buyers;
- New private investments to state enterprises and formations on this basis of (joint private ventures);
- Direct Sales of state assets (mainly through auctions);
- Purchase of state enterprise by its managers and employees, using a loan;
- Growth of state enterprise or establishment of Holding Companies with affiliated offices.

These methods are spreading in highly developed countries as well as in developing countries. For example, Chile privatized the “Compania Telefonos de Chile” as a part of a political scheme in which the transfer of companies that had been in State hands to private sector companies was being sought. The development of this industry in Chile has been so successful that at present it is now among the countries that are interested in “exporting” their know-how and investing in foreign countries. In telecommunications sector of Argentina, 60% of the stock was sold to international operators and the remaining 40% was divided among the workers belonging to the telephone cooperatives and the public in general. In general terms, we can say that the efforts of these privatizations in telecommunication sector have been very positive. The industries have quickly demonstrated improved services and technological advancement to the benefit of their users. However, privatization is often adopted because it is seen as a method to quickly convert to a market economy. Nowhere has this been demonstrated better than in the former socialist countries of Central and Eastern Europe and the former Soviet Union. These newly independent countries have undertaken the most extensive privatization programs in the world, adopting almost every method of privatization available. Both the scope of transaction activity and public participation has been impressive. Hungary, the Czech Republic, and Poland lead this region in terms of implementing and carrying out successful privatization transactions. In each of these countries, private sector now controls the majority of the economy<sup>4</sup>. Privatization process is very complex in transitional economies. Because any attempt to organize public offerings in these economies as a way to privatize the bulk of the economy faces insurmountable practical problems. There are some restrictions of selling public-owned enterprises to private hands. At the aggregate level, the stock of private savings is far too small to purchase the assets of the industrial sector at anything faintly resembling market prices. On the supply, however, the governments in reforming economies had an enormous number of assets to sell, and, in order to avoid rapid asset dissipation by theft, the transfer had to be undertaken rather quickly. Governments could still of course seek to use auction or public tender methods to sell a few selected firms, either to domestic purchasers or to foreigners. This happened in most countries, especially those of Central Europe where progress in reform as a whole was more advanced. Foreign owners would clearly be outsiders to the existing managerial structures, and could be expected to introduce some form of Western governance apparatus on the enterprise. Sales to domestic customers could be either to insiders or outsiders, and given to virtual absence of substantial private stocks of savings, managers and workers, either together or separately, would be the most obvious buyers. Only Hungary (and perhaps East Germany) has been willing or able to sell an appreciable share of former state owned assets to foreigners. Some governments, notably in Romania and Kyrgyzstan, have instead encouraged the emergence of insider owned firms with ownership centered upon trusts controlled by managers and or workers. These management and employee buyouts have also been an important element in the Kyrgyz Privatization. The methods used in the privatization of state enterprises for the period 1991-2002 in Kyrgyzstan can be seen in Table 5.

TABLE 5: PRIVATIZATION METHODS AND PERCENTAGE DISTRIBUTION OF ENTERPRISES: 1991-2001

Privatization Methods	(I)		(A)		(S)								(O)		Total	
		%			(a)	%	(b)	%	(c)	%	(d)	%		%		%
Leasing for later purchase	9	1.6	4	1.1	32	1.3	4	0.9	48	2.5	-	-	43	3.8	140	1.9
Joint stock companies	406	73.8	130	35.1	322	11.8	308	71	200	10.4	143	84.2	184	16.3	1693	24
Sales through auction	16	2.9	6	1.6	218	8.7	11	2.5	159	8.3	2	1.2	118	10.4	530	7.4
Sales through competitive bidding	12	2.2	2	0.5	544	21.6	3	0.7	581	30.2	-	-	62	5.5	1204	17
Direct sales to private persons	21	3.8	40	10.8	836	33.2	13	3	328	17	5	2.9	390	34.5	1633	23
Direct sales to employees	52	9.4	178	48.1	492	19.5	71	16.3	551	28.7	15	8.8	275	24.4	1634	23
Limited liability	30	5.4	10	2.7	63	2.5	24	5.5	55	2.8	5	2.9	37	3.2	224	3.1
Free	4	0.7	-	-	12	0.4	-	-	-	-	-	-	19	1.7	35	0.5
Total	550	100	370	100	2519	100	434	100	1922	100	170	100	1128	100	7093	100

Note: (I), (A), (S) and (O) are the capital letters of the main sectors, such as industry, agriculture, total service sector, and other branches, respectively and small letters represent subsectors of the total service sector, such as (a) represents public services, (b) represents construction, (c) represents trade, and (d) represents construction, (c) represents trade, and (d) represents transportation sector.

Source: State Property Fund, Bishkek, Kyrgyzstan, 2002.

It is seen in Table 5 that the most widespread form of privatization is the formation of joint-stock companies, which is 24 per cent of all privatized enterprises in the economy. This is followed by sales to private persons and to employees of the enterprises, accounted for 23 per cent for both of two methods. The third method is sale through competitive bidding, accounted for 17 per cent. This is followed by sale through auction, which is 7.4 per cent. Limited liability accounts for 3.1 per cent, leasing for later purchase is 1.9 per cent, and free distribution is 0.5 per cent of all privatized enterprises.

Direct sale to private individuals began in 1993 and sale through competitive bidders first appeared in 1994. These forms of privatization of small and medium sized enterprises are more accessible for purchasers. Large enterprises were also converted into state/joint stock companies in order to be able to be purchased. It was thought that this form would become one of the most dynamic structures of the mixed economy<sup>5</sup>

On the other hand, in terms of the sectors of economy, the following methods are used in privatization process. In industry the predominant form is the formation of joint-stock companies; in agriculture direct sales to employees of enterprises and secondly the formation of joint-stock companies, in consumer services direct sales to private individuals through competing bidding. In construction, the predominant form is the formation of joint-stock companies, in trade sector sales through competing bidding which is 30.2 and secondly is direct sales to employees of enterprises. In transportation, the formation of joint-stock companies is the predominant form. In the other branches of the economy, it is direct sales to private individuals and direct sales to employees of enterprises.

## Conclusion

The world experience of privatization has shown that privatization, if well implemented, will have a positive impact on economic development and democracy. Also privatization of state owned enterprises is good and profitable for consumers, too. An enterprise forced to struggle with competitors and gaining a new investment capital, new system of management, technology, as a rule, provide better and more qualitative and cheaper service. The efficient and effective governance of the whole process is a key element of ensuring quality of life of citizens and global competitive position of a country. The ability and competence of state institutions is a crucial importance to a country's socio-economic reforms.

The Kyrgyz Republic has made good progress in privatization compared to other types of reforms performed in the country. However, privatization program could have been even stronger. The degree of nepotism involved in the sale of companies needs to be reduced. The pace of privatization could be quickened and the quality improved if:

- (1) Defined prices for international securities are on more realistic levels and time frames are longer.
- (2) Government sells more companies on an “as-is” basis, and the object of restructuring (state debts, financial statements of enterprises) is prepared according to international standards, and the legal status of enterprises is clarified.
- (3) Created a local worker ownership of privatized wealth.
- (4) Built a rule of law and culture of honesty.
- (5) Corruption is reduced.
- (6) The policy of privatization is clearly defined and procedures followed more strictly and transparently.
- (7) Created an adequate institutional framework that would include strong mechanisms of corporate governance, including rules to protect minority shareholders, rules against insider deals and conflicts of interest, and adequate accounting, auditing, and disclosure standards.
- (8) Developed infrastructure.

Over the longer term, there is a clear need to assist the Kyrgyz Republic to ensure that privatized enterprises have the opportunity to remain viable, to grow, and respond to their shareholders. Without attention to corporate governance and increased corruption, privatized enterprises could miss opportunities, expose their reputations to greater risk, and find themselves at a competitive disadvantage. Ultimately they will become less attractive to foreign partners and investors inside and outside the country. This, in its turn, will allow the country creating favorable conditions to attract foreign investments and encouraging a greater degree of entrepreneurship.

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### End Notes

<sup>1</sup> Source: Kyrgyz State Statistics Committee, 1996.

<sup>2</sup> Nations in Transit 2004: p.20; <http://unpan1.un.org/intradoc/groups/public>

<sup>3</sup> Boyko, M.(1996) *Privatizing Russia*. P.82, Cambridge Massachusetts, London, England

<sup>4</sup> <http://munshi.sonoma.edu/intl/developments.html>

<sup>5</sup> Koychuev, T.,(2001) *The economy of the Kyrgyz Economy on the way of reforms*, Bishkek p.54, Bishkek



SECTION 3  
FDI & FINANCIAL MARKETS

2005

# Currency and Stock Market Correlation

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## Abstract

This paper examines the correlation between the foreign exchange rate and stock index movements in six countries over a 31-year time period. The time series of daily data is used to derive the correlation coefficients for each country. The results show that strong positive or negative correlation exists for the entire 31-year time horizon and also on the yearly basis. Furthermore, the yearly correlation becomes relatively stable in three European countries but is unstable in other three countries; investors in the developed markets can achieve high equity returns while their currencies appreciate. The findings contradict some of the previous empirical studies and have important implications in international investing. Currency and stock markets forecasts should be integrated, and currency and stock management in a portfolio should also be integrated.

## Introduction

The commonly used performance attribution analysis in international investing considers the currency market return as a component of the international equity market return (Reilly & Brown, 2003). The implication is that currency return enhances or reduces international equity return.

However, such a causal relationship between the two is plausible. The foreign exchange rate, which measures currency return, is determined by the relative economic growth in two countries, according to the asset market approach. As we know, relative economic growth is reflected by the equity market return. Therefore, currency return may be determined by the equity market return, not the other way around; or perhaps there is a two-way relationship.

Osborne (1959) describes the random character of stock market prices as “Brownian motion” in his influential article. Murphy (2001) shows that, like common stocks, exchange rates are random because the flow of information about significant economic events that affect flexible exchange rates is random. Their analyses are entirely statistical and are not related to any fundamental economic determinants.

This paper is neither intended to deal with the controversies surrounding the causality between the stock and currency markets, nor with the randomness of the two markets.

In practice, most international equity managers are bottom-up stock pickers who do not pay heed to currencies but whose returns are heavily influenced by their unintentional currency bets (Bensman, 1996). If currency and stock markets are not correlated or weakly correlated, the international equity managers’ ignoring of the currency selection may be acceptable. However, if the two markets show relatively strong correlation, positive or negative, the international equity managers may have to reconsider their strategy. This raises a question whether currency and stock markets are strongly correlated

According to Solnik (1996), all studies point toward a very low correlation between stock returns and exchange rate movement. He also reports very weak correlation between monthly returns on equity and individual exchange rate among eight countries during 1973-1993. There are only a couple of exceptions: -0.29 for the Canadian stock market and its currency exchange rate per US dollar; and 0.23 for the Dutch stock market and its currency exchange rate per US dollar.

In contrast, Eaker, Grant and Woodard (2000) show that currency movements (primarily depreciation) have a dramatic impact on individual country returns in their study on nine emerging markets for the period of 1976-1997. Investors earn some of the best overall rates of return in countries whose currency is experiencing a rapid depreciation.

This paper reexamines the correlation issue and tries to answer three research questions. First, is there a strong or weak correlation between the currency and stock markets over a long time period? Second, are these correlation coefficients increasing or decreasing over time? Or they are simply unstable and trendless? Finally, what are the implications of the empirical results?

## Methodology

The correlation coefficients of the currency and stock markets are examined for six countries over the time period between 1973 – 2003 (subject to the data availability of Australia). The six countries are Australia, Canada, France, Germany, Japan, and United Kingdom. These countries cover four major continents and therefore have a broad representation in terms of geographical regions and currency blocs. These countries are under the floating exchange rate regime during the time period and are therefore meaningful to the study.

The stock index in each country is measured in its local currency. The exchange rate is expressed in its local currency per US dollar, considering the US dollar is the most influential currency to these countries during the study period. Therefore a positive correlation indicates that the local stock index benefits from a depreciation of the local currency vis-à-vis the US dollar. A negative correlation means that the local stock index is negatively affected by a depreciation of the local currency vis-à-vis the US dollar. To avoid the controversy of the causality between the currency and stock markets, we may also interpret the results as follows: a positive correlation indicates that the local currency depreciates vis-à-vis the US dollar as the local stock index increases; a negative correlation means that the local currency appreciates vis-à-vis the US dollar as the local stock index increases. In any case, the higher (positive or negative) the correlation is, the stronger the effect is.

First, the correlation coefficients are derived for each country using the daily time series data between 1973-2003 from Datastream. The only exception is Australia for which daily data are only available between 1992-2003. Then daily exchange rate and stock index are plotted in a scatter for a 31-year time period for each country, which not only provides an intuitive result, but also helps to confirm the validity or invalidity of each correlation coefficient in six countries.

Second, the yearly correlation coefficients are derived using the daily time series data between 1973-2003. The results are six sets of correlation time series. Then each time series is plotted in a scatter, which provides an intuition on stability or instability of the yearly correlation.

Finally, the trends are analyzed based on the scatters, and conclusions are drawn on implications of the study in international investing.

## Major Findings

The daily data of stock index and exchange rate are used to derive the single correlation coefficient for each country for the entire 31-year study period. In general, there exists a fairly strong correlation (either positive or negative) between the currency and stock markets in these countries over the period, as shown in Table 1. Canada has the strongest positive correlation coefficient of 0.8352, while Japan has the strongest negative correlation coefficient of -0.7985. The exception is France, which shows a very weak correlation of 0.1502.

TABLE 1: CORRELATION COEFFICIENTS BETWEEN THE CURRENCY AND STOCK MARKETS (1973-2003)

Country	Australia	Canada	France	Germany	Japan	UK
Correlation	0.7303	0.8352	0.1502	- 0.3446	- 0.7985	0.4642

These results contradict the findings by Solnik (1996) and others, which conclude that all studies point toward a very low correlation between stock returns and exchange rate movement.

Recall that the exchange rate is expressed in its local currency per US dollar. Then the negative correlation coefficients in Table 1 mean that better equity returns and currency appreciation can coexist. In their study on nine

emerging markets for the period of 1976-1997, Eaker, Grant and Woodard (2000) show that currency movements (primarily depreciation) have a dramatic impact on individual country returns and investors earn some of the best overall rates of return in countries whose currency was experiencing a rapid depreciation. In comparison, the results in table 1 show that investors in the developed markets can achieve high equity returns in countries whose currency appreciates, the examples are Japan and Germany.

The daily data are also used to derive yearly correlation coefficients for each of the six countries. As shown in Table 2, the yearly correlation coefficients between the currency and stock markets for each country display unstable patterns over a 31-year time period. For example, the range of correlation coefficients for Canada is between  $-0.8084$  (in 2003) and  $+0.8501$ (in 1978).

TABLE 2: YEARLY CORRELATION COEFFICIENTS BETWEEN CURRENCY AND STOCK MARKETS (1973-2003)

Year	Australia *	Canada	France	Germany	Japan	UK
1973		-0.1007	-0.5593	0.7410	0.1719	-0.3757
1974		-0.4285	0.7420	0.3268	-0.7267	0.1161
1975		0.5028	0.0004	0.4318	-0.2209	0.6175
1976		-0.4953	-0.8709	0.7155	-0.6171	-0.7957
1977		0.0186	-0.2686	-0.8257	0.4474	-0.6337
1978		0.8501	-0.9241	-0.7031	-0.8645	-0.3755
1979		-0.4054	-0.6863	0.5387	0.3163	-0.2600
1980		-0.0679	0.3979	-0.5211	-0.8031	-0.7993
1981		0.2376	-0.7678	0.5415	0.8233	0.2938
1982		-0.6609	-0.8273	-0.1567	-0.4767	0.8200
1983		0.5022	0.9650	0.7731	0.1106	0.4581
1984		-0.5375	0.6532	0.5971	0.1649	0.7094
1985		0.5660	-0.4886	-0.9247	-0.5982	-0.4905
1986		-0.6278	-0.7516	0.2751	-0.8850	-0.3643
1987		-0.0276	0.7740	0.8788	-0.2547	0.2512
1988		-0.7135	0.6962	0.6115	-0.1460	0.3068
1989		-0.6845	0.0440	-0.1455	0.6300	0.7337
1990		0.4413	0.8393	0.8432	0.6066	0.6253
1991		-0.1557	0.6169	0.7186	0.4790	0.7500
1992	-0.8233	-0.7735	0.6158	0.6674	0.1188	0.7150
1993	0.5163	0.7996	0.7074	0.5726	-0.8934	0.1699
1994	0.7721	-0.6811	0.8946	0.6361	-0.0740	0.6099
1995	0.0399	-0.7292	-0.2824	0.1209	0.8862	0.4945
1996	-0.2012	-0.6025	0.8157	0.7147	-0.3398	-0.7326
1997	0.2879	0.3569	0.8844	0.9177	-0.8092	0.0476
1998	-0.4815	-0.7572	0.1976	0.3791	0.4142	0.3485
1999	-0.3040	-0.5620	0.7688	0.6890	-0.6342	0.5778
2000	0.4096	0.0209	0.2251	-0.5313	-0.5166	0.1146
2001	-0.3708	-0.7452	-0.0008	-0.0001	-0.2107	0.0377
2002	0.6094	0.1301	0.9041	0.9022	0.4340	0.9553
2003	-0.7757	-0.8084	-0.6592	-0.6973	-0.7450	-0.6111

\* Data are not available from 1971 to 1991.

Also as shown in Table 2, the correlation coefficients are not consistent across countries in the same year, i.e. there is a mix of positive and negative correlation coefficients among six countries in the same year. For example, in 1992 the correlation coefficients for six countries are -0.8233, -0.7735, 0.6158, 0.6674, 0.1188, and 0.7150 respectively. The range is fairly wide. These results again contradict the findings by Solnik and others, which conclude that all studies point toward a very low correlation between stock returns and exchange rate movement. However, there are two exceptions: all six countries have positive correlation coefficients in 2002 and all six correlation coefficients are negative in 2003.

Each country is examined as follows:

**Australia**

The correlation coefficient between currency and stock markets is 0.7303 based on the daily data during 1992-2003 (data are not available between 1973-1991). Recall that the foreign exchange rate is expressed in Australian dollar per US dollar. Therefore a correlation coefficient of 0.7303 seems to indicate a strong positive correlation between the depreciation (appreciation) of the Australian dollar and the increase (decrease) of its stock index. Also recall that the causality of currency and stock markets is not of our interest in this study.

To provide intuition, the pairs of the daily data are plotted in Fig.1. The horizontal axis denotes the Australian stock index and the vertical axis the exchange rate of the Australian dollar per US dollar. While an upward pattern is evident, the scatter does not show a clear linear pattern. Therefore it would be too simplistic to conclude a strong positive correlation between the currency depreciation (appreciation) and the increase (decrease) of the stock index based on the correlation coefficient of 0.7303. A further analysis is required.

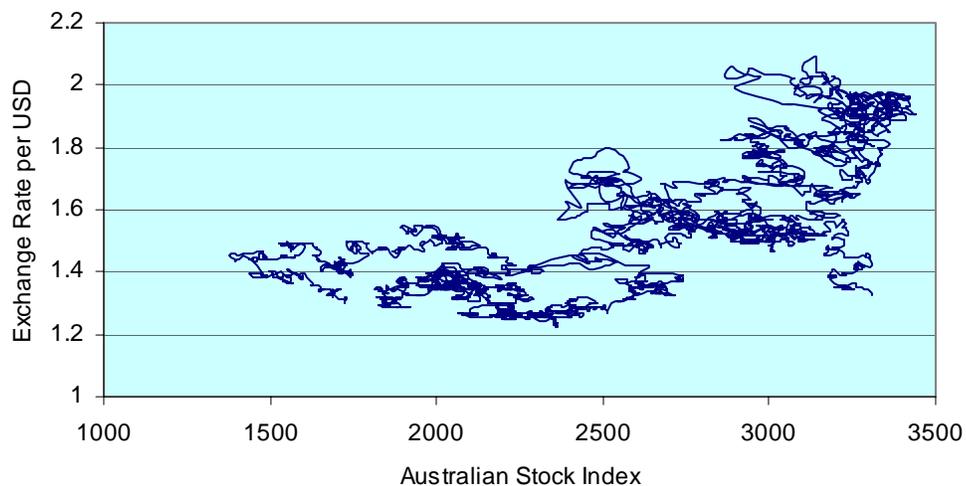


FIG. 1: AUSTRALIA'S FOREIGN EXCHANGE RATE AND STOCK INDEX (1992-2003)

Fig.2 illustrates the yearly correlation coefficients between the currency and stock markets. The horizontal axis denotes the time period in year and the vertical axis the correlation between the foreign exchange rate and the stock index (or simply FX-SI). For most of the 12 years, the correlation is fairly high (either positive or negative) and the range of the correlation is [-0.8233, +0.7757]. The yearly correlation is unstable not only in magnitude but also in direction (6 positive and 6 negative) during the entire study period. Therefore, on the yearly basis, there exists a strong positive or negative correlation between the depreciation (appreciation) of the Australian dollar and the increase (decrease) of its stock index.

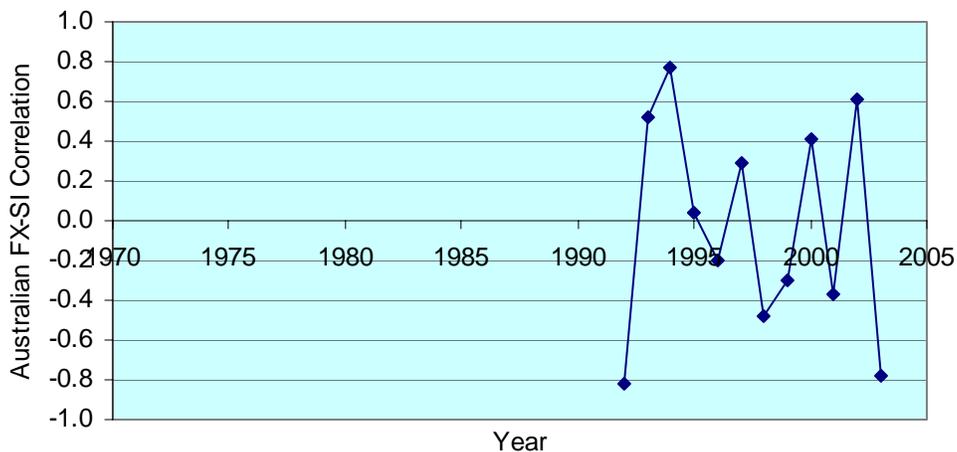


FIG. 2: AUSTRALIA'S YEARLY CORRELATION COEFFICIENTS BETWEEN ITS EXCHANGE RATE AND STOCK INDEX (1992-2003)

**Canada**

The correlation coefficient between currency and stock markets is 0.8352 based on the daily data during 1973-2003. It seems to indicate a strong positive correlation between the depreciation (appreciation) of the Canadian dollar and the increase (decrease) of its stock index. Solnik (1996) notices Canada as an exception and attributes to the dominant role of the United States for the Canadian Economy. The problem is that the same attribution analysis does not apply to Australia, which also has a high positive correlation coefficient.

The pairs of the daily data are plotted in Fig.3. While an upward pattern is evident, the plot does not show a clear linear pattern. Therefore it would be too simplistic to conclude a strong positive correlation between the currency depreciation (appreciation) and the increase (decrease) of the stock index based on the correlation coefficient of 0.8352.

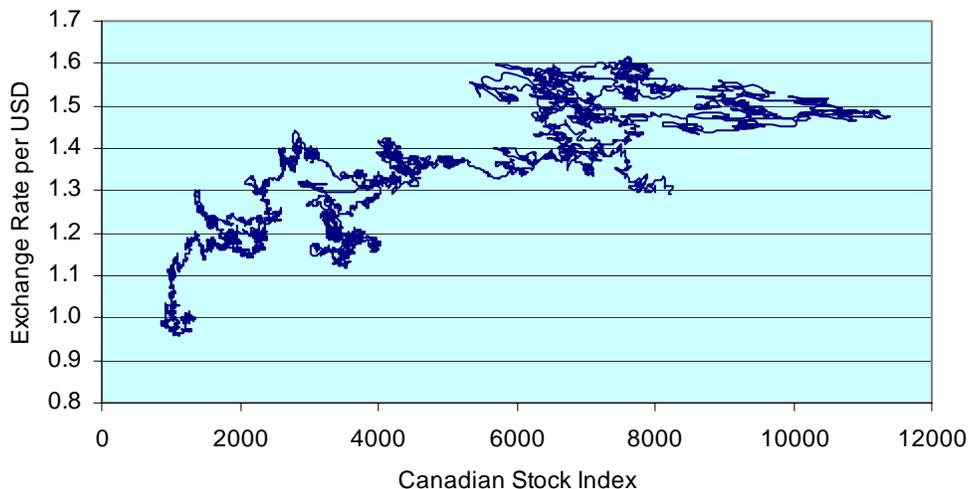


FIG. 3: CANADA'S FOREIGN EXCHANGE RATE AND STOCK INDEX (1973-2003)

Fig. 4 illustrates the yearly correlation coefficients between currency and stock markets. For most of the 31 years, the correlation is fairly high (either positive or negative) and the range of the correlation is  $[-0.8084, +0.8501]$ . The yearly correlation is unstable not only in magnitude but also in direction. Therefore, on the yearly basis, there exists a strong positive or negative correlation between the depreciation (appreciation) of the Canadian dollar and the increase (decrease) of its stock index.

An interesting fact is that the number of negative yearly coefficients is greater than the number of positive yearly coefficients (20 vs. 11). Therefore it is more likely to observe a negative than a positive correlation between the currency depreciation (appreciation) and the increase (decrease) of the stock index. This challenges the common wisdom that the depreciation of domestic currency benefits domestic economy, hence the stock market. It is more so in this situation because there is a very close tie between the Canadian and the US economies and the US constitutes more than 70% of Canada's export markets.

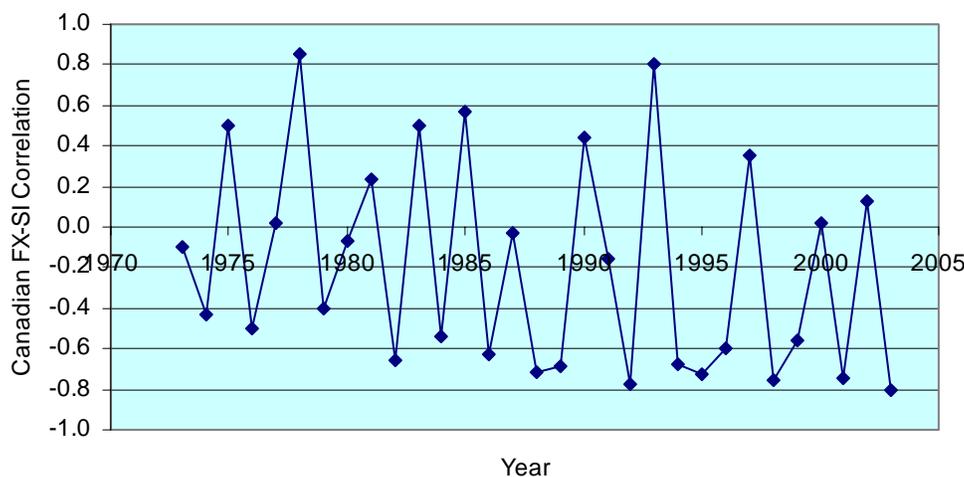


FIG. 4: CANADA'S YEARLY CORRELATION COEFFICIENTS BETWEEN ITS EXCHANGE RATE AND STOCK INDEX (1973-2003)

### France

The correlation coefficient between currency and stock markets is 0.3110 based on the daily data during 1973-2003. It seems to indicate a weak positive correlation between the depreciation (appreciation) of the French currency and the increase (decrease) of its stock index.

The pairs of the daily data are plotted in Fig.5. Overall, the plot shows a non-linear pattern and therefore the correlation coefficient of 0.3110 does not meaningfully explain the relationship between currency and stock markets. However, an upward sloped linear pattern exists when the stock index value is approximately above 500, which represents a large part of the plot. This indicates a convergence from an unstable to a relatively stable pattern.

Fig.6 illustrates the yearly correlation coefficients between currency and stock markets. For most of the 31 years, the correlation is fairly high (either positive or negative) and the range of the correlation is  $[-0.8084, +0.8501]$ . Therefore, on the yearly basis, there exists a strong positive or negative correlation between the depreciation (appreciation) of the French currency and the increase (decrease) of its stock index.

An interesting fact is that there are only two negative yearly coefficients between 1987-2003. Therefore it is likely to observe a positive correlation between the currency depreciation (appreciation) and the increase (decrease) of the stock index during this time period. This confirms that the correlation coefficients converge from an unstable to a relatively stable pattern with a positive slope over time, as shown in Fig.5. This also agrees with the common wisdom that the depreciation of domestic currency benefits domestic economy, hence the stock market.

The yearly correlation coefficients provide more meaningful information regarding the relationship between the currency and stock index markets when there is a non-linear pattern over the study period.

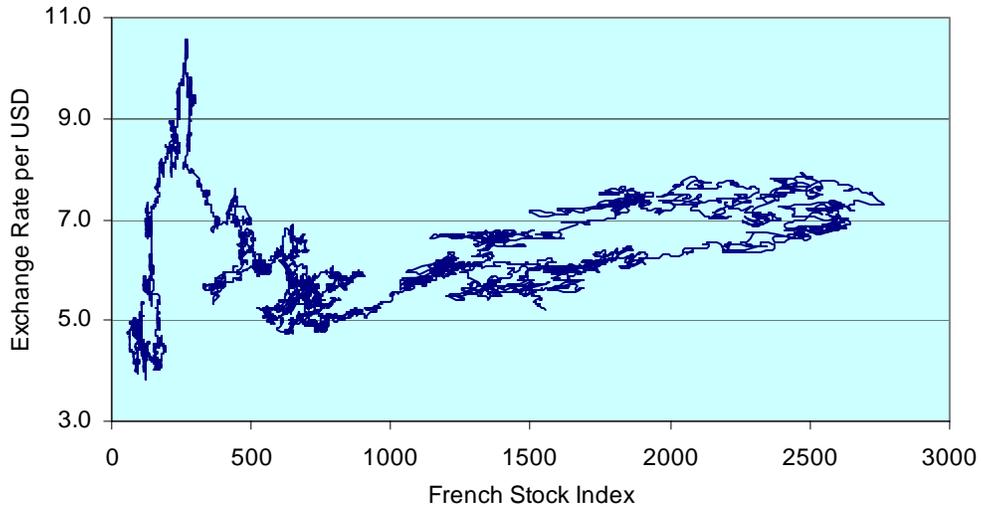


FIG. 5: FRANCE'S FOREIGN EXCHANGE RATE AND STOCK INDEX (1973-2003)

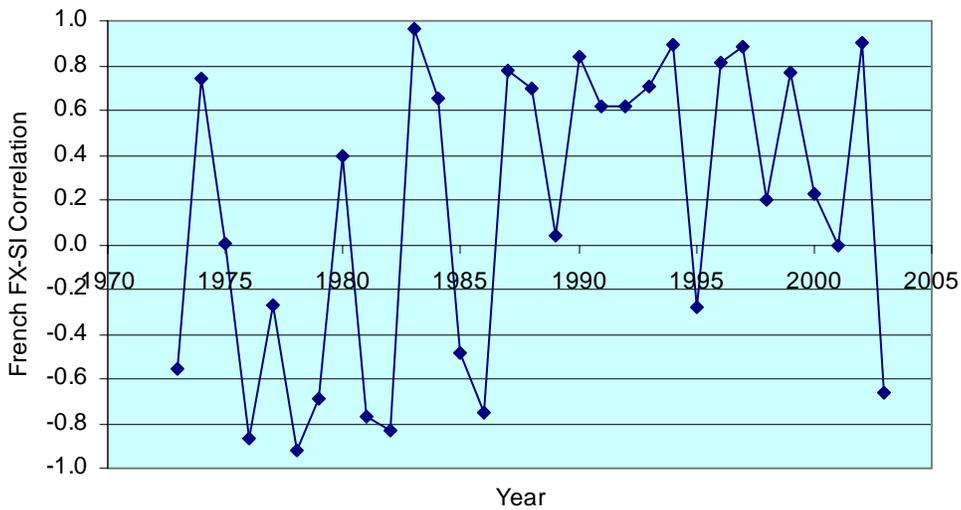


FIG. 6: FRANCE'S YEARLY CORRELATION COEFFICIENTS BETWEEN ITS EXCHANGE RATE AND STOCK INDEX (1973-2003)

**Germany**

The correlation coefficient between currency and stock markets is  $-0.3446$  based on the daily data during 1973-2003. It seems to indicate a negative relationship between the depreciation (appreciation) of the German currency and the increase (decrease) of the German stock index.

The pairs of the daily data are plotted in Fig.7. Overall, the plot shows a non-linear pattern and therefore the correlation coefficient of  $-0.3446$  does not meaningfully explain the relationship between currency and stock markets. However, an upward sloped linear pattern exists when the stock index value is approximately above 300, which represents a large part of the plot. This indicates a convergence from an unstable to a relatively stable pattern. In fact, there is a similarity between Fig.7 (Germany) and Fig.5 (France).

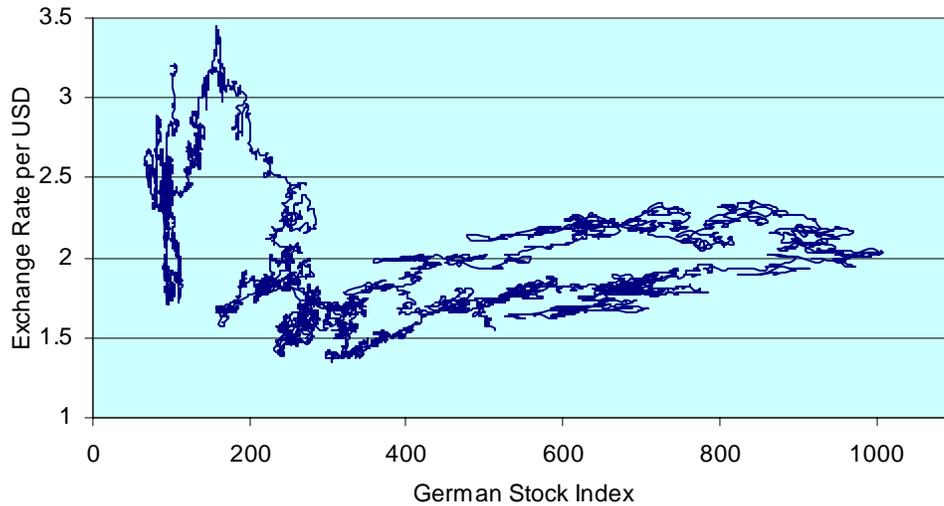


FIG. 7: GERMANY'S FOREIGN EXCHANGE RATE AND STOCK INDEX (1973-2003)

Fig.8 illustrates the yearly correlation coefficients between currency and stock markets. For most of the 31 years, the correlation is high (either positive or negative) and the range of the correlation is  $[-0.9247, +0.9177]$ . The number of positive yearly coefficients within the range of 0.2 and 1.0 is greater than the number of negative yearly coefficients within the range of  $-0.2$  and  $-1.0$  (21 vs. 6).

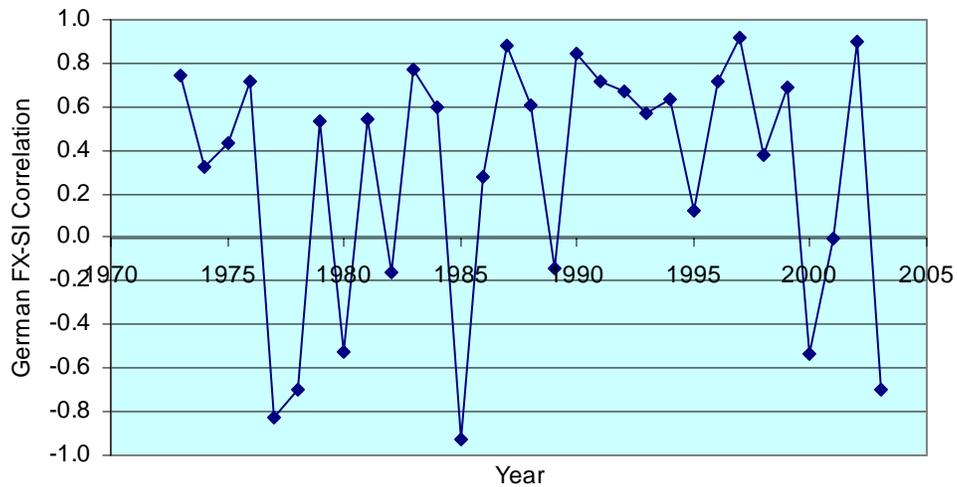


FIG. 8: GERMANY'S YEARLY CORRELATION COEFFICIENTS BETWEEN ITS EXCHANGE RATE AND STOCK INDEX (1973-2003)

Therefore, on the yearly basis it is much more likely to observe a positive than a negative correlation between the depreciation (appreciation) of the German currency and the increase (decrease) of its stock index over this time period. This agrees with the common wisdom that the depreciation of domestic currency benefits domestic economy, hence the stock market.

An interesting fact is that there are only two negative yearly coefficients between 1986-2003. This confirms that the correlation coefficients converge from an unstable to a relatively stable pattern over time, as shown in Fig.7.

**Japan**

The correlation coefficient between currency and stock markets is  $-0.7985$  based on the daily data during 1973-2003. It seems to indicate a strong negative correlation between the depreciation (appreciation) of the Japanese currency and the increase (decrease) of its stock index.

The pairs of the daily data are plotted in Fig. 9. Overall, the plot shows a non-linear pattern and therefore the correlation coefficient of  $-0.7985$  does not meaningfully explain the relationship between currency and stock markets. However, a slightly upward sloped linear pattern exists when the stock index value is approximately above 300, which represents a large part of the plot. This indicates a convergence from an unstable to a relatively stable pattern.

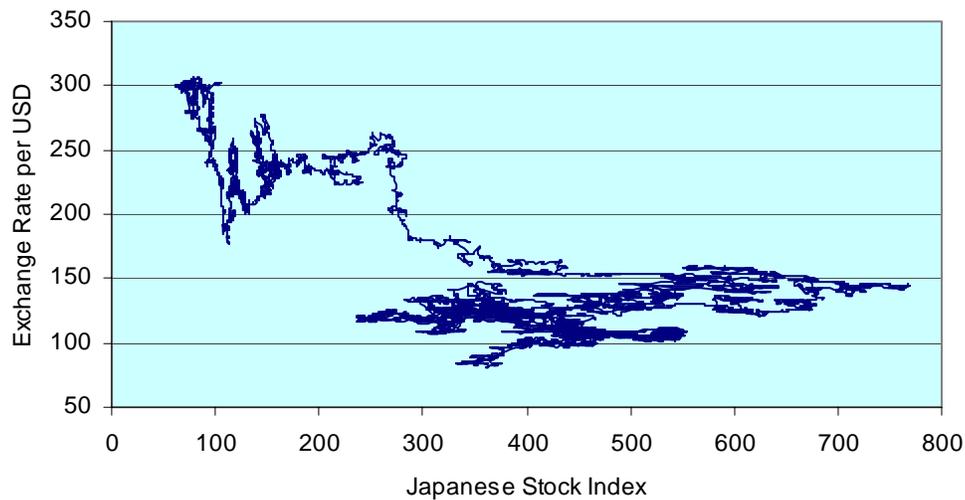


FIG. 9: JAPAN'S FOREIGN EXCHANGE RATE AND STOCK INDEX (1973-2003)

Fig.10 illustrates the yearly correlation coefficients between currency and stock markets. For most of the 31 years, the correlation is high (either positive or negative) and the range of the correlation is  $[-0.8973, +0.8862]$ . The number of positive yearly coefficients within the range of 0.2 and 1.0 is less than the number of negative yearly coefficients within the range of  $-0.2$  and  $-1.0$  (9 vs. 16). Therefore, on the yearly basis it is more likely to observe a negative than a positive correlation between the depreciation (appreciation) of the Japanese currency and the increase (decrease) of its stock index. Once again, this challenges the common wisdom that the depreciation of domestic currency benefits domestic economy, hence the stock market.

However, the yearly correlation is unstable during the entire study period and does not confirm the convergence from an unstable to a relatively stable pattern shown in Fig.9.

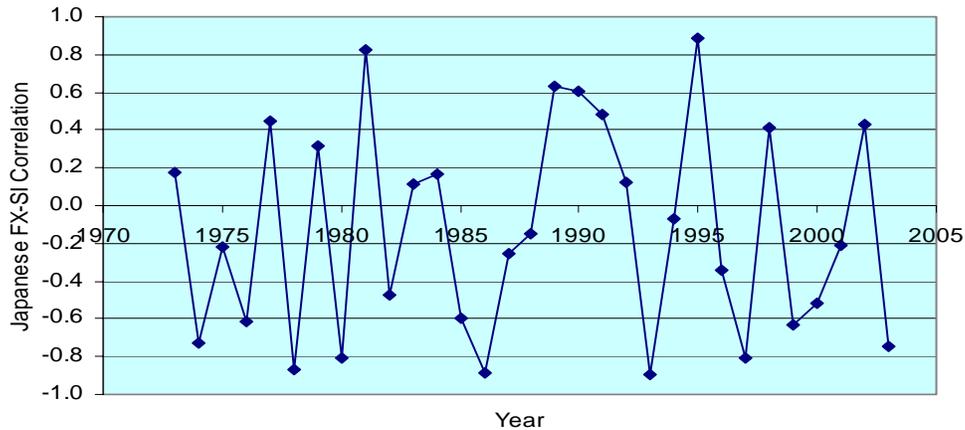


FIG. 10: JAPAN'S YEARLY CORRELATION COEFFICIENTS BETWEEN ITS EXCHANGE RATE AND STOCK INDEX (1973-2003)

**United Kingdom**

The correlation coefficient between currency and stock markets is 0.4642 based on the daily data during 1973-2003. It seems to indicate a fairly positive correlation between the depreciation (appreciation) of the British currency and the increase (decrease) of its stock index during the study period.

The pairs of the daily data are plotted in Fig.11. Overall, the plot shows a non-linear pattern and therefore the correlation coefficient of 0.4642 does not meaningfully explain the relationship between currency and stock markets. However, a slightly upward sloped linear pattern exists when the stock index value is approximately above 1000, which represents a large part of the plot. This indicates a convergence from an unstable to a relatively stable pattern. In fact, there is a similarity among Fig.11 (UK), Fig.7 (Germany) and Fig.5 (France).

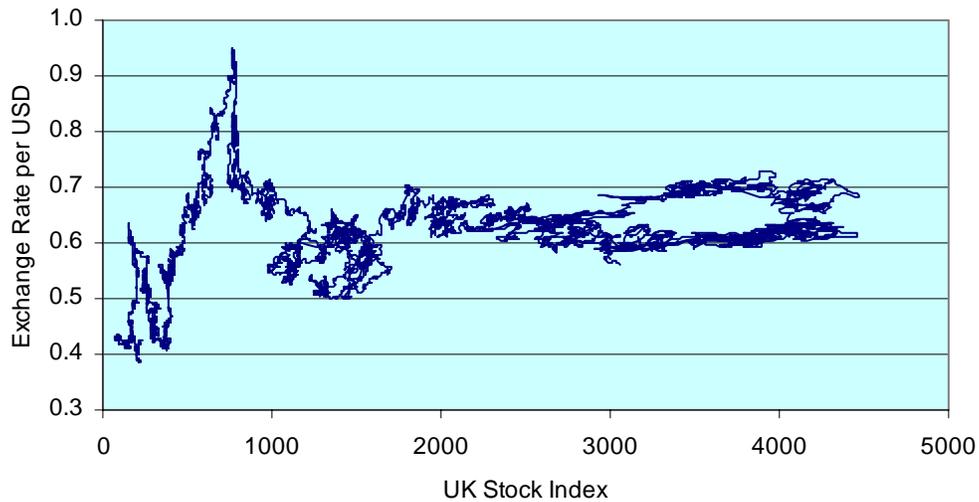


FIG. 11: UK'S FOREIGN EXCHANGE RATE AND STOCK INDEX (1973-2003)

Fig.12 illustrates the yearly correlation coefficients between currency and stock markets. For most of the 31 years, the correlation is high (either positive or negative) and the range of the correlation is [-0.7993, +0.9553].

The number of positive yearly coefficients is greater than the number of negative yearly coefficients (21 vs. 10). Therefore, on the yearly basis it is more likely to observe a positive than a negative correlation between the depreciation (appreciation) of the British currency and the increase (decrease) of its stock index.

An interesting fact is that there are only two negative yearly coefficients between 1987-2003. This confirms that the correlation coefficients converge from an unstable to a relatively stable pattern over time, as shown in Fig.11. This also agrees with the common wisdom that the depreciation of domestic currency benefits domestic economy, hence the stock market.

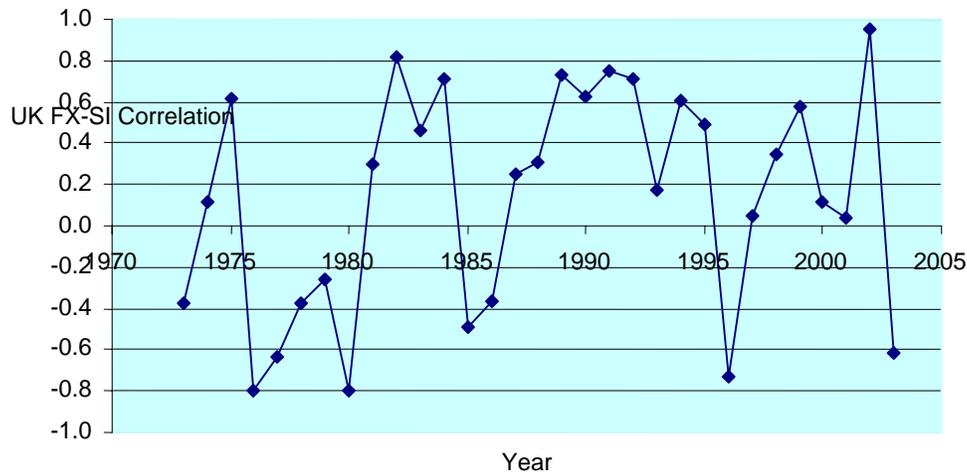


FIG. 12: UK'S YEARLY CORRELATION COEFFICIENTS BETWEEN ITS EXCHANGE RATE AND STOCK INDEX (1973-2003)

## Conclusions

Using the daily time series data between 1973-2003, this paper examines the correlation between the foreign exchange and stock index movements in Australia, Canada, France, Germany, Japan, and United Kingdom. The six countries have a broad representation of geographical regions and currency blocs, and they are under the floating exchange rate regime during the time period. The stock index in each country is measured in its local currency. The exchange rate is expressed in its local currency per US dollar, considering the US dollar is the most influential currency to these countries during the study period.

The objective is to answer three research problems. First, is there a strong or weak correlation between the currency and stock markets over a long time period? Second, are these correlation coefficients increasing or decreasing over time? Or they are simply unstable and trendless? Finally, what are the implications of the empirical results?

The results show that strong or weak correlation (either positive or negative) exists among six countries for the entire 31-year time horizon. Australia and Canada show strong positive correlation coefficients, United Kingdom and France have moderate and weak positive coefficients respectively, and Japan and Germany have strong and moderate negative coefficients respectively. On the yearly basis, a range of correlation from strong negative to strong positive is observed in all six countries. For example, the widest range of correlation coefficients of [-0.9247, +0.9177] occurs in Germany, and the "narrowest" range of [-0.8084, +0.8501] in Canada.

The results also show that the yearly correlation coefficients converge from an unstable to a relatively stable pattern over time in France, Germany and the United Kingdom. This relative stable pattern of positive correlation coefficients agrees with the common wisdom that the depreciation of domestic currency benefits

domestic economy, hence the stock market. Interestingly, these three countries are European countries and belong to the same currency bloc. On the other hand, the yearly correlation does not display any trend or convergence and is unstable over time in Australia, Canada and Japan. A further study is required to explain such difference.

The findings contradict some of the previous empirical studies, which state a very low correlation between stock return and exchange movement. The findings are also distinct from a previous empirical study on emerging markets, which shows investors earn some of the best overall rates of return in countries whose currency is experiencing a rapid depreciation. In comparison, our study shows that investors in the developed markets can achieve high equity returns while their currencies appreciate.

Therefore the findings have important implications in international investing. If currency and stock markets are not correlated or weakly correlated, international equity managers may consider currency and equity selection separately. However, if the two markets show a relatively strong correlation, managers may have to reconsider their strategy. Specifically, currency and stock market forecasts should be integrated and currency and stock management in a portfolio should also be integrated.

Currency issues make the management of global portfolios more complex, but not necessarily more difficult than managing domestic portfolios. Particular care is needed when the portfolio uses separate managers for domestic and foreign asset classes as well as for currency management.

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## **FDI: Regional Dimensions and their Implications (A Case of Slovakia)**

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### **Abstract**

The paper deals with some important aspects of the regional dimension of the FDI especially from the point of view of the experiences from the Slovak Republic. In this context the following main regional aspects are analyzed: regional development strategy, visibility, certainty, commitment, financial and other incentives, the role of local/regional actors and of strategic investors. The paper presents some results of the Joint Research project of the Faculty of Management of the Comenius University of Bratislava and the University of Pittsburgh under the framework of NISPA/NAASPA Project funded by the USAID.

### **Introduction**

One of the most important questions for any investor in the final stage of the whole investment process - except of course of FDI coming through privatization where such a question is irrelevant - the key question is where to place particular FDI. That is also that part of the whole pro-investment strategy we call as a regional dimension of the whole pro-investment strategy. It is quite clear that the country offering more investment sites, more industrial parks, more locations for harboring FDI, has also more chances that the potential investment will finally come to that country. To be offering future investment sites in the form of the so-called and literally "green fields" being lost somewhere in an almost inaccessible countryside is definitely not the most attractive approach of the host country regarding the regional dimension of the FDI. It is quite evident that a country offering e.g. eight industrial parks has lesser chances than a country offering tens or hundreds of various specialized categories of industrial parks all over the country, etc. As pointed out by C. Mitchell-Weaver (1) in his Research Notes: "... FDI promotion is increasingly the central focus of regional development process across Europe." In general also on the basis of his recommendations we could identify following eight main factors regarding the regional FDI attraction:

- Regional development strategy
- Regional visibility
- Regional certainty
- Regional commitment
- Regional financial and other incentives
- Coordination of local (regional) actors
- Role of pilot and/or strategic investor in a region
- FDI and "learning" regions.

In the next parts of this paper we are going to deal with the regional dimension in FDI from the above eight factors as being applied and/or also not in the Slovak Republic as one of the latest new members of the EU that by itself being one of the most successful regions in the world regarding record high FDI inflows. That all in spite of the fact that at the same time it is one of the most expensive regions for FDI and thus clearly demonstrating that low costs, cheap labor, etc. are not so important for foreign investors as it is so widely believed.

### **Regional Development Strategy**

In view of the above, it is of utmost importance; the countries have a well-defined and officially approved national strategy for the regional development. The experience of the existing EU member states has clearly demonstrated that in addition to various other important aspects (regional agencies, regional projects, co-funding, etc.) of such

a national strategy, one of the most important places belongs to the proper definition of a region as such. On the basis of that then it is necessary to determine their total number and thus also an ability to draw the particular funds from the Regional policy of the EU. In this connection it would be beneficial also for the Slovak Republic to be able to learn more from the experiences of some small current member states of the EU. Thanks to their good regional policy they have managed to attract not only funding from the EU but also record high FDI inflows. In principle there is often a logical sequence between them. First, especially in the case of poorer countries like is also Slovakia, it is important to be able to the full amount obtain the funds from the EU as such funds can create suitable infrastructure for the later inflows of FDI. Hence, as the first task in this respect it is important to make as much of the territory of the country to be eligible for funding from the EU regional policy. It is then e.g. no surprise that for example Ireland and Portugal have during their membership in the EU, already several times changed their regional structure just in order to attract as much as possible of the regional funding from the EU.

In this sense it seems to be not very wise to make Bratislava region bigger than are the official limits of the city itself. The more neighboring districts are incorporated into the Bratislava region the bigger territory of the Slovak Republic is going to be excluded from the regional funding through the EU. We have to realize that formally the capital of Slovakia is well above the required 75% of the average of the EU GDP per capita with its average to be close to 100% of that average. Hence, if some neighboring and less developed districts are attached to Bratislava they are still not lowering that average below those required 75%.

The second important indicator in this respect is the number and the size of regions. According to the EU regional practice, an average region in the Union has about 1.5 million citizens. According to this EU practice, it looks like that the Slovak Republic instead of current small 8 regions has to have only about 3 regions and the City of Bratislava as a national capital. Such regions are generally considered as big enough to be able to be self sufficient and effectively self-governable. From the point of view of FDI such regions are also from all various aspects more attractive than some mini regions without necessary and adequate administrative capacities, economic power, development strategy, institutions, etc. In view of this, the regional policy of any EU member state including Slovakia has to be pragmatically subordinated to the requirements of the EU regional policy than to political and power ambitions of regional politicians. The experiences of Ireland, Portugal and Spain are clearly demonstrating that a poorer EU member could develop the necessary regional infrastructure for FDI inflows only on the basis of the EU regional and cohesion funding. That is also the case of Slovakia.

## **Regional “Visibility”**

Every region that has any ambitions to become a focus of foreign investors’ attention and of FDI inflows has to have a kind of suitable and needed regional visibility. Especially in the case of such a country like Slovakia - that by itself has not been very visible and still being often mixed up with Slovenia, Yugoslavia or with the former Czecho-Slovakia. Hence, it is of utmost importance to present and promote the whole country also through its individual regions. There are several well known and verified ways and means how to promote regional structure and dimension of the country among the chief investor groups:

- One is of having its own regional representative offices abroad. It does not mean that every individual region has to have its own office e.g. in Brussels as the "capital" of the EU, in other major cities of the EU or in the world. But it could be organized also on the joint basis for all or several of Slovak regions. Especially, if individual regions do not have enough experiences or staff for such a promotion and representation. If such a region promoting staff is not able to comprehend an inquiry in a foreign language than it is better not having such a regional "visibility".
- An another important vehicle for the increasing a regional visibility of the Slovak regions is again a better functioning of the official Slovak diplomatic missions i.e. embassies, trade missions, consulates, etc. It is especially concerning those that are in or close to the major potential sources of FDI inflows like member states of the EU, the USA, Canada, some Arab countries, "tigers" from the South East Asia, etc. Again less various embassies that are mostly hoisting only the national flag and their replacement by regional sections attached to some embassies of the above preferred sources of FDI would be much cheaper and more efficient than is the

existing vast but to the large extent, from the economic point of view, useless structure of the Slovak diplomatic missions.

- An important potential for increasing a regional visibility could be the existing network of various honorary consulates, etc. Mostly they do not have any specific mission regarding regional aspects of the economic dimension of the country they are serving for. Especially e.g. in the USA, more promotion of the regional dimension of the Slovak Republic could among our countrymen increase their awareness and interest in helping the development of the regions of "their ancestors". Again experiences with the Irish community in the USA and their role in making of the Republic of Ireland a current economic "tiger" also through massive FDI inflows from the USA could serve as an example and inspiration also for the Slovak Republic and its regions.
- The experiences of many successful countries in attracting FDI inflows have shown that one of the most efficient vehicles for achieving regional visibility is through the promotion of regional attractive tourist destinations like in case of Spain, Portugal but also Austria, Switzerland, etc. In this connection we made two fact finding missions to the High Tatras as the most famous tourist destination in Slovakia. One in summer and one in winter and the results have been quite shocking ones. In comparison with the recent years there has been still less and less tourists and especially those from the so-called Western countries. Except of few citizens of the former GDR there were only very few of them from other EU countries. What was even more shocking it was the fact that even Slovak visitors were in a very short supply. But the reason is quite clear, since 1970 World championship in Nordic Skiing, there was no substantial improvement and/or innovation in the originally created infrastructure and services, etc. but an enormous increase in prices and various fees, etc.
- However, the cheapest and in many respects the most efficient approach how to increase visibility of the Slovak regions is again as in many other areas through Internet and World Wide Web. More adequate representation and presentation of the Slovak regions e.g. on the web site of SARIO could have more positive impact and effect regarding the visibility of the particular regions than utilization of any other of the above mentioned ways and means. This is at the same time also the cheapest and at the same time most efficient way of promotion and accessible anywhere in the world. If not only the biggest TNC are able through e-commerce currently carry out the multi- billion business and trade operations then on the much smaller scale of the visibility of the Slovak regions it has to be feasible as well.

In general, the issue of visibility of Slovak regions needs just some more coordinated effort of the ministries concerned as e.g. those being responsible for regional development, interior, foreign affairs in close cooperation with regional authorities themselves and SARIO. Through above but also other ways and means it would be possible to achieve also for the Slovak regions the same effect that has been a long years practice for many regions in the EU. After all it would not be nothing new, just practical implementation of the EU strategy on "the Europe of Regions" also in the conditions of the Slovak Republic. For such an implementation it is definitely not needed to wait until the country will become also an official member of the EU.

## **Regional Certainty**

It is of utmost importance that all information a potential foreign investor will obtain through the above regional visibility program will not remain only on the level of information. The regions themselves must be in every respect prepared for accommodating any potential foreign investor i.e. to offer them a kind of regional certainty. In brief it means that they have to become very soon assured and/or convinced they have chosen the right region for their FDI. First of all it means that the particular region has to be easily accessible. Accessibility definitely should not mean a six-hour drive on the roads of a mediocre quality, as it is currently needed between Bratislava and Kosice for a distance of less than 400 km. For example in terms of the U.S. investors such a distance means definitely not more than four hours of "drive" on a perfect divided highway. Unfortunately, during a winter period it could be almost out of any use, or it would take a whole night travel by "an express" train moving with a travel speed of about 60-70 km per hour. Currently, it is a case of connection between Bratislava and the Eastern regions of the country. Under such transport connection it could easily happen the first such a trip of a potential foreign investor will be also the last one.

In this connection it is perhaps worth to mention that Slovakia although being a small country has - with the maximal interstate distance of only about 500 km - inherited from the former federation and thanks also its former strategic position closer to the USSR and further from the former NATO eastern border an almost ideal network of six (!) regional airports. All six of them i.e. Piešťany, Trenčín, Žilina, Sliac, Poprad, Košice have been meeting also standards for international air transport. Hence it is quite feasible that a foreign investor could reach the potential investment sites anywhere in the country in less than three hours if it were a combination of an air and car transports. What is already a reasonable comfort acceptable according any international standards. Of course it does not mean that to all these various airports should exist regular flights but some kind of charter or air taxi flights should be available what unfortunately is not a case right now.

In addition, when finally a potential foreign investor is already in the particular region it is again necessary to provide for him a one-stop full-time service through the particular regional pro-investment agency. It is not acceptable that a potential foreign investor with a map and compass would start to look for the particular investment site. Hence, in view of the necessity to achieve the particular regional certainty, it is necessary to build up and develop a network of regional offices of the pro-investment agency that professionally but also by language proficiency will be able to offer to potential foreign investor an one-stop and full-time service. In this connection it is perhaps again worth to make a comparison between the Slovak Republic and its V4 partners. The Czech Republic has in its eight regions altogether 14 CzechInvest regional offices. In addition there are about 100 industrial parks all over the country and in principle each of them is ready to accommodate a new foreign investor. One could say that in the regions of the Czech Republic altogether 114 entities are prepared to take "care" for new foreign investors. In Hungary are, in addition to about 150 industrial parks, existing altogether 16 ITDH regional offices spread evenly in a country that has about the same West-to-East length as Slovakia. Again just for comparison, the Slovak Republic has been until recently nominally offering altogether six industrial parks. In addition, five SARIO regional offices are not covering even each of eight regions and are spread quite unevenly across the country. There are left rather big "white" spots of uncovered regions especially in the most problematic Eastern and Northern regions of the country. Under such conditions, unfortunately, the regional certainty of Slovak regions has still been more a question of the distant future than of the current reality. So far neither their accessibility nor readiness to accommodate foreign investors has not yet corresponded neither to the needs of the country nor foreign investors.

## **Regional Commitment**

The regional commitment means that the region is able to demonstrate that it is not only interested in "luring in" a potential foreign investor and benefit from the particular investment but that it is ready also to make some advanced "investments" of its own. As again quite properly pointed out by C. Mitchell-Weaver, the region has to demonstrate towards potential foreign investor a kind of a due hospitality irrespective if finally that investor will decide to invest in the region or not. In this connection it is again important a proper use of various psychological factors how to convince the potential investor that his/her investments are going to be beneficial not only for the particular region but that it will be again one of the success stories of the so-called win-win situation i.e. that the benefits will be equal for both sides.

In this connection, it is of utmost importance to demonstrate to the potential foreign investors that in addition to the business side of the deal, there are many various other benefits for them regarding the living conditions, social opportunities, recreation and sport facilities, cultural life, etc. It is important to realize that foreign investors are not only businessmen but also people who will have to live in the region for some longer period (we have still to remember that FDI mean a long term relation). They have their families, kids needing schooling; they have their cultural, sport or other hobbies, interests, etc. In this respect e.g. most of foreign investors in this respect appreciate our network of regional theatres, spas, national parks, wild life, winter sports facilities, etc. But on the other hand, in the most of Slovak regions outside Bratislava or Košice they have problems with schooling of their children in schools with instructions in foreign languages, adequate housing, availability of shopping malls, quality of regional roads and especially a very low knowledge of foreign languages for basic business but also general daily

communications. In this respect unfortunately the Slovak republic is considered as the country with the worst command of foreign languages among all V4 countries.

It is then of utmost importance, that already during the first fact finding mission, the agenda for a potential foreign investor is not only around and about the amount of investments and when they start to flow into the region. An equal attention has to be paid also to above various aspects of living in the region. In this respect many regions of Slovakia have often much more to offer than it is generally known but it has also to be offered and very actively and convincingly also to potential foreign investors. In this respect as a good example could serve all the activities as taken recently by the Zilina authorities when trying to convince the Hyundai investor to invest in their region. It is just pity that they could not offer also a ready-made industrial park.

In summary, the commitment of the region means that the region is not only interested in getting the particular FDI but is also well aware of the necessity to offer to potential foreign investors a good standard of working and living conditions for them and their families. As we know, FDI it is not a short term, ad hoc affair but according to the particular definition a long-term commitment and relation from the both sides. As such it requires also suitable working and living conditions for all those who will accompany the particular FDI in the region from the investor's country, company, etc. Especially, important is also a regional commitment in the case of the so called "green-field" investment when in difference e.g. to FDI coming through privatization it is necessary to help and assist foreign investor in the whole range of administrative and other related matters, permissions, etc. as needed for any kind of construction. After all it is well known that in this country just for constructing an ordinary family house it is necessary to obtain over fifty various permissions, seals, signatures, etc. The registration of a new company i.e. also in case of FDI could last even more than three months and again is an indicator that the particular region would be too much committed to having that investment in the region not only de iure but also de facto.

Hence it is clear that without a real regional commitment of all involved, it is almost impossible to get into regions any significant and especially not "value adding" FDI through also other ways and means than a kind of lucrative privatization deal. In this case, no interventions from the central levels could solve the problem, the most of administrative and other actions have to be carried out directly in the regions and through the real commitment towards FDI inflows from the side of the whole regional administration!

#### **Regional Financial and other Incentives**

To the above regional commitment are also very closely related various regional financial incentives. In principle, the regional commitment is nothing else or more than a standard courtesy and hospitality extended towards somebody from whom we expect in this particular case FDI represented mostly by investor's own capital.

If such a commitment is considered as a kind of the common standard, then every region that wants to succeed in luring in FDI must offer also something in addition. In most cases and also countries it is called as "a regional investment package" i.e. a package of various benefits that are ready and expecting any potential investor who decides to invest in the particular region.

In this connection it is important to have such a package ready i.e. not start with its compiling when already a potential investor is in the country. It means such a package must be available in advance and in the form easily accessible to investor while he was just searching for a suitable place for his FDI. The best place for such a modern "advertisement" is Internet as it is e.g. in case of various regional incentive packages in the case of CzechInvest Prague. Such a regional incentive package has to have some structure and some differences from a region to another region. In order to have a really comprehensive set of regional financial incentives it is necessary to have at disposal:

- A thorough analysis of all regions
- Categorization of them according to certain criteria of eligibility for some kind of regional incentives depending upon the EU rules and regulations for regional assistance
- The same is needed regarding the national schema of various incentives e.g. tax reductions, for creating new jobs, for re-qualification, etc.
- Schemas of various regional incentives being available from the regional government
- Different local incentives including such as local taxes, various fees, price and methods of a land acquisition, etc.

On the basis of all the above it is only possible to prepare the so-called a regional map of the country with all those various particular regional and local incentive schemas that clearly state to any potential foreign investors what they could expect if they decide to invest in one or other region or particular locality. Such a modern GIS - Geographic Information System placed on Internet with the regional map and corresponding "investment incentives packages" brings often more benefits than a network of various and expensive representative offices with not always the best prepared representatives. According to C. Mitchell-Weaver in compiling such regional incentive packages and their regional maps it is necessary to take into account the following main categories of potential incentives as applied in the world and as long as allowed by the particular national or supranational i.e. for example the EU legislations:

- Corporate tax rates cuts. Since 1<sup>st</sup> January 2004 it is in the Slovak Republic on the very attractive level of 19 per cent only i.e. lower than in all neighboring countries
- Tax holidays
- Additional subsidies for job creation
- Extra subsidies for re-training
- Allowances or cuts on import duties for some kind of modern innovative technologies
- Lower investment requirements in order to become eligible for some kind of financial incentives
- Eligibility for incentives for all investors
- Reducing various export requirements
- Elimination and/or reduction of various reinvesting requirements
- Subsidies to costs of industrial parks construction
- Various local incentives, cuts in fees and taxes

In addition to the above various direct financial incentives, it is necessary to add and also suitably present various other regional and/or local incentives, benefits or just simply conditions effecting various kinds of businesses like:

- Cheap and qualified labor
- Regional or local research and development facilities like universities, colleges, various other similar institutions,
- Local availability of some natural resources including such very "natural" like water, a character of soil, clear air, etc.
- Meteorological conditions like summer and winter temperatures, direction and strength of winds, rainfall capacity, etc.
- Already existing production facilities
- Strategic foreign investors in the region
- Various other investors and producers
- Service agencies
- Central, regional and local government and administration bodies.

In general, in addition to the naturally expected regional commitment it is necessary to prepare for any potential foreign investors all necessary information and guidance to such an extent that they could help them to decide right for the particular region as the most beneficial for their investment needs even before visiting that region personally.. The more information is available regarding the particular region e.g. on Internet, the better it is for the decision of potential investor. On the other hand, the role of various incentives has not to be overestimated. As recently published in a report prepared by the business consultancy McKinley (Financial Times, 15 October 2003): "Incentives were not the most important factors driving location decisions of multinational companies, suggesting that most of the FDI would have been attracted without the incentives". Very often, incentives are reducing benefits for the host country mainly because the price of them, as we have already quoted in connection with incentives for car makers in Slovakia is so high that it is hard to compensate it by potential benefits is very difficult if not impossible at all. For example in Brazil, the subsidies led to over capacity and reduced productivity in the car industry. Hence from this examples also Slovakia should take a lesson and not to overestimate the role of

incentives as well as the role of car making industry. Any one-sidedness is dangerous and in final consequences harmful for national interests of the particular host country.

#### **Coordination of Local (regional) Actors**

One of the most important preconditions for the success of the region in attracting FDI inflows is to achieve a thorough coordination of all players and activities involved in the particular investment related "business". As again properly pointed out by our project team member C. Mitchell-Weaver, first of all, it is necessary to prevent in this respect any potential confusion of the potential and/or real foreign investor by any disharmony in promoting regional interests vis-à-vis the FDI inflows. All the conduct, contacts and information as provided to the potential foreign investor have to be well-coordinated and coming from one source.

There should not be any rivalry and/or competition between various regional players involved. Of course it is also desirable for every regional and/or local administration if the potential foreign investor settles down right in their territory but it is much more important to have him in the region as such. Especially, it is important in case of some first pilot foreign investors who are often just coming as a kind of the front liner or reconnaissance unit for bigger and more powerful strategic investor.

The common objective of all regional and local players has to be enhancing all regional and local capabilities, comparative advantages, etc. They always have to be presented not as a single, isolated ones but always as a part of already existing and/or soon-to-be created regional network that is able to take first class care for any potential investors regarding e.g. legal services, suppliers, construction firms, various types of "partnerships", matching programs, etc. From the very beginning it has to be clear to every investor that in "this region" he is welcome that he is not seen as a competitor to local business "mafia" (of course this does not mean any reference to any mafia as known from criminal movies but to rather closed circle of local businesses that do not like any new competitors in their territory of operations, as they exist anywhere in the world) but their long expected partner. It is also important that from the very first day being in the region, the foreign investor will have at hand, at his/her disposal own regional and/or local guide or advisor who will be permanently available for his needs.

It is of utmost importance, especially during the first most complex period of various preparatory activities, a company establishment, an introduction to all relevant local players and potential partners, establishing of initial contacts and especially in all the paper work that never and nowhere is an easy and simple job. It is of utmost importance that at least such a regional or local guide is well familiar with all regional and local specialties and peculiarities and has also all necessary contacts wherever needed. Last but definitely not least what unfortunately is not so uncommon in this country, a local guide and/or advisor is speaking the language of the particular foreign investor.

All involved local and regional players have to realize that foreign investor is not a tourist who just happened to come into the region for one or two weeks and afterwards will leave either for good or at least till the next year. As a rule, a foreign investor is never coming just like that. As we have already also mentioned, foreign investors are neither explorers nor researcher, etc. If they are coming to some region they are coming intentionally on the basis of some references, recommendations, their own intentions or on the basis of very good and impressive information they have gathered from some reliable source e.g. like Internet, etc. In view of that they are always coming in search of the best or at least relatively the most favorable business conditions or environment in the particular region. The well coordinated and properly organized first visit to the region could definitely very positively effect the final decision of the particular foreign investor in favor of the given region. It has to be also realized, that such a visit to a region is as a rule not a single one but a part to several similar places or even countries in the wider region hence it is of utmost important what will be the initial impression of a potential investor. Normally, such visits are not repeated, usually the first such visit is also the last one before the final decision. Although, the first or initial visits are important for bringing potential foreign investor into the region, the regional care should not cease just by the fact that the investor has decided to invest in the region.

The so-called "aftercare" for foreign investor is almost as important as the one extended to him/her before such a decision. It is necessary to help foreign investors as much as it is necessary in order they could start their intended business activities as soon as it is in the local and/or regional condition possible. The sooner it will be possible, the better it is for the particular region regarding new jobs, opportunities for local suppliers, partners, consumers, etc. and last but not least also for collection of particular taxes, etc.

In view of all these, it is not so important who is in charge of all this coordination of local and regional players. Most important is that it should be coordinated neither on a part time basis nor it should rely on a kind of some local patriotism or enthusiasm. All these activities have to be conducted according to the highest possible professional standards. Equally as foreign investor - at least a serious one - is intending to come to the region with some solid amount of his own funds and for some longer period of time, it is also from the other side necessary to put everything into the hands of real professionals. However, they should not be professionals in public relations but professional specialists in accommodating FDI. It is therefore of utmost importance that the particular host region has its own regional pro-investment agency. It is not so important if it is an integral part of some national pro-investment agency like SARIO or PAIZ or CzechInvest, etc. or an agency of the regional or local government or of some big regional company or some industrial or other park, etc..

But it is always of utmost importance that such an agency operating in the region is able to provide either by itself or in cooperation with some other partners good, high quality services to any potential and/or to already for the particular region decided foreign investor. What is in this connection also important, such a regional agency has to have also a reliable and sufficient source of funding. As a rule, usually the initial phases of attracting, "luring" foreign investor into the particular region are more costly than profitable. It is a logical consequence of the general understanding that such services for foreign investors are not subject of invoicing or any charges or fees.

#### **Role of Pilot and/or Strategic Investor in a Region**

One of the crucial and at the same time also the most complex roles of the regional dimension in FDI inflows is to acquire for the particular region the first foreign investor. As also a popular saying goes that "every beginning is difficult" then it is absolutely true regarding the first foreign investor. In this connection is often mentioned also the term of a pilot investor or a strategic investor. Although we would not like to open any terminological discussion regarding these important concepts it is worth to mention at least some distinction between them as in the investment practice they are often not interpreted quite correctly. In any case, both types of foreign investors are important for the future success of any regional strategy regarding FDI inflows.

Especially it is of utmost importance for any region just starting with its effort to attract foreign investors into its territory. Unfortunately, it is also the case of the most of regions in the Slovak Republic especially those being 100 or more kilometers from Bratislava. In this connection very often it is stressed that it is necessary to find a strategic investor for the particular region. In general it is quite mistakenly supposed that only such a strategic investor in the region could secure for the particular region any sustainable development. Although, according to many aspects such an approach could be almost an ideal one, the reality is often slightly different. As also experiences from other countries are showing, mostly it is very difficult to acquire as the first or so-called pilot investor the one that could fulfill also the role of the strategic investor. At least in that sense that it is the big, strong foreign investor being able to play for the particular region its role as "a locomotive" for any further sustainable economic development. In the most of the Slovak regions there has existed an idea that such a role could be played only by some big and strong TNC like are already in the Slovak Republic e.g. U.S. Steel, Volkswagen, Peugeot-Citroen, etc.

However, it has to be quite clear that as yet the Slovak Republic has not been ready and prepared to play a role of a host country for many of such big TNC as strategic foreign investors. In this connection it is necessary to state, that it is so because the country is small and has only rather limited internal market for such big investors. After all even the ten or more times bigger internal and much more solvent market would not create big difference in this respect. After all, successful countries in this respect that could serve as models also for the Slovak Republic are also not at all bigger in this respect than the Slovak Republic. But all of them like Singapore, Hong Kong, Ireland, etc. have something in common and what has so far been missing in the case of the Slovak Republic. What is in this connection the most important it is the fact that the country and especially its regions are not yet ready to play an adequate role in hosting such investment giants. There are several reasons for that:

- The country has not yet been sufficiently physically integrated into any regional integration grouping that would fully function as some kind of free trade area or customs union
- Although on the 1<sup>st</sup> May 2004 the Slovak Republic has become an integral part of the common market of the EU, it has been more from the legislative side of that than from the real physical dimension of such a common market (see e.g. limitations in a free movement of labor, still existing border controls, unconvertible currency,

etc.). As an example for such an unfavorable situation could be Greece. The country has been a part of the EU common market for almost 30 years but so far could not fully benefit of that. However, in that case it has been so mainly for some natural reasons of its geographic isolation among its neighbors as none of the Greek borders is an internal but all are external borders of the EU. Although this kind of geographic isolation is not the case of the Slovak Republic, its poor physical integration with other EU member states is not helping much in this respect. The only highway connection is still only with the Czech Republic and that one could hardly serve as a substitution for missing highways in all other directions towards potential markets including those in the East from the country. Moreover, if that highway has not have and for long will not have sufficient continuation on the territory of the Slovak Republic

- As the Slovak Republic has been permanently criticized by the EU for its insufficient preparations in using the regional, cohesion and other funds of the EU, it is not possible to expect that the country itself will be able to remove very soon and quickly the problems with its own regions and their pertaining underdevelopment including insufficient infrastructure, etc.
- Another natural obstacle for new big strategic investors to settle in the Slovak Republic is its poor foreign trade performance. All successful FDI host (big or small) countries are also big and successful trading (exporting) nations like Hong Kong, China, Ireland, Singapore, etc.
- Hence, if Slovakia would like to become similarly successful host nation for big TNCs then it must radically change the role of its diplomacy towards its economic dimension and make adequate and deep revision of the whole structure and staffing of its diplomatic missions. After all, after becoming a member of the EU there will be even less "classical" diplomatic work for its diplomatic missions, as under the Common foreign and security policy the most of traditional diplomatic tasks will be handled on the share basis with other members of the EU. Hence, the Slovak diplomats should mostly be re-oriented towards the promotion of nation's trade and investments interests! According to the latest available information on the British Foreign Service, more than a half of its staff is on the full time basis promoting British economic interests.

Achieving any substantial qualitative changes in all these existing obstacles will take a rather long period of time even after this year accession to the EU. We have still to remember experiences of the so far least advanced or so-called still "cohesion" members of the EU i.e. Ireland, Spain, Portugal, Greece. It took them about 20 years since acceding to the EU while their macroeconomic performance has substantially improved and became with exception of Greece also attractive destinations for FDI inflows. In this context according to their model it is necessary to adjust accordingly also the future regional strategy regarding strategic investors. Instead of "dreaming" about big strategic TNC playing this role e.g. in the car making industry it would be more realistic (and also cheaper regarding offered incentives) to focus more on luring in some other perhaps also smaller foreign investors from other sectors. After all no one among small and most successful hosts of FDI we refer to so frequently have based their success on a car making industry. There is no car making industry e.g. in the absolutely most successful "cohesion" country i.e. in Ireland. The same is also the case of other most successful destinations for the record high FDI inflows among the small countries i.e. Hong Kong, Singapore or Belgium or Luxembourg.

Hence, also in the case of the Slovak Republic it is almost for sure that 2 maximum 3 car producers are the utmost what could be expected from this sector regarding "strategic" FDI inflows. Similarly as Ireland, Hong Kong or Singapore also the Slovak Republic has to orient its regional strategy towards attracting into its regions more producers of various computer and other modern electronics related components than more mechanical mass production of cars. Moreover, for such very high costs into various incentives as we have presented them above. To the east from the Slovak borders and future external border of the EU there has been a large market exactly for that kind of high tech oriented production. The countries of the former Soviet Union are just expecting the real computer and e-business boom Therefore, this kind of FDI and related production could help Slovakia also in modernizing its production basis, manpower qualification, etc.

In summary it would be most beneficial for the regional dimension of the Slovak Republic if the main focus for attracting big strategic investors from machinery and/or car making sectors would shift to some other and smaller strategic investors from the area of high tech production that could gradually cover more and more regions in the Slovak Republic. One of the ways - well functioning and verified also in the world - would be to prepare

particular more specialized and value adding parks like technological, high tech, innovation, etc. To build such "light construction" parks is always much easier and investment less demanding than to prepare facilities for car making industry. According to very serious estimates based on the comparative analyses of the particular foreign experiences, just for the value of incentives to car makers i.e. 14 billion SKK, it would be possible to create in the high tech oriented productions or in small businesses at least ten times more jobs i.e. about 60-70 thousand of fine qualified jobs. Moreover such productions are less energy and materials demanding and much more environment friendly. Until the particular transport and infrastructure network will be building up, they should be located where the most natural conditions are for them i.e. along the existing border with the EU and from there gradually through classical spill-over also to other regions along the already existing highways and motorways. Slovakia has again to learn from experiences of other countries e.g. Hungary. Its initial FDI sites have been along the highway Budapest - Vienna. As that initial highway has started to spread to other directions from Budapest towards Miskolc in the East, towards Kecskemet in the South-East and Balaton in the South-West so also FDI followed in the same directions. As Hungarian experts pointed out in this connection, there has not yet been any spread of FDI from Budapest towards the former big heavy industrial center of Salgotarian. The main reason has been that in that direction there has not been any suitable road connection.

Again by an unwanted paradox about the same direction is also the most straight connection from Budapest to Slovakia and also to its - among the Hungarian tourists - most popular ski resorts around Donovaly, etc. But Slovakia that otherwise is so much interested in luring into the country FDI but also foreign tourists has not yet been able to build an adequate road connection in that promising direction. Although, Budapest with its almost 2 million potential tourists is from its northern outskirts just about 30-70 km from the Slovak border. Moreover, as we know Budapest and its area is the main concentration of FDI sites in the country including numerous industrial parks, etc. And we also know that FDI have strong tendency for an overflowing and spillover effects irrespective of national borders, etc. But, Slovakia has, also in this respect so far, done nothing to lure those overflowing investments from Budapest to flow also to the North. But...A very similar situation is already also in the East of Hungary and Slovakia. On the Hungarian side the highway linking Vienna-Budapest has already been extended up to Miskolc i.e. several kilometers from the Slovakian border. From that border is again only 25 km to Kosice that has not yet managed to attract in addition to U.S. Steel no other major FDI. Again if Slovakia would build a piece of highway from Kosice to the particular border, the spill over and overflow effect from Miskolc area. But... again one of the easiest, cheapest and fastest ways how to link the Eastern Slovakia region with its capital of Bratislava would be just to build a highway connection towards Miskolc and then use the existing highway up to Hungarian-Austrian border and make an highway exit to Bratislava, but... Otherwise, all these connections in a couple of months will be on the territory of the EU. In summary, for Slovakia it would need to co-build only three short highway connections from the existing Miskolc-Budapest-Gyor-Vienna highway to Bratislava, to Komarno/Sturovo, Kosice. By those very short connections, three most southern regions of Slovakia would be linked to an existing trans-European highway and also ready for a spillover effects of FDI located on that highway also to the North i.e. Slovakia. The same effect could be achieved also regarding Hungarian tourists for Slovak ski resorts, spas, etc.

Otherwise, however, also those Southern Slovak regions will remain - although for different reasons - but equally "free" from any foreign investors like it is in many regions of Greece. The Slovak Republic should not just wait until those connections will be finished thanks also to potential funding from the EU. In the meantime the country and especially its regions have, in their pro-investment strategy; to focus on whatever potential (but serious!) pilot foreign investors would be interested in investing in the country or in any of its regions. According to that make also all necessary preparations and highway connections. That would be much more realistic approach than "dreaming" about big strategic investors from the car making industry.

Every, whatever small but serious foreign investor being ready to invest in any of the country's regions has to be fully supported as in addition to the particular investments it means one perhaps even bigger benefit. Through those, initially perhaps just very small FDI, the particular region will get its "spot" on the global map of FDI sites. Such a spot or place on that map means that it has already managed to attract an attention of foreign investors. If such an initial investment becomes a successful and long-term relation then such a pilot investor is a kind of guaranty also for other potential foreign investors to follow that example as well. This is also what C. Mitchell-Weaver had in mind when suggesting lowering a minimum amount of FDI for becoming eligible for one or other

kind of incentives, etc. First pilot investor is like a icebreaker i.e. cleaning and opening the way for future investors-followers. The small country has always to remember that even in the largest economy in the world with the largest and the most powerful TNCs i.e. in the USA, the decisive parts (more than 80%) of the GDP and of new jobs have permanently been created by small and medium companies.

#### **FDI Inflows and "Learning" Regions**

It is a well-known and many times verified fact that the whole globalization and regional integration are very dynamic processes. The same and even more is true also regarding their individual components including FDI. What was, just ten years ago, quite an innovative approach like e.g. preparation of industrial parks or "maquiladoras" as one of the most efficient means and tools how to attract foreign investors into the particular country or regions, nowadays has been seen as a rather old fashioned and out-of-touch approach. The same could be said about various kinds of incentives that has been at present offered by so many countries that they almost absolutely lost their innovative attractiveness or comparative advantage and have become just a kind of an inevitable standard. Or the privatization just quite recently has been seen as one of the most efficient ways for attracting FDI inflows into the particular country. But after just several years it has been discovered that through such a process, some significant amounts of investments could come and improve the particular statistics and image of the country. But on the other hand it has become evident that through such FDI inflows most of expected benefits like new technologies, new jobs, new markets, etc. never come.

As most of these potential benefits and expectations from FDI have a very strong regional dimension and are basically implemented on the regional levels it is of utmost importance to upgrade the regions in their relation to FDI inflows into the category of so called "learning regions".

A learning region in difference to an "ordinary" region means that it is a region being aware of the dynamics and speed in the FDI global and regional trends and is able to adjust its pro-investment policy accordingly. For example in connection with IP it means that such a region will not only be preparing such a park in a classical form as being known from - so to say with some exaggeration - the last 20<sup>th</sup> century but according to the trends of the contemporary 21<sup>st</sup> century i.e. IPs with value adding orientations like are a research, development, innovations, high tech orientation, etc.

From the practical point of view it means that the regions in their pro-investment strategies have to combine their efforts with a large circle of other suitable partners in that area as are local and/or regional universities and colleges, research, innovation and development centers in order to discover all the potential of the so called "knowledge assets" of the particular region and/or neighboring regions.

An another important feature of a learning region is that in addition to the above regional "knowledge assets" it is able also to promote and create all necessary preconditions for the industrial clusters. It means that producers from industries belonging together will be creating particular industrial clusters like production of computer chips will create a necessary basis for a cluster with various other producers using those chips for their lines of productions.

In addition to the above clustering, an another important feature of a learning region is the concept of "growth poles". These poles are in fact regional centers that could help in and support the overall growth of the region. They are in different ways supporting regional production, employment, qualification of labor, income, standard of living, regional demand and thus moving the whole region towards sustainable development and an overall growth

Among the most important characteristics of a learning region is also its ability to learn not only internally through the above internal regional capacities but also externally i.e. on an inter-regional basis. Instead of often existing or prevailing rivalry among or between regions there has to be inter-regional cooperation in learning together. In this type of learning, one of the most important roles could be played by regional pro-investment centers as well as regional pro-investment agencies. It is given mainly by the fact that individual regions and their main players often for various other duties and responsibilities do not have enough time and capacity to follow the latest developments and innovations in FDI global and regional trends. It is then the responsibility of those specialized regional agencies to monitor and disseminate the latest know how in the particular area. In this respect a close and regular monitoring of the latest global and regional trends in FDI and their application to the regional pro-investment strategies is one of the most efficient ways how to support and develop the regional dimension of FDI. One typical

example where is also one of the main deficiencies of the whole pro-investment strategy in the Slovak Republic and especially on its regional level is the lack of learning from the closest partners within the V4 countries. If we look at the V4 regional map we could find out that the Slovak Republic has been the most surrounded member country of that regional grouping not only geographically but also regarding concentration of FDI sites on the other side of its common border with its V4 partners.

For example very close to the Slovak border in the north with Poland are located three important Special Economic Zones (SEZ):

- Euro-Park Mielec SEZ
- SEZ Krakow Technology Park
- Katowice SEZ

All three of them could serve as good examples or models for neighboring regions on the other side of the border in the Slovak Republic like:

- an active cooperation with and involvement of local universities into FDI inflows support
- some of the SEZ sub-zones are directly operated in close cooperation with the particular regional universities
- having specialization like Krakow Technology Park in green field industrial projects
- Euro-Park Mielec has been created as a prototype of the future Euro-cross-border FDI park
- All three have been launched gradually since 1995 and over the years have gathered a lot of practical experiences.

On the southern border of the Slovak Republic with Hungary - as we have already mentioned - is another high concentration of FDI as that territory accommodates almost 80% of all FDI inflows in the country. Especially it is so along the famous highway Miskolc - Budapest - Gyor - Vienna running only few kilometers from the Slovak border.

About the same situation is also along the common border of the Slovak Republic with the Czech Republic. There are again not far from the border itself traditional centers of FDI inflows in the Czech Republic like Ostrava region, Brno region and region of the Southern Moravia as the whole with numerous IP, technological parks, innovation parks, etc.

But in spite of all these three huge concentrations of FDI inflows in three closest neighboring countries one could hardly find any attempt on the Slovak side to utilize this situation also for the benefits of the own country. Until now there has not been registered any attempt e.g. to build a "mirror" IP or other kind of parks on the Slovak side of the border and thus to try to lure FDI also to the other side of the common borders. And that this is no any revolutionary idea on a specific cross-border cooperation in the field of FDI we could again bring a lot of examples from various parts of the world that we have already mentioned also in this study like are SEZ on the China side of the border with Hong Kong. And it was so long before the former colony returned to its homeland. Various industrial and other parks exist also on the Malaysian and Indonesian sides of their common border with Singapore. And most probably it is again no accident that the main original concentration of FDI sites in the Republic of Ireland has always been along its short and otherwise not the most peaceful border with the Ulster as a part of the UK. But positive examples in this respect we could find also on Hungarian and Czech borders with Austria. For example on the Hungarian and Austrian border has been already for years operational the Szentgotthard - Helingenkretz Industrial Park that is symbolically located on the both sides of the common border with its own special customs office and border crossing. A similar common IP exists also on the Austrian and Czech border. One could only wonder why has not been so far made a single similar attempt on the Slovak border with its V4 neighbors? That alone remains one of the biggest mysteries of the whole pro-investment strategy of the Slovak Republic and of course not only for this author. Such a quite logical solution i.e. building "mirror" IPs on the Slovak side of the common borders with other V4 countries could help not only to improve inflows of FDI into the country but also to improve its image. As an example could serve experiences from China, Malaysia or Indonesia that built their first IPs on the borders with their neighbors as already years ago they knew that FDI do not know and do not recognize any geographic, political or ideological borders. They simply go or better overflow or spill over across any border just in order to find better conditions for their returns. Building "mirror" IPs on common borders of Slovakia with its

neighbors is for an OECD member country and soon-to-become member of the EU much better presentation and image making factor than to serve as a source of cheap "gastarbeiters" i.e. guest workers not only for Austria but currently already also for all other V4 countries.

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# Empirical Study for the Effect of Stock Policy on Banker Stocks in Chinese Markets

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## Abstract

The paper studies the relationship between stock policy announcements and banker stocks in Chinese stock markets. The investigations are carried out through modeling the daily changes of stock returns of banker stocks on the windows of stock policy events, in order to test the news effects of stock policy on the conditional mean and the variance of the changes on the days of stock policy announcements. It is found that a significant positive effect had occurred to banker stocks, which explained a significant effect by using policy events to manipulate the stocks. The banker stocks' cumulative abnormal return can reach 10%—15% within the stock policy event window. The research reveals that Chinese markets, unlike west markets, are sub-efficiency markets with serious banker stocks manipulation by means of varied stock policy.

## Introduction

Chinese Stock market has long been called policy market where policy has a significant impact on stock and investor's behavior. Xiaobin J and Limin T (2001) proved by statistics that during 1992 to 2000 policy was the main factor that led to the abnormal fluctuation of the stock market and contributed 46% of the total impact. Xiangjun L's empirical study (2001) show that among the 52 abnormal fluctuations of the Shanghai market during 1992 to 2000 the policy factor led to 30 fluctuations, about 60% of the total impact. Other studies, e.g. Shigui Z (1998), Chengwei Z (1998) also found a strong correlation between the policy and fluctuation of the stock price.

Banker stock is another major phenomenon in Chinese stock market. To be objective, banker stocks are inevitable, and meanwhile manipulation of small capital stocks to profit is common in all stock markets. However, the prevalence of banker stocks in China today has been profoundly grounded and rooted. It can be mainly attributed to the influence of the administration policy on the stock markets, which renders the market mechanism failing to give its full play. As a reflection, the market approaches the equilibrium via administrative measures rather than market mechanism. There tends to be strong correlation between the policy changes and the banker stock behavior. However, it's quite difficult to study the banker stock behavior in Chinese stock market not only due to the complexity of the issue itself but also to the difficulty in collecting information and data generated by wire-pulling. The paper is to start from the relation between policy information and banker stock and to find its impact on efficiency of Chinese stock market.

The author is going to study the following aspects: empirical study on abnormal returns, cumulative abnormal returns and trade volume of banker stock in the window of policy information announcements. The study is aimed to unveil to what extent the manipulation of banker stock depends on the announcement of policy information, i.e. whether the policy market is conducive to manipulation of banker stock.

The empirical results show, in Chinese stock markets there is full of banker stocks (see Table 2) and there is close relationship between policy events and manipulation of banker stocks. It is seen from Table 2, in the whole of 1180 A-stocks in Chinese markets there are 113 typical banker stocks. So about 1/10 of Chinese stocks are typical banker stocks. On the other hand, policy events have significant impact on banker stock abnormal return and cumulative abnormal return in both the Shanghai and Shenzhen market. Maximum banker stock abnormal return of about 2% were reached on date  $t=1$  or  $t=2$  of the policy event in both the markets. Banker stock cumulative abnormal return in both the markets can reach 10%—15% within the event window. And the cumulative abnormal return begin to rise 5—10 days before the policy event and rise the rapidest 1 or 2 days after the event. A maximum is reached 13 days after the event and then have a small drop. This is a characteristic very different from west efficient markets in which event effect is significant only on the event announcement day and quickly goes to quiet. The empirical study results for banker stock abnormal trade volume change and cumulative abnormal trade volume

change shows that there is a greatly fluctuated trade volume in the policy event window, especially in the case of policy good news. It is an evidence of that the manipulation of banker stocks was greater than normal stocks. The research reveals that Chinese markets, unlike west markets, are sub-efficiency markets with serious banker stocks manipulation by means of varied stock policy.

The author believes that the research has significance of two aspects. On the one hand, theoretically speaking, Chinese stock markets are parts of world finance markets and the study for their operate rules, efficiency characteristics, price-making mechanism, policy effect must be helpful for the development of theory on capital-asset-pricing and theory on capital market efficiency. Because banker stock is a special phenomenon in developing markets and it has great influence on the markets, studying its behavior rules will be helpful to detect the market operate mechanism. On the other hand, practically speaking, with the economy and finance globalization and China join into WTO, Chinese stock markets will be open to world soon. World investors will come into the giant market. The research of Chinese market characteristics and price-making mechanism, especially banker stocks and policy effect, will be helpful to investors for their information collecting and investing decisions.

The rest of the paper is organized as follows: Section 2 discusses data employed and methodology issues, Section 3 discusses study model and presents empirical results, and Section 4 concludes the paper. All tables and figures are in appendix after references.

## Data and Methodology

Data for empirical study are daily data for all stocks listed on the Shanghai and Shenzhen stock markets, including stock code, stock name, trade volume, trade value, open price, close price, maximum price and minimum price.

The data spanned between January, 1999 to December, 2001<sup>1</sup>. The reason is that the policy change and banker stock manipulation during that period is quite typical and the time span is relatively new. Stock market after 2002 is quite dull and banker stocks are inactive.

Original data are adjusted as follows: eliminate trade record for investor's new stock issuance application; re-impose rights to stock dividend based on the ex-rights day; eliminate transaction data for non-stock securities (such as bond, fund).

Methodology: events analysis is used to study abnormal return and abnormal trade volume change in the events window. Steps are as follows: define events and events window; select samples; calculate normal, abnormal return and change of trade volume; select model to estimate change of normal return and normal trade volume; calculate abnormal return, normal return and the difference between abnormal trade volume and normal trade volume; formulate test results and explanation.

Events selection: relevant major policies during January 1999 and December 2001. In order to avoid overlapping of time events (a series of relevant policies were formulated in a specific time interval), the policy that has the biggest impact is chosen in that time interval. According to search results of China Securities Journal, the 7 items in Table 1 are deemed as the representative big events.

TABLE 1: BIG POLICY EVENTS DURING THE SAMPLES INTERVAL

Number	Time	Policy
1	1999.5.19	Cumulative of various market good policies <sup>2</sup> □ good news
2	1999.9.9	Permission of market entrance for 3 types of companies <sup>3</sup> □ good news
3	2000.2.14	Permission of mortgage loans for securities companies and distribution of newly issued stocks to secondary market investors. Good news.
4	2000.8.22	Supervision of State Council and CSRC on financial institutions, bad news
5	2001.1.10	On Strengthening market supervision by premier Zhu, Investigation by CSRC on Yi An Technologies; bad news

In Table 1 the events show a surging stock market at the turn of the century where the banker stocks were active and major policies were frequently formulated, among which the market entrance of 3 types of companies, the

investigation of Yi An Technologies and the decrease of State Stocks Holding were the major policies that impacted the market greatly.

Events window: the first transaction day after the occurrence of events is  $t=0$ . Take  $t = -15$  to  $t = +15$  as event window, that is, the 31 days of 15 days before and after the occurrence of the event is the length of the window. In addition, take 30 transaction days before the event window as pre-estimate window.

Sample Selection: according to characteristic of banker stocks, the major criteria to judge whether a stock is a banker stock is the existence of three stages of low price buy, rapid price pulling and high price selling. This process is the key for the bankers to profit. Moreover, the characteristic is easy to identify. Based on performance of all the listed stocks (funds and bonds are eliminated) during Jan, 1999 to Dec, 2001 in the Shanghai and Shenzhen Market, the 113 banker stocks are sampled (see Table 2).

The banker stocks in Table 2 are typical banker stocks listed on the two markets. In the table the numbers in the brackets are stock price in the specific time, to the nearest 0.5 Yuan for the facilitation of understanding the trend.

The banker stocks in Table 2 selection criteria is: in a reasonable time period, an obvious three-stage change or up and down two-stage change, a 100% change of price, a stable low price buy period before manipulation and the price changed down to the level before manipulation after the whole process. This is a typical banker stock. According to the criteria, there are over 110 stocks having a manipulation interval of 7 or 8 months, a maximum of 30 months, price change for 200% to 300%, maximum to 500% to 600%, including the well known banker stock such as Yi An Technologies and Century Zhong Tian, which were all in tally with the reality of Chinese stock market, e.g. common and abnormal profit for banker stock.

Individual stocks that have ex-rights for many times during the study period were possibly intervened by bankers (manipulation by themes). Because of lack of characteristics for banker stock price change and inability to determine whether it is a reasonable market behavior or market manipulation, the stocks were not listed as banker stocks. In addition, newly listed stocks after 2000 were most going upward a bit and then move downward for a time were not listed as banker stocks because of the absence of low price buy and the low magnitude of moving upward despite they were most intervened by bankers (maybe during the application period).

Some stocks in Table 2 might experience banker situation more than once such as the stock 600729 and the time interval is more than 1 year. Some stocks experience long upward phase (more than half an year), which is the result of complex banker practice (mixing manipulation of up, fluctuate and sell).

TABLE 2: TYPICAL BANKER STOCK MANIPULATION FROM JAN.1999 TO DEC.2001  
IN CHINESE MARKET (PARTLY<sup>4</sup>)

Code	Up	Fluctuation	Down	Interval(month)
600001	99/3/1---99/7/15 (7.5)---(13)		99/7/15---00/1/4 (13)---(7.5)	10
600009	99/3/3---99/6/24 (9)---(14.5)		99/6/24---00/1/28 (14.5)---(9.5)	11
600052	99/5/19---00.4/19 (7)---(20.5)		00/4/19---01/12/15 (20.5)---(6.5)	30
600055	00/1/18---00/11/7 (10.5)---(25)		00/11/7---01/11/7 (25)---(14)	23
600056	99/5/19---00/7/10 (11)---(33)		00/7/10---01/12/15 (33)---(11)	30
600058	99/5/17---00/12/1 (7.5)---(32)		00/12/1---01/12/15 (32)---(11)	30
600073	99/11/26---00/2/18 (7)---(31)		00/2/18---00/10/8 (31)---(15)	10
600076	99/12/1---00/6/2 (11.5)---(28)		00/6/2---01/12/15 (28)---(10)	25

600077	99/5/18---99/8/15 (15)---(32)	99/8/15---99/11/10 (32)---(20)	99/11/10---01/11/1 (20)---(12)	29
600102	00/5/16---00/11/1 (7)---(24)		00/11/1---01/12/15 (24)---(7)	19
600126	00/1/10---00/8/8 (6)---(13)		00/8/8---01/10/10 (13)---(7)	21
600128	00/1/15---00/4/20 (12)---(33)	00/4/20---01/2/20 (33)---(15)	01/2/20---01/12/15 (15)---(9)	23
600135	99/5/19---99/7/15 (10)---(26)	7/15--12/20--00/3/8 (26)---(26)---(41)	00/3/8---01/12/15 (41)---(19)	30
600136	99/5/17---00/6/26 (10)---(26)		00/6/26---01/12/15 (26)---(12)	30
600138	99/5/19---99/8/21 (9)---(21.5)	8/21-12/16-00/2/18 (21.5)--(13)--(33)	00/2---00/9---01/11 (33)---(16)---(11)	30
600146	01/2/21---01/6/22 (10)---(24)		01/6/22---01/12/15 (24)---(13)	11
600161	00/10/20---01/1/19 (20)---(32)		01/1/19---01/12/15 (32)---(18)	14
600165	00/10/5---01/5/16 (11)---(29)		01/5/16---01/12/15 (29)---(13)	14
600173	01/2/19---01/6/12 (10)---(17)		01/6/12---01/12/15 (17)---(8)	10
600191	99/5/18---99/8/11 (8)---(22)		99/8/11---99/12/29 (22)---(13)	7
600205	99/12/29---00/8/21 (7)---(16)	00/8/21---01/3/5 (16)---(16)	01/3/5---01/10/23 (16)---(9)	22
600232	00/6/30---00/12/1 (15)---(26)		00/12/1---01/11/7 (26)---(12)	16
600248	00/6/30---00/11/7 (18)---(29.5)		00/11/7---01/10/23 (29.5)---(14)	16
600263	01/5/18---01/7/3 (13)---(21)		01/7/3---01/11/7 (21)---(13)	6

## Model for Empirical Study and Result

Model for empirical study and result for abnormal return, cumulative abnormal return and abnormal trade volume change, cumulative abnormal trade volume change of banker stocks in the window of policy declaration are as follows:

Return  $F_{it}$  and trade volume change  $G_{it}$  can be given by the following model:

$$F_{it} = \ln Q_{it} - \ln Q_{i,t-1}, F_{it} = \mu_i + \zeta_{it}, E(\zeta_{it}) = 0, Var(\zeta_{it}) = \sigma_i^2 \quad (1)$$

$$G_{it} = \ln R_{it} - \ln R_{i,t-1}, G_{it} = \nu_i + \xi_{it}, E(\xi_{it}) = 0, Var(\xi_{it}) = \varepsilon_i^2 \quad (2)$$

Where  $t$  is per trading date,  $i$  is alternative event number,  $Q_{it}$  is the actual stock price on date  $t$  for event  $i$ ,  $R_{it}$  is actual stock transaction volume on date for event  $i$ . Estimated value of  $CF_i$ ,  $CG_i$  can be obtained by regression of

$\mu_i$  and  $V_i$  in the estimate period, and abnormal return  $AF_{it}$  and abnormal trade volume change  $AG_{it}$  on date  $t$  for event  $i$  can be further obtained:

$$AF_{it} = F_{it} - CF_{it}, \quad AG_{it} = G_{it} - CG_{it} \quad (3)$$

Cumulative abnormal return  $CAF_{it}$  and cumulative abnormal trade volume change  $CAG_{it}$  are following:

$$CAF_{it} = \sum_{s=-15}^t AF_{is}, \quad CAG_{it} = \sum_{s=-15}^t AG_{is} \quad (4)$$

In order to make the banker stock characteristics obvious, the abnormal return and abnormal trade volume change are compared to average abnormal return and average abnormal trade volume change in the event window. Take the Shanghai market index and Shenzhen Component index as the substitute of market portfolio price, and the trade volume of the two markets as trade volume of market portfolio, according to (1), (2). (3), (4) the abnormal return  $SF_{it}$  abnormal trade volume change  $SG_{it}$ , cumulative abnormal return  $CSF_{it}$ , cumulative abnormal trade volume change  $CSG_{it}$  for the market portfolio in the event window can be calculated.

Abnormal return  $ZF_{it}$  and abnormal trade volume change  $ZG_{it}$  for the banker stock can be calculated accordingly:

$$ZF_{it} = AF_{it} - SF_{it}, \quad ZG_{it} = AG_{it} - SG_{it} \quad (5)$$

Cumulative abnormal return  $CZF_{it}$  and cumulative trade volume change  $CZG_{it}$  for banker stocks are following:

$$CZF_{it} = CAF_{it} - CSF_{it}, \quad CZG_{it} = CAG_{it} - CSG_{it} \quad (6)$$

Set the number of big events  $N$  and classified into good news and bad news to calculate average abnormal return  $\overline{ZF}_t$ , average abnormal trade volume change  $\overline{ZG}_t$ , average cumulative abnormal return  $\overline{CZF}_t$ , and average abnormal trade volume change  $\overline{CZG}_t$  for the banker stock:

$$\overline{ZF}_t = \frac{1}{N} \sum_{i=1}^N ZF_{it}, \quad \overline{ZG}_t = \frac{1}{N} \sum_{i=1}^N ZG_{it} \quad (7)$$

$$\overline{CZF}_t = \frac{1}{N} \sum_{i=1}^N CZF_{it}, \quad \overline{CZG}_t = \frac{1}{N} \sum_{i=1}^N CZG_{it} \quad (8)$$

At last, take  $\{\overline{ZF}_t\}$ ,  $\{\overline{ZG}_t\}$ ,  $\{\overline{CZF}_t\}$ ,  $\{\overline{CZG}_t\}$  as sample for test in order to determine the impact of policy on banker stock (for the 110 stocks listed in Table 2).

Original hypothesis  $H_0$ : the major policy has no impact on the banker stock in the event window ( $\overline{ZF}_t = 0$ , or  $\overline{ZG}_t = 0$ , or  $\overline{CZF}_t = 0$ , or  $\overline{CZG}_t = 0$ )

Alternative hypothesis  $H_1$ :  $\overline{ZF}_t \neq 0$ , or  $\overline{ZG}_t \neq 0$ , or  $\overline{CZF}_t \neq 0$ , or  $\overline{CZG}_t \neq 0$

All the calculations are done by Eview and Excel. Results are in Table 3-6 and Fig. 1- 8.

TABLE 3: IMPACT OF POLICY EVENT (GOOD NEWS) OVER BANKER STOCKS  
IN SHANGHAI MARKET

Date t	Banker stock abnormal return (%)	Banker stock cumulative abnormal return (%)	Banker stock abnormal trade volume change (%)	Banker stock cumulative abnormal trade volume change (%)
-15	0.1617	0.1617	7.4362	7.4362
-14	0.6113	0.7730	16.5345*	23.9707
-13	-0.6410	0.1325	-0.1400	23.8303
-12	-0.0390	0.0932	1.5253	25.3556
-11	0.4414	0.5346	-5.6160	19.7396
-10	0.3754	0.9100	-9.2990	10.4407
-9	-0.2470	0.6630	5.6214	16.0621
-8	0.2683	0.9313	-9.2660	6.7965
-7	1.0504*	1.9817	27.2138*	34.0103
-6	0.3784	2.3601	-5.6200	28.3904
-5	1.1411*	3.5011	-9.9240	18.4664
-4	-0.4170	3.0840	10.8874	29.3538
-3	0.8344	3.9183	1.2857	30.6395
-2	1.1749*	5.0932	8.1024	38.7419
-1	0.8021	5.8953	-12.8500	25.8918
0	0.8745	6.7698	-23.2950*	2.5970
1	2.0464*	8.8162	5.1197	7.7167
2	1.5083*	10.3245	31.4286*	39.1453
3	-0.0006	10.3180	2.8726	42.0179
4	2.2736*	12.5916	-5.4060	36.6117
5	0.5570	12.0342	14.7049	51.3166
6	0.5460	11.4884	-3.6430	47.6733
7	0.3237	11.8121	-8.5630	39.1101
8	1.7089*	13.5210	9.1343	48.2444
9	0.6263	14.1473	22.1661*	70.4105
10	0.9334	15.0807	-28.9700*	41.4400
11	0.4900	15.5707	-1.0770	40.3629
12	0.1512	15.7219	3.6929	44.0558
13	-0.3180	15.4044	-4.6640	39.3921
14	-0.1180	15.2864	0.6558	40.0479
15	-0.5530	14.7329	-2.5920	37.4559

\*: 5% significance.

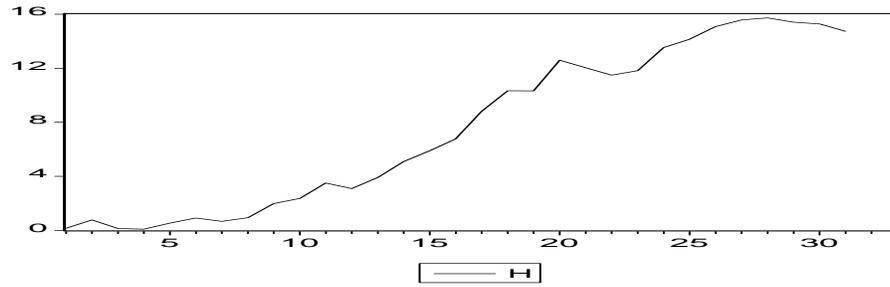


FIG. 1: BANKER STOCKS CUMULATIVE ABNORMAL RETURN (%) IN THE POLIC EVENT WINDOW (GOOD NEWS) FOR SHANGHAI MARKET

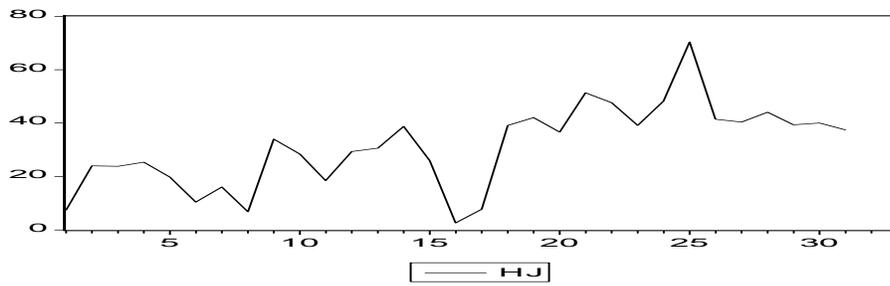


FIG. 2: BANKER STOCKS CUMULATIVE ABNORMAL TRADE VOLUME CHANG (%) IN THE POLIC EVENT WINDOW (GOOD NEWS) FOR SHANGHAI MARKET

TABLE 4: IMPACT OF POLICY EVENT (GOOD NEWS) OVER BANKER STOCKS  
IN SHENZHEN MARKET

Date t	Banker stock abnormal return (%)	Banker stock cumulative abnormal return (%)	Banker stock abnormal trade volume change (%)	Banker stock cumulative abnormal trade volume change (%)
-15	0.4179	0.4179	17.4055*	17.4055
-14	1.3202*	1.7381	-4.0635	13.3420
-13	-0.0510	1.6871	17.4313*	30.7734
-12	0.1201*	1.8072	-15.5074*	15.2659
-11	0.4640	2.2712	7.2917	22.5577
-10	0.5513	2.8225	8.8810	31.4387
-9	0.6288	3.4513	-6.5710	24.8677
-8	0.9020	4.3532	8.6936	33.5614
-7	0.0465	4.3997	-3.4952	30.0661
-6	0.3004	4.7001	-2.2198	27.8462
-5	0.7016	5.4016	4.8784	32.7247
-4	-0.2000	5.2016	-3.0048	29.7199
-3	0.6865	5.8882	-20.5398*	9.1800
-2	-0.4670	5.4212	13.6726	22.8527
-1	0.0866	5.5079	-13.1916	9.6610
0	-0.4040	5.1040	-54.1145*	-44.4535
1	1.3490*	6.4530	33.1122*	-11.3412
2	2.3961*	8.8491	32.6671*	21.3259
3	-0.4360	8.4133	5.1234	26.4494
4	1.3989*	9.8121	-2.2784	24.1709
5	-0.9950	8.8172	-3.2126	20.9583
6	-0.6860	8.1313	-6.7789	14.1794
7	1.3581*	9.4894	0.3616	14.5411
8	-0.0890	9.4007	22.9139*	37.4550
9	-0.5840	8.8168	-0.6771	36.7778
10	0.4419	9.2587	-4.1807	32.5970
11	0.5543	9.8129	4.8222	37.4192
12	0.7403	10.5532	-7.6699	29.7493
13	0.3614	10.9146	-5.6960	24.0533
14	-0.6520	10.2624	-0.3411	23.7121
15	-1.0310*	9.2311	-7.7844	15.9276

\*: 5% significance

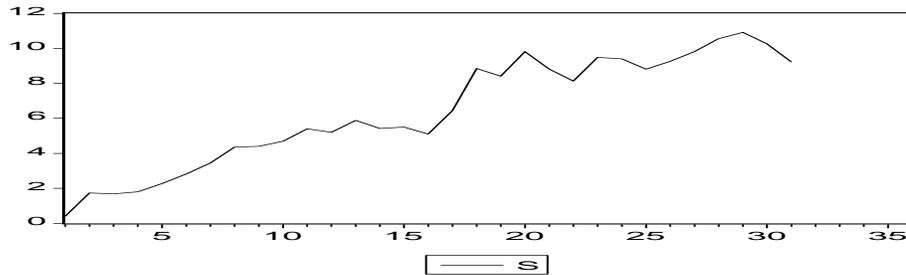


FIG. 3: BANKER STOCKS CUMULATIVE ABNORMAL RETURN □%□ IN THE POLIC EVENT WINDOW (GOOD NEWS) FOR SHENZHEN MARKET

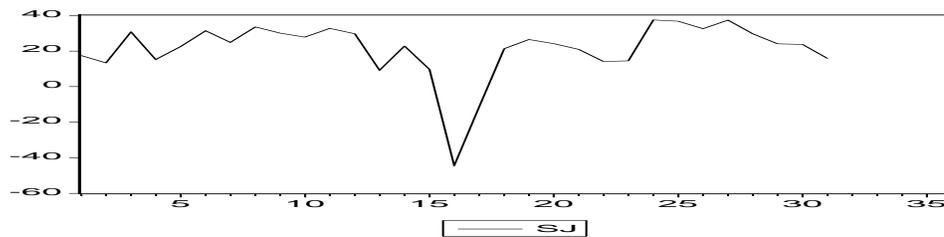


FIG. 4: BANKER STOCKS CUMULATIVE ABNORMAL TRAD VOLUME CHANG □%□ IN THE POLIC EVENT WINDOW (GOOD NEWS) FOR SHENZHEN MARKET

TABLE 5: IMPACT OF POLICY EVENT (BAD NEWS) OVER BANKER STOCKS IN SHANGHAI MARKET

Date t	Banker stock abnormal return (%)	Banker stock cumulative abnormal return (%)	Banker stock abnormal trade volume change (%)	Banker stock cumulative abnormal trade volume change (%)
-15	0.3084	0.3084	-15.0040*	-15.0040
-14	0.0839	0.3924	2.0423	-12.9620
-13	-0.1839	0.2084	28.8449*	15.8832
-12	0.0495	0.2580	-10.3960	5.4868
-11	-0.1822	0.0758	15.3764*	20.8632
-10	0.1632	0.2390	20.3435*	41.2067
-9	0.4478	0.6869	-6.6140	34.5930
-8	-0.1757	0.5112	-9.3130	25.2798
-7	-0.1961	0.3150	0.6078	25.8876
-6	-0.3785	-0.0634	1.8855	27.7731
-5	-0.1223	-0.1857	6.4534	34.2265
-4	0.1201	-0.0656	15.1119*	49.3384
-3	-0.3158	-0.3815	-13.3700	35.9683
-2	-0.2704	-0.6520	-3.6570	32.3108
-1	-0.6358	-1.2878	12.3318	44.6427
0	0.2047	-1.0831	0.6622	45.3049

1	0.0738	-1.0093	-2.4670	42.8378
2	0.0509	-0.9584	1.9611	44.7989
3	-0.3266	-1.2850	-11.5450	33.2539
4	-0.2550	-1.5401	2.7544	36.0083
5	-0.3183	-1.8585	-5.6840	30.3243
6	-0.2799	-2.1384	1.8445	32.1688
7	0.2461	-1.8922	-20.2840*	11.8847
8	-0.5033	-2.3956	1.8432	13.7280
9	0.2490	-2.1466	7.7512	21.4791
10	-0.0218	-2.1684	-4.1110	17.3678
11	0.2674	-1.9009	-34.4580*	-17.0900
12	0.1916	-1.7093	19.2614*	2.1714
13	-0.1653	-1.8746	21.0061*	23.1775
14	0.4832	-1.3913	-4.6770	18.5001
15	0.2735	-1.1178	13.7128	32.2129

\*: 5% significance

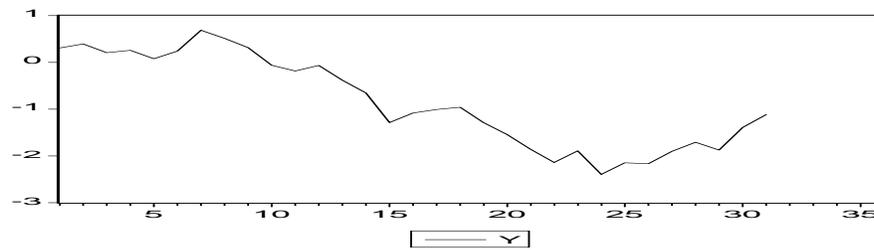


FIG. 5: BANKER STOCKS CUMULATIVE ABNORMAL RETURN  $\square\%$  IN THE POLIC EVENT WINDOW (BAD NEWS) FOR SHANGHAI MARKET

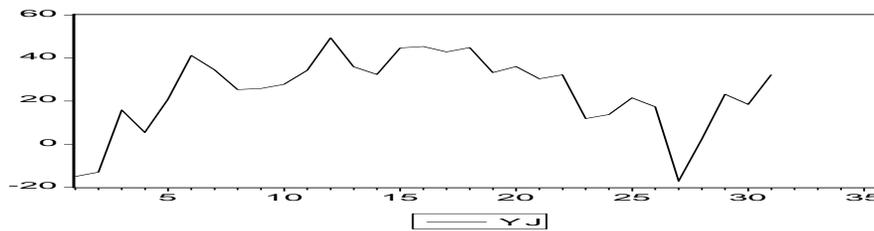


FIG. 6: BANKER STOCKS CUMULATIVE ABNORMAL TRAD VOLUME CHANG  $\square\%$  IN THE POLIC EVENT WINDOW (BAD NEWS) FOR SHANGHAI MARKET

TABLE 6: IMPACT OF POLICY EVENT (BAD NEWS) OVER BANKER STOCKS  
IN SHENZHEN MARKET

Date t	Banker stock abnormal return (%)	Banker stock cumulative abnormal return (%)	Banker stock abnormal trade volume change (%)	Banker stock cumulative abnormal trade volume change (%)
-15	-0.2406	-0.2406	-49.4083*	-49.4083
-14	0.1783	-0.0622	28.4317*	-20.9766
-13	0.1695	0.1072	-2.4605	-23.4372
-12	-0.2034	-0.0962	10.7163	-12.7209
-11	0.0620	-0.0342	7.0815	-5.63933
-10	-0.0745	-0.1087	9.9551	4.3158
-9	-0.3442	-0.4530	-18.6696*	-14.3538
-8	-0.8265	-1.2796	3.3272	-11.0266
-7	-0.0553	-1.3350	3.1197	-7.9068
-6	0.1946	-1.1403	-6.4744	-14.3812
-5	0.7648	-0.3755	26.5280*	12.1468
-4	-0.4289	-0.8044	-8.6628	3.4840
-3	0.1065	-0.6979	-20.5977*	-17.1137
-2	-0.1067	-0.8047	16.1157*	-0.9979
-1	-0.2217	-1.0265	-1.6186	-2.6166
0	-0.0037	-1.0302	-4.0263	-6.6429
1	-0.1957	-1.2259	9.3760	2.7331
2	-0.8123	-2.0383	-12.2133	-9.4802
3	-0.1223	-2.1607	-2.3805	-11.8607
4	-0.8809	-3.0416	26.2435*	14.3828
5	-0.5247	-3.5664	-11.8958	2.4869
6	0.0369	-3.5294	-12.2635	-9.7765
7	0.3264	-3.2030	-4.8540	-14.6306
8	0.6862	-2.5167	-6.1871	-20.8177
9	-0.2100	-2.7268	16.4769*	-4.3408
10	0.0936	-2.6331	-12.0918	-16.4327
11	-0.0504	-2.6835	10.8453	-5.5873
12	-0.1739	-2.8575	-15.8700*	-21.4574
13	-0.3766	-3.2341	12.9845	-8.4729
14	0.5829	-2.6511	7.7925	-0.6803
15	0.1348	-2.5163	17.700	17.0197

\*: 5% significance

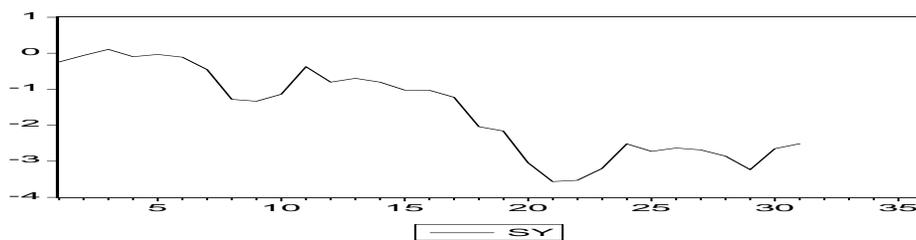


FIG. 7: BANKER STOCKS CUMULATIVE ABNORMAL RETURN (%) IN THE POLIC EVENT WINDOW (BAD NEWS) FOR SHENZHEN MARKET

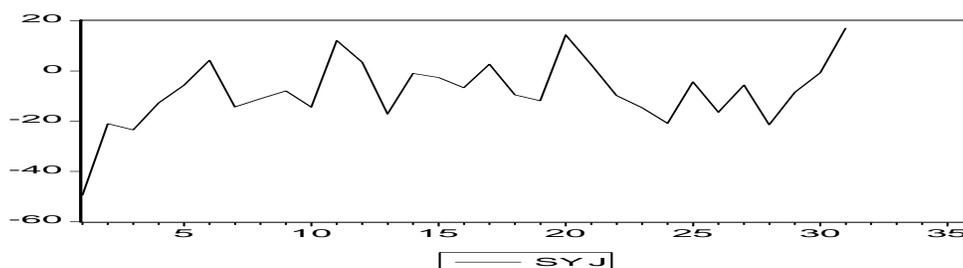


FIG. 8: BANKER STOCKS CUMULATIVE ABNORMAL TRAD VOLUME CHANG (%) IN THE POLIC EVENT WINDOW (BAD NEWS) FOR SHENZHEN MARKET

## Result Analysis for Empirical Study

The following conclusions can be drawn from Empirical test results (Table 3 - 6 and Fig. 1- 8):

It is can be seen from Table 3 and Table 4 that policy events (good news) have significant impact on banker stocks abnormal return and cumulative abnormal return in both the Shanghai and Shenzhen market. Banker stocks' abnormal returns on dates  $t = -7, -5, -2, 1, 2, 4, 8$  of the event are significantly positive in Shanghai market, among which data  $t = 1$  has a maximum of 2.05%(see Table 3). Banker stocks' abnormal returns on dates  $t = -14, 1, 2, 4, 7$  in Shenzhen market are significantly positive, among which date  $t = 2$  has the maximum of about 2.4%, while data  $t = -15$  is significantly negative (see Table 4). Maximum return is reached on date  $t = 1$  or  $t = 2$  of the policy event in both the market, which shows the obvious impact of the policy event on the banker stocks. That is to say, banker stocks' reaction to policy events is significantly different to other normal stocks. A significant positive effect has occurred to banker stocks, which shows a significant effect by using policy events to manipulate the stocks.

As to cumulative abnormal returns, Fig. 1 and Fig. 3 show a similar trend for both the Shanghai and Shenzhen market, that is, it begin to rise 5-10 days before the policy event and rise the rapidest 1 or 2 days after the event. A maximum is reached 13 days after the event and then has a small drop. Compared to return shift effective reaction of the event, let-out of policy information in advance is serious. The banker uses both the capital advantage and the information advantage to manipulate the stocks in advance. When the policy information finally arrives at the market, large amount of general investors swarm into the market and results the continuous price rise till the end of the event window. The market correction is quite weak, which is related to bankers' manipulation. It is can be seen from Fig. 1 and Fig. 3 that the banker stocks' cumulative abnormal return in both the markets can reach 10%—15% within the event window (This is the banker stocks' return shift).

Policy events' (bad news) impact on banker stocks' abnormal return and cumulative abnormal return in both the markets also show the manipulation characteristics of banker stocks. From Table 5 and Table 6, on the perspective of daily abnormal return, both the markets show no daily significant non-zero abnormal return at the 5% significance level, which seemingly show no significant impact of policy bad news over banker stocks. Since bad policy news have resulted a general drop of normal return, it demonstrates that banker stocks don't drop faster than

other stocks during the overall drop caused by the policy bad news. Considering the banker stocks' price are generally higher than their fair value, it is reasonable to believe a faster drop for the banker stocks in the policy bad news situation, so this is the evidence shows the bankers' manipulation. The figure of cumulative abnormal return has also explained from this point. Figure for cumulative abnormal return Fig. 5 and Fig. 7 are both close to return shift figure for efficient market, that is, it maintains at a stable level before occurrence of the event, shift downward shortly after the event, and then maintains at a close level. Because of the impact of policy bad news, a rapid decrease of banker stocks is disadvantageous to bankers. Therefore, bankers are trying to maintain a stability of banker stocks before and after the event, and an unavoidable shift (downward) occurs shortly after the event.

Therefore, the empirical study for banker stocks' abnormal return and cumulative abnormal return in the policy events window shows policy good news are conducive to banker manipulation and policy bad news don't resulted in a faster drop by banker stocks than normal stocks. And in the policy events window banker stocks have rather great cumulative abnormal return in both Shanghai and Shenzhen markets. This means that Chinese markets, unlike west markets, are sub-efficiency markets with serious banker stocks manipulation by means of varied stock policy.

Meanwhile, the empirical study results for abnormal trade volume change and cumulative abnormal trade volume change don't explain rules but gives some characteristic of banker stocks manipulation. Within the policy good news (see Table 3 and Table 4), significant abnormal trade volume change on dates  $t = -14, -7, 0, 2, 9, 10$  are non-zero in Shanghai market, while values on dates  $t = 0, 10$  are significantly negative, significant negative for two days and positive for other days. Significant abnormal trade volume on dates  $t = -15, -13, -12, -3, 0, 1, 2, 8$  are non-zero in Shenzhen market, while the values on dates  $t = -12, -3, 0$  are significantly negative. Cumulative abnormal trade volume change for both markets does not show an obvious upward or downward trend (see Fig. 2 and Fig. 4). In the policy bad news window, from Table 5 and Table 6, Shanghai market shows significant non-zero abnormal trade volume change on dates  $t = -15, -13, -11, -10, -4, 7, 11, 12, 13$  while Shenzhen market shows significant non-zero abnormal trade volume change on dates  $t = -15, -14, -9, -5, -3, -2, 4, 9, 12$ , among which values on dates  $t = -15, 7, 11$  in Shanghai market are negative and values on dates  $t = -15, -9, -3, 12$  in Shenzhen market are significantly negative. Also, like the case of good news, the cumulative abnormal trade volume change in both markets don't show obvious upward or downward trend (see Fig. 6 and Fig. 8).

Therefore, conclusions for the empirical study of banker stock abnormal trade volume change and cumulative abnormal trade volume change can be drawn as follows: first, policy event resulted in significant fluctuation of abnormal trade volume of banker stocks for Chinese stock market, among which there are positive change and significantly negative change, and the fluctuation of trade volume change caused by policy good news is greater than policy bad news, which shows that manipulation of banker stocks is greater than normal stocks and thus has a greatly fluctuated trade volume in the policy event window, especially in the case of policy good news. Secondly, on the date of policy good news declaration  $t = 0$ , abnormal trade volume of banker stocks in both markets enjoy a significant drop of -23% in Shanghai market and -54% in Shenzhen market. On the following two days  $t = 1 \square 2$  the values rise greatly, which could be explained that the bankers and the general investors are on-watching the market on the event day, thus results the trade volume dropped significantly and rise dramatically during the subsequent two days. Relating to the fact that banker stocks' abnormal return reaches a significant positive maximum on date  $t = 1$ , it can be categorized as another aspect of sub-efficiency characteristics in Chinese markets: both the bankers and the general investors are more prone to focus on banker manipulation and policy impact. Third, abnormal return and abnormal trade volume change for banker stocks in the event window in both markets shows strong similarity, which demonstrate a high degree of correlation between Shanghai and Shenzhen market.

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## End Notes

<sup>1</sup> Data source: [www.stockstar.com](http://www.stockstar.com) and [www.zgjr.com](http://www.zgjr.com)

<sup>2</sup> In May1999 the government formulated some policy opinions for advancement and regulation of stock market development. In middle may, the State Council formally endorsed the regulations and propaganda were carried through senior newspaper commentators and high level officials, thus triggered the famous 5.19 market fluctuation.

<sup>3</sup> 3 types of companies refer to State owned enterprise, state shares controlled companies and listed companies.

<sup>4</sup>Because the Table 2 is too large, please see the full table on the author’s institute page:  
[http://www.uibe.edu.cn/upload/up\\_jmxy/site\\_ico/SITE/Site\\_Working\\_Paper.htm](http://www.uibe.edu.cn/upload/up_jmxy/site_ico/SITE/Site_Working_Paper.htm)

# The Impact of Foreign Ownership, Local Ownership and Industry Characteristics on Spillover Benefits from Foreign Direct Investment in China

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## Abstract

This paper finds that significant variation in FDI spillover effects on local industry is obscured through the aggregation common in most studies. Breaking Chinese industrial data for 2001 down by category of ownership of foreign investor, local firm, and by host industry, we find evidence of greater positive spillovers from FDI in technology-intensive industries than in labour-intensive industries. We then find that overseas Chinese affiliates from Hong Kong, Macau and Taiwan (HMT) generate spillovers to locally-owned enterprises (LOEs) in labour-intensive industries, in contrast with western affiliates, which positively impact on the performance of LOEs in technology-intensive industries. Chinese state owned enterprises (SOEs) benefit from the presence of both HMT affiliates in labour-intensive industries and of western affiliates in technology-intensive industries. Other LOEs (OLOEs), however, benefit only from HMT affiliates' presence in labour-intensive industries. These findings support host policies offering generous incentive packages to attract foreign investors in high technology industries.

## Introduction

The past two decades have witnessed a striking transformation in the Chinese economy: from a centrally-planned to an essentially market-oriented system, and away from an inward-orientated industrialization strategy to opening-up policies aimed at integration with the global economy. Accompanying the progressive marketization and internationalization of the economy in this period, has been an unprecedented expansion in inward foreign direct investment (FDI) into China by multinational enterprises (MNEs). Indeed, in 2003 China overtook the USA and became the largest recipient of FDI (UNCTAD, 2004). This growth in inward FDI is widely believed to be a key component of China's economic miracle. However, simply measuring the direct effects of inward FDI on Chinese industrial productivity will underestimate the overall contribution of foreign investment if spillover effects are significant (Murphy, 1992; O'Malley, 1994; Buckwalter, 1995). Therefore this study examines the spillover effects that arise from FDI in Chinese manufacturing.

There is little controversy within existing theoretical research on the causes of spillovers, but a considerable amount of debate within empirical work to date, largely because the evidence on spillovers remains stubbornly inconclusive (Blomstrom and Kokko, 1997). Part of the problem may be that existing studies typically treat foreign affiliates (FAs), of whatever home origin, and locally-owned enterprises (LOEs), of whatever type of domestic ownership, as a whole. They also pay no regard to the characteristics of the industry in which these firms operate. Such studies, therefore, look at the aggregate impact of overall inward FDI on all LOEs, across all manufacturing industries. More recent research (e.g., Buckley, Clegg and Wang, 2005a) has started to unpack these overall results, to allow for relationships within the aggregate data that can vary with category of foreign investors and by group of local spillover recipients.

In a commentary article on the perspective paper of Meyer (2004), Ramamurti (2004) calls for future research in the area of spillovers to follow Buckley, Clegg and Wang (2002) and Gillespie, Riddle, Sayre and Aturges (1999) in investigating the impact of diasporas on economic development in poor countries. By way of a response, this study aims to offer a step forward in breaking down the general relationship between FDI and LOEs' performance. We group the whole of Chinese manufacturing into labour-intensive and technology-intensive industries; FAs into those originating in Hong Kong, Macau and Taiwan (hereafter, HMT) versus those originating

from western countries; and the LOEs recipients of spillovers into state-owned enterprises (SOEs) and other locally-owned enterprises (OLOEs). These classifications form the basic analytical framework of this study.

These distinctions are particularly crucial in the context of China. First, it is generally agreed that China's comparative advantage is its relatively low labour costs compared with developed countries and with other emerging economies (Cheng & Kwan, 2000). This has been a leading motive for MNEs to invest in labour-intensive activities in China (Fung et al., 2002). Second, the two major groups of foreign investors in China – firms from HMT and from western countries – differ enormously, in terms of both motivation and investment behaviour (Huang, 2004). This contrast means that FAs in these two ownership groups can be expected to impact differently on LOEs. Third, SOEs and OLOEs are two very heterogeneous ownership types dominating Chinese manufacturing industry. They diverge substantially in many respects. These include the structure of property rights, technological capability, learning incentives and government support, among others (Wang, 2003). These dissimilarities suggest that the two types of firms may have different absorptive capacities, and furthermore that these will vary by industry. Therefore, the richness and diversity of FDI into China, and of its potential impacts, provides a unique opportunity to explore the complexity of FDI spillovers, within the environment of an economy undergoing transition.

In this paper we pursue the idea that the spillover effects of FDI may be not as uniform as many studies suggest. In examining the productivity impacts of foreign ownership on China's domestic industry, the paper is marked out from existing studies in the following three respects. First, by allowing the results to vary between labour- and technology-intensive industries, we expect to see the extent to which spillover effects vary with industrial technology intensity. Second, we employ alternative measures of foreign presence, and use these to investigate more deeply the influence of the source of FDI. This procedure enables us to distinguish effects that are specific to the type of country of foreign ownership, and to compare these with the overall effects of foreign ownership. Third, we allow the results to vary with respect to different types of domestic ownership. So doing enables us to observe the distribution of spillovers between differently-owned LOEs. Fourth and most important, we combine the above three dimensions by organizing the groups of foreign and locally-owned firms within different industry categories. This systematic approach provides an opportunity to uncover 'who benefits from whom' in which types of Chinese manufacturing industry. It is this task that constitutes the central aim of this study.

If significant between-group effects are captured through the above procedures, it would imply that studies conducted only at aggregate level are deficient. It is quite possible that in aggregate analysis 'good' and 'bad' nations, industries and ownerships of LOEs may offset one another, leading to the washing out of important effects. We expect that our breakdown will reveal sub-relationships in the data that up to now have remained hidden within the aggregate relationships reported in most studies. In this way, we aim to complement and deepen the state of knowledge on spillover effects in Chinese industry, which in the main has been confined to general conclusions.

The next section of this article sets the theoretical scene, together with a brief review of the relevant empirical literature. A description of the variables, the models adopted and data employed, follows in Section 3. The penultimate section discusses the econometric results. The last section concludes.

## Literature Review

### Theory on Spillovers

The theory of spillovers associated with inward FDI is well established, and little controversy remains. It is generally agreed that spillovers are generated by non-market transactions involving foreign MNEs' resources, in particular when knowledge is spread to local host country competitors without a contractual relationship (Meyer, 2004). Spillovers are reflected in improved productivity, or other benefits, in LOEs (Buckley, Clegg and Wang, 2005a). Görg and Greenaway (2002) mention imitation, the acquisition of skills, competition and exports as channels through which developing host countries may achieve productivity gains via intra-industry spillovers.

Despite general agreement over the theoretical basis and mechanisms of spillovers, to date theorists have not gone so far as to explore fully when precisely these spillovers might be large, small and nonexistent (Caves, 1999). However, there are good reasons for believing that spillovers should be large for certain groups of LOEs in

particular industries, and, that these further link to the country group of FAs. These hypotheses can only be tested by breaking down the aggregate data.

#### **Spillovers in Labour- and Technology-Intensive Industries**

Conventional theory on MNEs and FDI suggests that knowledge-based assets constitute the firm-specific advantages owned by MNEs, that these motivate investment across borders. Accordingly, Markusen (1995) notes that MNEs can be identified with a high ratio of intangible assets to market value. In industries characterized with rapidly changing technologies these assets are likely to be related to new products and processes. In line with these arguments, mainstream theoretical perspectives, such as the OLI paradigm (Dunning, 1993) suggests that MNEs operate predominantly in technology-intensive industries.

The emergence of MNEs in non-R&D intensive industries in recent years however (since the 1980s) has led to recognition that an absolute advantage, for instance in technology or product differentiation, is not always the crucial factor driving FDI (Giddy and Young, 1982). Labour-intensive industries are a good example of those in which MNEs' competitiveness may spring from marketing skills or organizational advantages. These non-technological assets are capable of underpinning the exploitation of comparative advantages in host countries (Luo, 1999)<sup>i</sup>. The possession of ownership advantages of this type, taken together with favourable location-specific factors abroad, may enable even small and low-technology firms to undertake FDI (Giddy and Young, 1982). This view is corroborated by evidence on the dramatic growth in FDI from Japan in the 1970s, and the emergence of MNEs from newly developed Asian economies, such as Hong Kong and Taiwan.

However, it is within host countries' technology intensive industries that we observe a concentration of conventionally technologically advanced MNEs. This is the origin of the view that LOEs in high technology industries are more prone to benefit from FDI technological spillovers than their counterparts in labour-intensive industries. Indeed, numerous studies find that technology plays a key role in generating spillovers in the form of improved productivity. This accounts for the interchangeable use of the terms 'productivity' and 'technology' spillover in much of the literature (Kokko, 1992). Notwithstanding the link between the use of technology and spillover benefits, there are reasons to expect a larger technology gap between FAs and LOEs in technology-intensive industries than in labour-intensive industries. The larger this gap, then the less likely are spillovers to materialize from MNEs' presence (Perez, 1997).

It follows that the scope for large spillovers should be smaller in labour-intensive industries than in technology-intensive industries. Yet LOEs in labour-intensive industries should still gain from the presence of foreign firms. The technology gap between FAs and LOEs should be smaller in labour-intensive industries than in technology-intensive industries. According to many studies this smaller technology gap should facilitate spillovers<sup>ii</sup>. In traditional industries, MNEs are more likely to base their competitiveness on organizational skills and marketing skills, such as experience in organizing labour-intensive production and the ability to specialize across international borders. Even so, it remains to be tested whether or not non technology-related spillovers are indeed smaller than technology-related spillovers.

#### **Spillovers and Home Origin of FDI**

The above hypothesized relationships may vary depending on the source country of FDI. This assertion has its basis in Dunning's eclectic paradigm (Dunning, 1988, 1993). The Paradigm posits that the pattern of FDI varies with the country of origin of the investing firm. MNEs in a particular country often possess some specific advantages emanating from the nature of their domestic market (Tatoglu and Glaster, 1998). Lecraw (1993) argues that the rationale for, and behaviour of, FDI should be heterogeneous across source countries because the degree of similarity between home and host market structures tends to differ with investors' geographic origins. In his 'single diamond' view, Porter (1990) alleges that the strong global competitiveness generated by the core competences of a MNE, results from the characteristics of the MNE's home base. The technological profile of an innovative affiliate will reflect the distinctive specialised technological capacities of its parent's home country.

A salient feature of inward FDI in China is that the investing countries can be identified in two distinct groups: overseas Chinese (Hong Kong, Macau and Taiwan, hereafter, HMT) and western countries (notably, the USA, European Union and Japan). It is argued that investors from these two sources possess different types of ownership advantages and business strategies, leading to heterogeneity in investment behaviour; for instance, in respect of the scale of investment, the extent of cooperative operation, productivity, and in the ability to transfer

technology (Huang, 2004). MNEs from western countries have state-of-the-art technology from heavy investment in R&D. This confers ownership advantages that enable them to compete successfully in technology-intensive industries with other firms in the market (Buckley, Clegg and Wang, 2002). This contrasts with HMT MNEs whose ownership advantages are thought to lie in skills of using standard technology and in experience of organizing labour-intensive production for re-export (Shi, 1998). We therefore expect that HMT firms are more competitive in labour rather than in technology-intensive industries.

We argue that the contrasting technological capabilities and business strategies of these two groups of FAs are key determinants of spillovers. Furthermore, the effects of country of origin on spillovers might manifest themselves differentially across industries, possibly linked to the incidence of LOEs of contrasting ownership. With their state-of-the-art technology and local market-orientation, there is greater scope for western MNEs to generate technological spillovers to LOEs in technology-intensive industries of Chinese manufacturing (Buckley, Clegg and Wang, 2002). On the other hand, the nature of the ownership advantages of HMT firms, and their industrial concentration within the standardised goods market segments of industries, suggests that the generation of any technological spillovers should be less *pro rata* than for western capital, or slower in its realization. Yet it is perfectly possible that HMT firms generate more non-technology related spillovers. Based on data for Lithuania, Smarzynska (2002) finds that productivity spillover effects are larger when foreign investors are domestic market, rather than export, oriented. It would be interesting to see if this finding also holds true for China, where western and HMT affiliates are typically identified, respectively as local market oriented and export oriented.

#### **Spillovers and its Distributional Effects among LOEs**

The literature suggests that the extent of spillovers depends on the actions of both foreign and locally-owned firms, and is not quasi-automatic (Meyer, 2004). The magnitude of spillover benefits that LOEs can derive from foreign presence depends largely on their own technological capabilities and initiatives (Liu et al., 2000). Thus, spillover benefits materialise if LOEs develop capabilities to decode, interpret and apply knowledge (Meyer, 2004). When domestic competitors cannot reverse engineer and profitably adapt MNEs' core technologies, they are unable to appropriate benefits from FDI spillovers. Therefore, positive spillovers are expected to only be available to LOEs that have developed superior absorptive capacity. This implies that aggregate studies may underestimate the true significance of such effects (Görg and Strobl, 2001). The perspective of absorptive capacity implies that future researchers should move beyond merely seeking a straightforward and direct nexus between foreign presence and LOEs' productivity, and begin investigating the 'black box' that contains the acknowledged, but unobserved, mediators of the relationship.

In terms of ownership, the potential beneficiaries of inward FDI in local Chinese industry broadly comprise state-owned enterprises (SOEs) and other locally-owned enterprises (OLOEs). The latter include collectively and privately-owned enterprises, among others. It is well recognized that differences in the structure of property rights between SOEs and OLOEs cause them to behave differently, leading to the underperformance of SOEs (Fan 1998; Perotti et al. 1999). While SOEs are the technologically better equipped of the two, OLOEs are more agile and responsive to profit opportunities, making them competitive, especially in the market for labour-intensive goods. By identifying SOEs and OLOEs separately we are able to explore the FDI-spillovers relationship within differing institutional settings, and therefore gain insights specifically into the Chinese context. This level of detail is expected to yield both conceptual richness and policy relevance.

The above discussion leads to the following hypotheses:

**Hypothesis 1:** The magnitude of the effect of overall foreign capital on the performance of LOEs is greater in technology-intensive industries than in labour-intensive industries.

**Hypothesis 2:** The magnitude of the effect of HMT capital is greater than that of the effect of western capital in labour-intensive industries on (a) all domestic firms; (b) SOEs; (c) OLOEs.

**Hypothesis 3:** The magnitude of the effect of western capital is greater than that of the effect of HMT capital in technology-intensive industries on (a) all domestic firms; (b) SOEs; (c) OLOEs.

**Hypothesis 4:** The magnitude of spillovers absorbed by OLOEs is greater than that of spillovers by SOEs in labour-intensive industries.

**Hypothesis 5:** The magnitude of spillovers absorbed by SOEs is greater than that of spillovers by OLOEs in technology-intensive industries.

**Hypothesis 6:** The magnitude of spillovers absorbed by OLOEs from HMT capital is greater than that of spillovers by SOEs from the same source in labour-intensive industries.

**Hypothesis 7:** The magnitude of spillovers absorbed by SOEs from western capital is greater than that of spillovers absorbed by OLOEs from the same source in technology intensive industries.

## Data and Methodology

We follow the standard approach prevailing in the study of spillovers, in which an augmented Cobb-Douglas production function is implemented (e.g., Aitken and Harrison, 1999). In this function, the output of LOEs is assumed to be a function of inputs, which include measures of foreign presence in the host industry and other regressors as controls. We interpret the coefficient estimates on the foreign presence regressor as evidence in support of spillovers from inward FDI to domestic firms' output.

$$Y_{(d,s,ol)} = C + \beta_1 K_{(d,s,ol)} + \beta_2 L_{(d,s,ol)} + \beta_3 INTERM_{(d,s,ol)} + \beta_4 MGT_{(d,s,ol)} + \beta_5 SFARE_{(d,s,ol)} + \beta_6 SIZE_{(d,s,ol)} + \beta_7 FP_{(i,-1)} + \varepsilon_i \quad (i = overall, htm, w) \quad (1)$$

Where  $d$  denotes domestic,  $s$  SOEs and  $ol$  other LOEs.  $Y$  is sales by LOEs and  $FP$  represents the level of presence of FAs, proxied by the share of foreign capital input in host industry. Görg and Strobl (2001) suggest that it is preferable to use alternative measures, rather than a single measure of foreign presence, when evaluating spillover effects. Following Buckley, Clegg and Wang (2002), we measure  $FP$  in three dimensions in this study: the capital share accounted for by all FAs in each industry ( $FP_{overall}$ ); the capital share accounted for by FAs originating from HMT in each industry ( $FP_{htm}$ ); the capital share accounted for by FAs originating from western countries in each industry ( $FP_w$ ). For all  $FP$  variables, a one-year lag is adopted to allow time for spillover effects to become observable. The adoption of a lag structure for the FDI variable ( $FP_{(i,-1)}$ ) also helps to address the question of causality with respect to spillovers<sup>iii</sup> (Haskel, Pereira and Slaughter, 2002). We expect that  $FP_i$  exerts a positive and significant impact on sales by LOEs ( $Y$ ).

$K$  and  $L$  are routine capital and labour, proxied by total received capital and total number of employees in each industry;  $INTERM$  is intermediate inputs, proxied by the difference between total sales and value-added in each industry;  $MGT$ ,  $SFARE$  and  $SIZE$  variables are management input, sales promotion input, and firm size economies of scale proxied by, respectively, management cost<sup>iv</sup> per employee, sales fare per worker, and net fixed assets per firm, by industry. Combined with the selection of  $FP$  variables, according to theory these control variables account for total factor productivity. The employment of these control variables increases our confidence in the robustness of the findings, through controlling for influences other than foreign presence.

In Equation (1) the data are transformed into natural logarithms, therefore Equation (1) should be taken as being linear in the logarithmic data. Ordinary least squares (OLS) regression is employed throughout. The model is estimated for different categories of locally-owned firms, with data aggregated across firms at the three-digit industry level. Given that small, medium, and large-sized firms, and industrial branches, are sampled together in our cross-sectional dataset, heteroscedasticity is expected to be widespread, and this was confirmed in preliminary specifications. Consequently, where the White-based F-statistic showed below the 5 percent level of significance, all variance-covariance matrices have been estimated according to White's (1980) method.

Equation (1) is a multi-equation model, and therefore forms the basis for the estimation of several regressions. This allows our investigation to explore variation by industry, by nationality of the foreign investor, and by ownership of LOEs, so corresponding to each of the hypotheses set out in Section 2.

Our empirical analysis is based on the Annual Industrial Report of China for 2001, compiled by the State Statistical Bureau of the People's Republic of China. Industry data is preferred because spillovers are commonly hypothesized to arise along industry or regional lines (Haskel, Pereira and Slaughter, 2002). In addition, there is considerable variation in the foreign presence variable at the industry level. There are 196 industries altogether, but our sample is reduced to 158 industries. This is because this study must be restricted on theoretical grounds to include only those industries where free entry and exit exist, in order to avoid biased results. Industries for which data are imperfect are also excluded.

In carrying out the empirical analysis, we divide the full sample into two sub-samples of equal size, according to the level of capital-labour ratio. The low capital-labour ratio group is labelled as 'labour-intensive industries' and the high capital-labour group as 'technology-intensive industries', with each consisting of 79 industries. The significant F test statistic of 90.366 justifies this classification of labour- versus technology- intensive industries at the 1 per cent level of significance<sup>v</sup>. This classification forms the basis of our analysis, as it allows us to examine the extent to which the magnitude of spillovers relates to the nature of industries under study. Indeed, all our hypotheses in section 2 are set out against categories of industries.

## Results

Table 1 displays the correlation matrix and descriptive statistics for the main independent and dependent variables. As can be seen, most of the correlations are small, accounting for little common variance, and therefore are not of present concern. The high correlation between  $K_d$  and  $L_d$  demonstrates the high capital-labour substitution effect within Chinese industry.

TABLE 1: DESCRIPTIVE STATISTICS AND CORRELATION MATRIX FOR SELECTED VARIABLES

Variables	Mean	S.D.	2	3	4	5	6	7	8	9	10
1. $K_d$	3.70	1.54	0.93	0.26	0.48	-0.32	-0.38	0.23	0.96	0.94	0.84
2. $L_d$	2.37	1.41		-0.01	0.29	-0.28	-0.33	0.25	0.94	0.83	0.89
3. $MGT$	-0.25	0.50			0.52	0.18	-0.01	-0.31	0.19	0.44	-0.05
4. $SIZE$	-1.08	1.08				-0.31	-0.21	-0.07	0.40	0.57	0.13
5. $FP_{overall}$	-1.53	1.04					0.24	0.32	-0.19	-0.28	-0.05
6. $FP_{hmt}$	-1.29	0.64						-0.62	-0.33	-0.41	-0.20
7. $FP_w$	-1.06	0.56							0.26	0.14	0.28
8. $Y_d$	4.87	1.47								0.91	0.89
9. $Y_s$	3.63	1.84									0.69
10. $Y_{ol}$	4.23	1.33									

Tables 2-4 report results estimated from the various regressions originating from Model (1). As indicated by the adjusted R squared and Ramsey tests, the augmented Cobb-Douglas production function fits the data very well. The F statistics reveal that the null hypothesis that the regression coefficients are jointly equal to zero can be rejected at the 1 per cent level for all regressions. This compares favourably to other spillover studies employing the same approach. Considering that this is a cross-sectional study, the models perform quite well. Because the

coefficients for *INTERM* and *SFARE* are consistently insignificant throughout almost all the regressions, these two variables are dropped in the presentation of the results.

TABLE 2: REGRESSION RESULTS

Dependent variable: $Y_d$	All LOEs in labour-intensive industries (N=79)		
	(2.1)	(2.2)	(2.3)
<i>C</i>	2.623 (16.45)***	2.718 (15.15)***	2.596 (14.57)***
<i>K</i>	0.424 (3.23)***	0.307 (2.61)***	0.347 (2.78)***
<i>L</i>	0.484 (3.53)***	0.614 (4.93)***	0.548 (3.99)***
<i>MGT</i>	-0.194 (-2.29)**	-0.123 (-1.40)	-0.277 (-2.67)***
<i>SIZE</i>	0.351 (4.52)***	0.352 (4.20)***	0.344 (4.01)***
$FP_{overall}$	0.121 (2.01)**		
$FP_{hmt}$		0.084 (8.80)***	
$FP_w$			0.054 (1.56)
Adjusted R square	0.977	0.978	0.975
F-value	673.202***	698.387***	611.32***
White test (cross term)	(2.969)***	(0.550)	(1.523)
Ramsey RESET (one term)	(0.185)	(0.044)	(0.073)
Dependent variable: $Y_d$	All LOEs in technology-intensive industries (N=79)		
	(2.4)	(2.5)	(2.6)
<i>C</i>	3.255 (10.21)***	3.459 (9.94)***	3.529 (11.06)***
<i>K</i>	0.137 (1.00)	-0.072 (-0.49)	-0.023 (-0.08)*
<i>L</i>	0.808 (6.09)***	0.979 (6.82)***	0.904 (6.14)***
<i>MGT</i>	0.148 (1.42)	0.354 (2.93)***	0.255 (1.91)*
<i>SIZE</i>	0.379 (4.27)***	0.354 (3.96)***	0.379 (4.98)***
$FP_{overall}$	0.170 (4.76)***		
$FP_{hmt}$		0.025 (0.42)	
$FP_w$			0.136 (1.90)*
Adjusted R square	0.950	0.937	0.940
F-value	299.825***	231.88***	245.978***
White test (cross term)	1.340	1.225	1.491
Ramsey RESET (one term)	0.071	1.030	0.025

Notes: (1) Figures in parentheses are t statistics (two-tailed tests); \*, \*\*, and \*\*\* denote significance at the 10%, 5% and 1% levels respectively. (2) Log Likelihood Ratio values are shown in Ramsey RESET.

The estimation of equation (1) for the full sample, without any distinction by ownership of LOEs, is reported in Table 2. The results in regressions (2.1) and (2.4) show that overall foreign presence ( $FP_{overall}$ ) has a positive and statistically significant impact on sales by LOEs in both labour- and technology-intensive industries. However, the coefficient for  $FP_{overall}$  is larger for the technology-intensive industries than for the labour-intensive industries, with a higher level of statistical significance. In order to formally evaluate the difference between the magnitudes of the coefficients for  $FP_{overall}$  in both regressions, the data for the two groups of industries were pooled, and a dummy variable test was conducted. The test confirms that although  $FP_{overall}$  is significant in both models, the difference in the size of the coefficients is indeed statistically significant. Our results thus lend support to our Hypothesis 1. From this we can infer that it is not simply the presence of FAs that generate spillovers, but also the technology intensity of these foreign firms. This finding supports the view that it is the low-cost access to leading-edge technologies of foreign firms that has produced a productivity-enhancing effect on LOEs (Feinberg and Majumdar, 2001). The difference that we observe may result from adjustment costs being higher in more labour-intensive, low-technology industries. The organizational ownership advantages of FAs may stimulate the adoption of new organizational structures in LOEs, but this process is likely to require radical (rather than incremental) organizational change, as radical change is frequently required in the case of firms in newly liberalised economies.

Breaking down the data further by ownership of foreign- and locally-owned firms, however, reveals sub-relationships that up until now have remained hidden in the aggregate relationship. Focusing on labour-intensive industries alone, we find that  $FP_{hmt}$  is significant in regressions (2.2) and (4.2) in tables 2 and 4, respectively, but not in regression (3.2) in Table 3. These results contrast with the insignificant  $FP_w$  in regressions (2.3), (3.3) and (4.3) in the same panel of these tables. These results indicate that the positive spillover effects in labour intensive industries are more closely associated with the presence of firms from HMT rather than western countries. This finding substantiates our Hypothesis 2 (a, c), but not (b).

These findings signal that spillover effects may be neither as uniform, nor as high, as many studies suggest when data are disaggregated. The assumed superiority of technology in FAs seems to matter less when these firms operate in labour-intensive industries. In these industries, foreign firms' advantages, such as the ability to adapt mature technologies to more labor-intensive contexts, and to local raw materials and marketing skills that enable the delivery of timely and uniform quality products to western markets, are more likely to be a source of spillovers. HMT firms, which are built on these types of advantage (Wells, 1993), therefore, appear to demonstrate a greater impact on LOEs than their western counterparts. In addition, there are reasons to expect a smaller technology gap between foreign and local firms in labour-intensive industries than in technology intensive industries, and this should facilitate spillovers (Perez, 1997).

TABLE 3: REGRESSION RESULTS FOR SOES

Dependent variable: $Y_s$	SOEs in labour-intensive industries (N=79)		
	(3.1)	(3.2)	(3.3)
<i>C</i>	2.705 (13.42)***	2.748 (13.51)***	2.646 (13.19)***
<i>K</i>	0.289 (3.84)***	0.265 (3.59)***	0.283 (3.74)***
<i>L</i>	0.646 (7.60)***	0.678 (8.10)***	0.638 (7.37)***
<i>MGT</i>	0.362 (4.16)***	0.403 (4.55)***	0.355 (3.65)***
<i>SIZE</i>	0.601 (5.82)***	0.610 (5.82)***	0.599 (5.91)**
$FP_{overall}$	0.065 (1.33)		
$FP_{hmt}$		0.066 (1.26)	
$FP_w$			0.019 (0.47)
Adjusted R square	0.969	0.972	0.969
F-value	491.3604***	512.52***	476.477***
White test (Cross term)	1.10	1.15	1.31
Ramsey RESET (one term)	0.11	0.26	0.34
Dependent variable: $Y_s$	SOEs in technology-intensive industries (N=79)		
	(3.4)	(3.5)	(3.6)
<i>C</i>	2.597 (9.55)***	2.421 (7.59)***	2.729 (11.21)***
<i>K</i>	0.333 (2.93)***	0.259 (2.10)**	0.284 (2.36)**
<i>L</i>	0.627 (5.53)***	0.669 (5.39)***	0.631 (5.21)***
<i>MGT</i>	0.350 (2.27)**	0.493 (2.97)***	0.433 (2.58)***
<i>SIZE</i>	0.403 (5.14)***	0.360 (4.73)***	0.403 (6.70)***
$FP_{overall}$	0.154 (3.75)***		
$FP_{hmt}$		-0.045 (-0.66)	
$FP_w$			0.204 (2.91)***
Adjusted R square	0.964	0.957	0.962
F-value	420.487***	351.14***	398.93***
White test (Cross term)	1.534	2.490***	1.99**
Ramsey RESET (one term)	0.107	1.177	0.125

Notes: (1) Figures in parentheses are t statistics (two-tailed tests); \*, \*\*, and \*\*\* denote significance at the 10%, 5% and 1% levels respectively. (2) Log Likelihood Ratio values are shown in Ramsey RESET.

TABLE 4: REGRESSION RESULTS FOR OLOES

Dependent variable: $Y_{ot}$	OLOEs in labour-intensive industries (N=79)		
	(4.1)	(4.2)	(4.3)
$C$	3.279 (11.75)***	3.317 (14.47)***	3.224 (12.61)***
$K$	0.049 (0.76)	0.038 (0.78)	0.054 (0.868)
$L$	0.903 (13.93)***	0.916 (18.36)***	0.894 (13.95)***
$MGT$	0.193 (2.30)**	0.194 (2.46)**	0.156 (1.74)*
$SIZE$	0.419 (3.39)***	0.416 (3.57)***	0.409 (3.32)***
$FP_{overall}$	0.083 (3.71)***		
$FP_{hmt}$		0.054 (5.03)***	
$FP_w$			0.023 (0.58)
Adjusted R square	0.975	0.979	0.976
F-value	611.144***	714.877***	613.97***
White test (cross term)	2.365***	1.545	3.242***
Ramsey RESET (one term)	0.007	0.028	0.205
Dependent variable: $Y_{ot}$	OLOEs in technology-intensive industries (N=79)		
	(4.4)	(4.5)	(4.6)
$C$	3.879 (11.11)***	3.732 (10.79)***	3.779 (10.21)***
$K$	0.053 (0.40)	0.039 (0.30)	0.041 (0.32)
$L$	0.892 (8.37)***	0.899 (8.33)***	0.896 (8.41)***
$MGT$	0.054 (0.69)	0.096 (1.17)	0.092 (1.15)
$SIZE$	0.710 (6.08)***	0.684 (5.93)***	0.689 (5.83)***
$FP_{overall}$	0.029 (0.71)		
$FP_{hmt}$		-0.020 (-0.41)	
$FP_w$			0.014 (0.19)
Adjusted R square	0.951	0.945	
F-value	266.48***	236.74***	
White test (cross term)	3.614***	2.811***	2.625
Ramsey RESET (one term)	1.591	1.658	1.804

Notes: (1) Figures in parentheses are t statistics (two-tailed tests); \*, \*\*, and \*\*\* denote significance at the 10%, 5% and 1% levels respectively. (2) Log Likelihood Ratio values are shown in Ramsey RESET.

Turning to technology-intensive industries, we found that the significance of  $FP_{hmt}$  no longer holds, as shown in (2.5), (3.5) and (4.5) in tables 2-4 throughout<sup>vi</sup>. In contrast,  $FP_w$  becomes significant in (2.6), (3.6), though not in (4.6). These results suggest that compared with HMT firms, western affiliates in technology-intensive

industries generate more spillovers to LOEs in general, and to SOEs in particular, but not to OLOEs. Our Hypotheses 3 (a) and (b) are supported, but (c) is not. Again, the distribution of spillovers appears to hinge on the nature of the ownership advantages of foreign firms and of the industries involved. The ownership of non-technology related advantages leads HMT firms to generate limited spillovers in technology intensive industries, compared with technologically advanced western firms. These mirror our findings for the labour intensive industries. It is particularly worth noting, however, that  $FP_w$  is significant in (3.6), consistent with Buckley, Clegg and Wang (2005b) in which it is found that Chinese SOEs have particularly benefited from joint ventures with foreign (western) affiliates in (technology intensive) Chinese electronics industry. The insignificant  $FP_w$  coefficient in (4.6) also suggests that relatively large-sized western firms do not interact with smaller LOEs in technology intensive industries. A possible reason is that they operate within different market segments of the industry.

We now focus on how spillovers are associated with the different ownership categories of LOEs, as shown in Tables 3 and 4. It emerged that  $FP_{overall}$  is statistically insignificant in (3.1) but significant in (4.1). These results suggest that in China's labour-intensive industries OLOEs benefit more from the presence of FAs as a whole than SOEs, providing strong support for Hypothesis 4. While it may be correct to attribute the limited spillovers enjoyed by SOEs to their generally low level of competitiveness, absorptive capability and motivation to learn as compared with OLOEs (Buckley, Clegg and Wang, 2002), there is industry specific reason. As pointed out above, the ownership advantages of FAs in labour-intensive industries are characteristically organizational in nature. This coincides with the typical weakness of Chinese SOEs: intrinsic rigidity in governance structure inherited from the central planning regime. In comparative terms, SOEs' advantages lie more in technology and less in organization. The mismatch of ownership advantages between FAs and SOEs provides a good reason why SOEs are less likely to benefit from foreign presence in labour intensive industries.

A different story, however, emerges in technology-intensive industries, as shown in the bottom section of Tables 3 and 4. Overall foreign presence ( $FP_{overall}$ ) is significant in regressions (3.4), but not in (4.4), implying that SOEs reap greater spillover benefits than OLOEs in technology intensive industries. Our data thus substantiate Hypothesis 5. Although Chinese SOEs have long been criticized for weaknesses such as low a motivation to learn, they are nevertheless technologically better equipped than OLOEs, conducting the bulk of R&D in Chinese-owned industry. This advantage in technology mitigates their organizational weaknesses, enabling SOEs to better exploit new technological opportunities generated by FDI. This result might also signal a positive role for international joint ventures between western MNEs and Chinese SOEs in capital and technology intensive industries, benefiting the Chinese parent and its affiliates. A large number of high-technology western MNEs hold joint ventures with SOEs (for example, Volkswagen (China), and the local secondary affiliates of Motorola (China)). These close and highly productive partnerships may be responsible for a sort of 'crowding in' effect.

Both SOEs and OLOEs seem to benefit from the presence of HMT affiliates ( $FP_{hmt}$ ) in labour-intensive industries, as shown in (3.2) and (4.2) of tables 3 and 4, though  $FP_{hmt}$  in the regression (3.2) fails to reach significance. These results underscore the concentration of HMT capital in labour intensive industries, and which confers greater spillover benefits to OLOEs than to SOEs. This finding corroborates Hypothesis 6. The result for SOEs, though insignificant, contrasts sharply with Buckley, Clegg and Wang (2002), which employed data on China for 1995 and revealed a negative link between SOEs' productivity and the presence of HMT affiliates. The explanation may lie in the progressive Chinese reform process, which (since the early 1980s) has resulted in the bankruptcy and exit of numerous inefficient Chinese SOEs in labour intensive industries. The SOEs that survive are the more competitive firms with superior absorptive capacity, and so better able to benefit from spillovers from HMT firms.

Western capital ( $FP_w$ ) yields greater positive spillovers for SOEs than OLOEs in technology intensive industries, according to regressions (3.6) and (4.6). Thus, Hypothesis 7 receives substantial support. This differential impact on LOEs' productivity highlights western affiliates' ownership advantages in proprietary technology, which is best suited to the more technologically advanced firms and sectors. The interaction between western firms and

SOEs can be said to produce a ‘crowding in’ effect in the form of improved performance in SOEs. In contrast, the mismatch between the ownership advantage of western firms and the abilities of OLOEs limits the scope for spillover benefits.

TABLE 5: HYPOTHESES AND THE ESTIMATED RESULTS

Hypotheses	Regressions	Support (S)/Not support (N) Hypotheses
H1	(2.1), (2.4)	S
H2: (a)	(2.2), (2.3)	S
(b)	(3.2), (3.3)	N
(c)	(4.2), (4.3)	S
H3: (a)	(2.5), (2.6)	S
(b)	(3.5), (3.6)	S
(c)	(4.5), (4.6)	N
H4	(3.1), (4.1)	S
H5	(3.4), (4.4)	S
H6	(3.2), (4.2)	S
H7	(3.6), (4.6)	S

## Conclusions

Governments of developing and transition economies pay special attention to the impact of FDI, using this as a criterion for measuring the success of their FDI policy. Such governments often favour inward FDI in technology-intensive industries over labour-intensive industries, believing that this will bring in new technologies and know-how and therefore more spillovers to enhance the competitiveness of LOEs. In this paper, we leave aside the issue of whether this perception is true, and instead test whether the magnitude of spillovers is associated with the degree of technology (labour) intensity of the host industry involved.

Overall, we find evidence consistent with the existence of greater positive spillovers from inward FDI in technology-intensive compared with labour-intensive industries. This finding agrees broadly with the conventional hypothesis that FDI by MNEs is based on technological ownership advantages. It also justifies the policies of governments of developing countries, such as China, which have in recent years offered generous incentives packages to attract foreign investors to high technology industries.

Our study confirms that distinguishing between different categories of foreign investor, as theory predicts, is an essential step in analyzing the impact of inward FDI. We find that HMT affiliates generate more spillovers to LOEs than western affiliates in labour-intensive industries. In marked contrast, in technology-intensive industries, the presence of western affiliates exerts a larger impact on the performance of LOEs than does that of HMT affiliates. From these findings we conclude that foreign affiliates’ technology intensity is a key driver of LOEs’ growth.

The procedure of drawing a clear distinction between different categories of ownership in domestically-owned Chinese firms is also supported by our results. We find that in general both SOEs and OLOEs seem to benefit more from inward FDI in technology intensive industries than in labour intensive industries. Our results indicate, however, that SOEs benefit from the presence of HMT affiliates in labour-intensive industries, and from the presence of western affiliates in technology-intensive industries. In contrast, OLOEs seem only to benefit from the presence of HMT affiliates in labour-intensive industries.

In terms of methodology our study represents a step forward in understanding the determinants of spillovers from inward FDI. New insight has been gained from the breaking down of industries into labour intensive and technology intensive groups, of foreign ownership into HMT and western categories, and of locally-owned firms into SOEs and OLOEs. The paper presents a clue as to the true diversity of issues that arise within the complex area of spillovers.

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## End Notes

<sup>i</sup> Makino, et al. (2002) argue that access to natural country-specific endowments such as pooled low-cost labour markets in a less developed country does not necessarily require the investing firms to possess firm-specific advantages in labour intensive production capabilities because such endowments are available for any firms located in the same country.

<sup>ii</sup> Some studies find that foreign presence lowers the average dispersion of a sector's productivity, and that this effect is more significant in sectors with simpler technology (Haddad and Harrison 1993; Blomström, 1986). The implication is that the presence of FAs forces LOEs to become more productive in sectors where best practice technology lies within their capability (Blomström and Kokko, 1998).

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<sup>iii</sup> The cross-sectional association between FDI and industry productivity may be a result of MNEs entering industries with higher productivity, rather than of productivity being raised by FDI (Meyer, 2004).

<sup>iv</sup> This measure of managerial input is recorded in the Chinese statistical source, and refers to the salaries of managers plus other fees that facilitate transactions.

<sup>v</sup> Most research does not test for the validity of pooling. However, this does not mean that the assumption that parameter values are the same for all industries is justified. Pooling might be especially problematic in a case like the present one, where the analytical framework is based on the proposition that there may be structural differences between labour- and technology-intensive industries.

<sup>vi</sup>  $FP_{hmt}$  even turns out to be negative in regressions (3.5) and (4.5), though not statistically significant. This surprising result mirrors Hu and Jefferson (2002) which finds that the presence of HMT capital depresses the productivity of SOEs.

# An Analysis of B-share Discounts in the Chinese Stock Market

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## Abstract

In contrast to most of other countries, Chinese foreign class B shares are traded at a discount rather than a premium relative to the prices of domestic A shares. This is called “Chinese discount puzzle”. In this paper, in light of Fama & French’s method of dynamic portfolios, we categorize all the listed companies that issued both A shares and B shares in Shanghai securities market into 9 portfolios ascendingly according to factor  $F$ . And the portfolios are reshuffled each month. In this way, with an extensive social investigation, the factor analysis and various panel data models, we reveal that the capital and investment restrictions, the supply factor, the relative liquidity and the behavioral factor are the main reasons for the B-share price discounts. Particularly, the method of dynamic portfolios is firstly used to analyze the stock discount or premium phenomena in this field.

## Introduction

Since the 1980s, with rapid development of economic globalization, the international economies more and more depend on each other and many newly-developing countries open their securities markets to foreign investors. However, taking into consideration of the safety of national economy and capital market, many of the countries impose restrictions on investments or ownership: on the one hand, they take measures to restrain national capital from flowing out; on the other hand, they control the investments of foreign capital. Both of the restrictions induce some degree of segmentation between the newly-developing countries and international capital market. Usually, in the emerging capital markets, their stock markets are segmented to two classes: restricted shares which could only be held and traded by domestic investors and unrestricted shares that could be purchased and possessed by both domestic and foreign investors. Although restricted and unrestricted shareholders have the same rights and entitlements, it has been observed in most markets that the unrestricted shares are traded at a premium relative to restricted shares, as the following Table 1 shows:

TABLE 1: THE RATIOS OF UNRESTRICTED STOCK PREMIUM OF TEN COUNTRIES (REGIONS)

Country	Premium (%)	Country	Premium (%)
Indonesia	32.9	Swiss	18.7
Malaysian	29.2	Mexico	1.4
Singapore	32.4	Norway	6.7
Philippines	32.6	China Taiwan	7.0
Thailand	24.8	China	-24.6

Resource: Bailey, Chung and Kang (1999)“foreign ownership restrictions and equity price premiums”

From Table 1, we can find that: in the markets of Swiss, Mexico, Norway, Indonesia, Singapore, et .the prices of the unrestricted stocks are generally higher than those of the restricted stocks; that means “premium phenomena ” appears. Besides, the premium degree of the unrestricted stocks in mature markets such as Swiss, Mexico, Norway, is lower than that of the newly-developing countries such as Indonesia, Malaysian, Philippines and Thailand. Particularly, compared with other stock markets with similar ownership segmentations, only Chinese stock market has substantial and persistent price discounts on unrestricted shares (B-share) relative to restricted shares (A-share). Then, how to explain the particular phenomena of China? What factors induce B-share discounts

of Chinese stock? Are there any serious defects in the policies of Chinese securities? On February 19, 2001, the Chinese Securities Regulatory Commission announced that Chinese residents would be allowed to own B-share classes of stocks, which triggered a dramatic decline of B-share discounts from 76.8 percent down to 36.7 percent (as shown in table 2). Then, do the factors leading to the B-share discounts change? Understanding and clarifying the changes and factors are very useful and important for us to develop our stock market and capital market correctly and healthfully.

## **Disentangling Competing Hypotheses of the B-share Price Discount**

The China's B-share price discount puzzle is a challenge for scholars in this field. Over the years there have been various explanations for B-share discounts in the Chinese stock market, which we outline as follows:

Bailey (1994) was the first to uncover the discount puzzle with only preliminary data at the start of the market for the period from March 1992 to March 1993. Over the years, he attributes it to the lower cost of capital for A-share stocks which is caused by the lack of alternatives to low-yielding bank accounts that was driving domestic Chinese savings into stock investments. Brennan and Cao (1997), Chakavarty, Sarkar and Wu (1998) show that it is the asymmetry in market information that induced the substantial price discount of B-share in the Chinese stock market. They thought compared with domestic investors, the foreign investors have less information about the value of domestic assets due to language barriers and different accounting systems and so on, consequently, they demand a risk premium to compensate for their disadvantage in information relative to domestic investors. Another explanation for the Chinese B-share discounts is the liquidity hypothesis. Amihud and Mendelson (1986) argue that relatively illiquid stocks have a higher expected return and lower price to compensate increased trading costs. Chen, Lee, and Rui (2001) find that the relative illiquidity of B-share may be the primary reason for the price disparity in Chinese stock market. Some scholars think the reason for Chinese B-share discounts is the differential demand elasticity hypothesis. Stulz and Wasserfallen (1995) suggest that an investment home bias for foreign investors combined with a high demand for limited local country investments may lead to price and demand imbalance among share classes. Sun and Tong (2000) propose that with the existence of the H-share and red-chip markets, B-share market have good alternatives so that foreign investors' demand for B-share can be quite elastic. Gordon and Li (1999) postulate that legal restrictions create a segmented market and limit investment opportunities, and so domestic investors have an inelastic demand for equity due to insufficient supply. Consequently, domestic investors push up A-share prices, which induce B-share price discounts. Another explanation is the differential risk attitude hypothesis. Bailey and Jagtiani (1994) and Ma (1996) show that the price difference may be due to the investors' attitudes toward risks. In their arguments, Chinese markets are highly speculative, and domestic investors may be highly risk tolerant and are to earn money in the short run. To sum up, the explanations for the Chinese B-share discounts are inconclusive, and the phenomenon remains a puzzle. Bailey, Chung and Kang (1999) conclude that the B-share price discount in China is "strange" and "difficult to explain".

All the scholars discuss the reasons for Chinese B-share discounts from different views and draw some useful and constructive conclusions, however, we don't think they have found the real factors leading to Chinese B-share discounts, that is why we continue to study this phenomenon. Although our main conclusions are partially similar to Gordon and Li (1999), Gordon and Li (1999) just explained the phenomenon qualitatively rather than quantitatively.

## **The Shanghai Stock Exchanges and the CSRC's Opening of the B-shares in 2001**

The Shanghai Stock Exchange (SHSE) was established on December 19, 1990, as of December 2003, 726 companies issued A shares and 54 companies issued B shares on the SHSE, with a total capitalization value of RMB 2,614 billion. To enhance the liquidity of the B-share markets, the Chinese Securities Regulatory Commission announced the "Notices on issues related to individual domestic residents investing in foreign currency stocks listed on the domestic stock markets" on February 19, 2001. The markets responded very enthusiastically. In the three months after the announcement, the domestic B-share brokerage accounts on the SHSE increased from 152,000 to 577,000, the Shanghai SE B shares index increased by 178% between February 19, 2001 and June 1, 2001, and the Shanghai

SE A-share index increased by 10.9% for the same period. Figure 1 shows the impact of the event on the B-share price discounts.



Notes: the discount is the average of the 38 B-share price discounts per month; the period is from January 1997 to December 2003

Fig.1 presents the distribution of the B-share price discounts on the Shanghai Stock markets during January 1997 to December 2003. We can find that the B-share price discounts have a dramatic decline after February 2001 when the individual domestic residents are allowed to hold and purchase the B-share stocks. With T-Test procedure, we compared the average B-share price discounts between the two periods. As in following Table 2:

TABLE 2: THE COMPARISON OF B-SHARE PRICE DISCOUNTS IN SHANGHAI STOCK MARKET BEFORE AND AFTER 2001

Variable	N	Mean	Std Dev	Std Err	Minimum	Maximum
DisB2001	50	0.7669	0.0558	0.0079	0.6593	0.8658
DisA2001	34	0.3672	0.0456	0.0078	0.2792	0.498
T-Tests						
Variable	Method	Variances	DF	t Value	Pr >  t	
DisB2001	Pooled Equal	82	-34.61	<.0001		
DisA2001	Satterthwaite Unequal	79.2	-35.96	<.0001		

Notes: the B-share price discounts from January 1997 to December 2000 are compared with those from January 2001 to December 2003

Table 2 shows that in these two periods, the average B-share discount changed prominently from 0.7669 to 0.3672 and the difference is 0.3997. However, the variances of the B-share discounts in these two periods are almost equal. This proves that the volatility is not changed obviously after 2001. Although the average B-share discount from January 1997 to December 2000 is higher than that from January 2001 to December 2003. Since the discounts are different, then, what are the main factors leading to the Chinese B-share price discounts?

## Potential Determinants of B-share Price Discounts

The B-share price discount is defined as the ratio of the difference between the A-share price and the B-share price to the A-share price, the formula is defined as follows:  $DIS_{i,t} = (P_{Ai,t} - P_{Bi,t}) / P_{Ai,t}$ .

$\beta ba_i$  represents relative risk, it is the ratio of B-share beta to A-share beta, which is calculated according to the standard market model as the systematic risk measure. By the asset pricing theory, the higher is the risk, and the lower is the price. So the coefficient of the variable will be expected positive.

$Changeba_i$  is the ratio of the turnover of B-share to that of A-share for stock  $i$ , as a proxy for the relative liquidity. The turnover is defined as the ratio of the number of shares traded to the number of shares tradable. We will expect to observe a negative relationship between the discount and relative turnover by the liquidity hypothesis.

$Tradeba_i$  is ratio of the number of B shares traded to the number of A-shares traded for stock  $i$ , as another proxy for relative liquidity, according to the liquidity hypothesis, the variable has negative relationship with the discount.

$NFT_i$  one proxy of the behavioral factors, is the ratio of non-tradable shares to total shares. It is the unique system to divide stocks into tradable stock and non-tradable stock in Chinese stock market. According to the different investment rational hypothesis, compared with domestic investors, the foreign investors pay more attention to the ratio of the non-tradable shares to total shares, the higher is the ratio, the lower is the price of B-share price, so we can expect the positive relationship between the B-share discounts and the variable.

$SIZE_i$  stands for the size of a firm for stock  $i$ , which is defined as  $SIZE_i = P_A \times S_A + P_B \times S_B$ , according to the asymmetry information hypothesis, due to language barriers, different accounting standards, and lack of reliable information, it is more difficult for foreign investors than domestic investors to acquire and assess information about the local economy and firms. And companies of larger scales have more influence, thus it's easier for foreign investors to acquire and assess the information about them. So, we can expect the negative relationship between the variable and the B-share price discount.

$RAB_i$  is the ratio of tradable A-shares to tradable B-shares, which is defined as  $RAB_i = S_A / S_B \cdot S_A$  is the supply of A-shares, which means tradable A-shares, and  $S_B$  is the supply of B shares, which means tradable B-shares for stock  $i$ . According to the differential demand elasticity hypothesis, the more supply of A-shares relative to B-shares leads to the less B-share discounts. So the coefficient of  $RAB_i$  is expected negative.

All the above variables are chosen according to some representative hypotheses and their models which are put forward by foreign scholars to explain international segmentation markets; however, are they suitable for Chinese stock market? Are they the main factors to explain B-share price discounts? How to find and demonstrate what factors induce Chinese B-share price discounts?

To answer these questions correctly, in August 2004, we went to Shanghai city to make a social investigation. We interviewed many large-scale financial institutions, Stock Exchanges and research departments and we conversed with the exchange brokers, securities analysts and scholars about the puzzle of "Chinese B-share price discounts". Almost all of them considered that the main reason for Chinese B-share price discounts is the capital and investment restriction, to be specific, because Chinese government forbids domestic investors to purchase and invest foreign assets freely. And with the existence of the major non-tradable shares (about average 66 percent of the total shares in Chinese stock markets), the tradable shares are very scarce in the Chinese stock market that is an enormous capital market. On the other hand, there are few available assets for the domestic residents to invest, so the domestic residents have to accept the A-share stocks with higher risks and lower returns compared with foreign investors who can invest in many other countries and in various kinds of assets freely.

Although some domestic residents are allowed to hold and purchase the B-shares from February 19,2001, it is limited to individuals rather than corporations. So, the B-share prices still remain at a discount after prominently declining in response to the event (that is, the lifting of ownership restrictions).

## Factor Analysis and Dynamic Portfolio

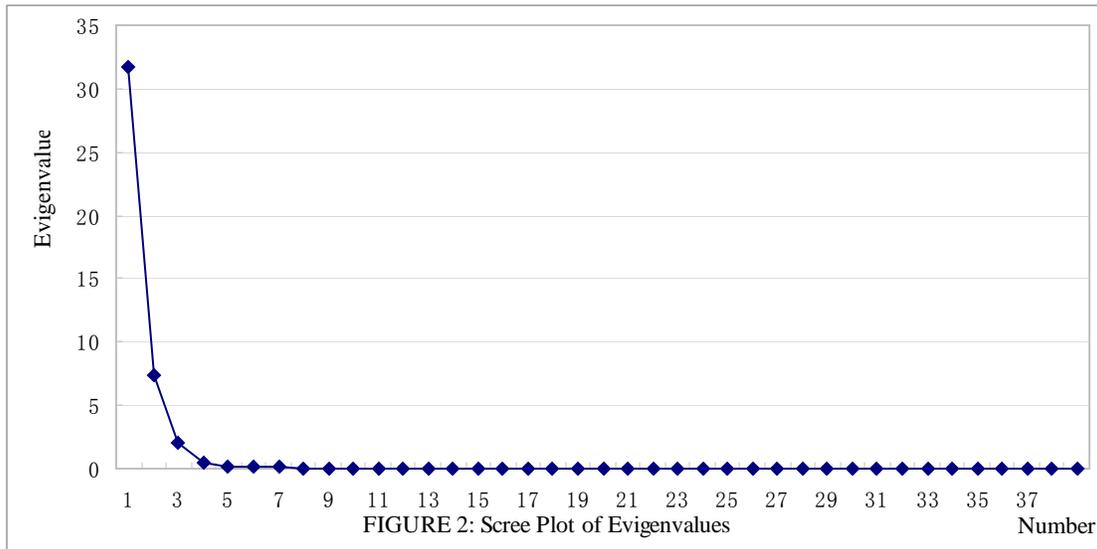
In order to find out how many main factors induce the discounts, we conduct factor analysis of the B-share price discounts by the program of SAS8.2; the results are as following Table 3 and Fig. 2:

TABLE 3: THE FACTOR ANALYSIS OF B-SHARE PRICE DISCOUNTS IN SHANGHAI STOCK MARKET

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	31.6774267	24.362187	0.89051	0.89051
2	7.31524	5.253473	1.0312	0.9051
3	2.0617607	1.5587881	0.0589	0.9640
4	0.5029726	0.3019455	0.0144	0.9783
5	0.2010271	0.0798214	0.0057	0.9841
6	0.1212057	0.0260347	0.0035	0.9876
7	0.0951710	0.0264595	0.0027	0.9903
λ	λ	λ	λ	λ
37	0.0002964	0.0001295	0.0000	1.0000
38	0.0001669	0.0001045	0.0000	1.0000

Notes: the data come from CCERTM, 38 companies that issue both A-shares and B-shares, and the period is from January 1997 to December 2003, 84 months in total.

Table 3 shows us the results of factor analysis with the program of principal component analysis. Eigenvalue is the characteristic value of correlation matrix of the specimen. With  $\hat{\lambda}_1 = 31.67743$ ,  $\hat{\lambda}_2 = 7.31524$ ,  $\hat{\lambda}_3 = 2.06176$  both of them are larger than 0.7; Difference is the difference of the two characteristic values; Proportion is the ratio of the variance of common factor to total factor, the variance of the first common factor is equal to 89.015 percent, this means the first common factor can explain 89.051 percent of the discounts; the cumulative variance of the first and the second and the third common factor is 96.4 percent, this means the cumulative variance can explain 96.4 percent of the discounts. So, we choose the three or four main factors to explain Chinese B-share price discounts. Figure 2 is the Scree Plot of Egenvalues from which we can find that if we choose more than three factors, the descent of the characteristic value is slow, so, according to the rule of Scree graph, the number of the main factors leading to B-share price discounts is three or four.



Notes: the data come from CCERTM, 38 companies that issue both A-shares and B-shares, and the period is from January 1997 to December 2003, 84 months in total.

To precisely analyze the influence of *SIZE*, *RAB*, *NFT*, *NE*, *TRADEBA*, *CHANGEBA*,  $\beta$ *BA* and *COR* on B-share discounts, in the light of Fama & French's method of dynamic portfolio, we categorize all the listed companies which issued both A-shares and B-shares in Shanghai stock market before 1997 into 9 portfolios ascendingly according to factor *F* (*F* represents one of *SIZE*, *RAB*, *NFT*, *NE*, *TRADEBA*, *CHANGEBA*,  $\beta$ *BA* and *COR*). The numbers of stocks in each portfolio are almost same. And the portfolios are reshuffled each month. In this way, we work out the time series data of the discounts (the stocks are equally weighted) and other variables for each portfolio. Then, we count the averages of the variables of each portfolio. The statistical results are showed in Table 4:

TABLE 4: THE AVERAGE OF VARIABLES ACCORDING TO FACTOR *F*

Portfolio	<i>F</i> is <i>Size</i>		<i>F</i> is <i>Rab</i>		<i>F</i> is <i>nft</i>	
	<i>dis</i>	<i>Size</i>	<i>dis</i>	<i>Rab</i>	<i>dis</i>	<i>nft</i>
1-small	0.6884	0.1647	0.7461	0.1020	0.5977	0.3861
2	0.6843	0.2088	0.7166	0.1692	0.6023	0.4339
3	0.6859	0.2496	0.7082	0.2038	0.6313	0.4696
4	0.6739	0.2853	0.6999	0.2284	0.6490	0.5066
5	0.6416	0.3246	0.6865	0.2678	0.6659	0.5584
6	0.6624	0.3938	0.6438	0.3100	0.6938	0.5995
7	0.6169	0.5138	0.6085	0.4423	0.7025	0.6273
8	0.6328	0.6619	0.5944	0.5840	0.7050	0.6551
9-large	0.7061	0.9279	0.5859	1.1630	0.7432	0.6895

Portfolio	<i>F</i> is <i>Tradeba</i>		<i>F</i> is <i>Changeba</i>		<i>F</i> is $\beta ba$	
	<i>dis</i>	<i>Tradeba</i>	<i>dis</i>	<i>Changeba</i>	<i>dis</i>	$\beta ba$
1-small	0.6129	0.4522	0.6926	0.1893	0.6680	0.5775
2	0.6454	0.8171	0.6891	0.2629	0.6446	0.6617
3	0.6652	1.0192	0.6884	0.3035	0.6529	0.7433
4	0.6755	1.1766	0.6776	0.3519	0.6583	0.8304
5	0.6400	1.4205	0.6774	0.4070	0.6475	0.9136
6	0.6555	1.6189	0.6760	0.4748	0.6698	0.9836
7	0.6656	1.9833	0.6747	0.5620	0.6546	1.0999
8	0.7217	2.6671	0.6307	0.6759	0.6742	1.2264
9-large	0.7120	4.0252	0.6098	1.1549	0.7094	1.6476

Notes: the period is from January 1997 to December 2003, 84 months and 38 double-listed companies in total in Shanghai Securities market

According to the data of dynamic portfolio in Table 4, we count the correlative matrix of the variables to better understand the relations among the variables. The results are as follows in Table 5:

TABLE 5: THE CORRELATIONS OF THE VARIABLES

	<i>dis</i>	<i>Size</i>	<i>Rab</i>	<i>nft</i>	<i>Tradeba</i>	<i>Changeba</i>	$\beta ba$	<i>D</i>
<i>Size</i>	-0.1046							
<i>Rab</i>	-0.3395	0.1033						
<i>nft</i>	0.4213	0.1721	-0.6186					
<i>Tradeba</i>	-0.4421	0.2645	-0.1667	0.0061				
<i>Changeba</i>	-0.5386	0.2583	0.2509	-0.2417	0.7550			
$\beta ba$	0.1746	0.1185	0.0001	0.0953	-0.1450	-0.1987		
<i>D</i>	0.9549	-0.0601	-0.1534	0.2585	-0.5092	-0.4803	0.1343	1.000

Notes: table 5 is based on the data of all the portfolios, 4536 groups of data in total. Additionally, figure 1 shows us that the B-share price discounts are changed prominently after February 2001. So, we should insert a dummy variable *D* (*D* = 1 for the period from January 1997 to December 2000 and *D* = 0 for the period from January 2001 to December 2003)

Table 5 reports the bivariate correlations among the discount and *Size*, as well as *Rab*, *nft*, *Tradeba*, *Changeba*,  $\beta ba$  and *D*. The overall results suggest that the discount is highly correlated with the variable *D* (the correlation coefficient  $\rho = 0.9549$ ) and are unlikely to be affected by the variable *Size* (the correlation coefficient  $\rho = -0.1046$ ). And the correlation coefficient for *Tradeba* and *Changeba* is positive and significant (the correlation coefficient  $\rho = 0.7550$ ), which may be leading to multicollinearity in the following penal data models, and the correlation coefficients for *Tradeba* and *nft*,  $\beta ba$  and *Rab* are not different from zero. In addition, all the coefficients accord with the economic explanations.

## Panel Data Models

To find out the two or three main factors inducing Chinese B-share price discounts, we employ a panel data analysis following Chen, Lee and Rui (2001). This approach allows us to analyze the cross-sectional and time-series factors that influence the B-share price discounts to differentiate the empirical implications of the hypotheses. We estimate a multivariate regression model using maximum likelihood with a heteroscedasticity-consistent covariance matrix of the residuals to adjust standard errors with firm fixed effects. With the data of the above dynamic portfolios, we estimate the following panel data model:

$$Dis_{it} = \alpha_0 + \alpha_1 Size_{it} + \alpha_2 Rab_{it} + \alpha_3 nft_{it} + \alpha_4 Tradeba_{it} + \alpha_5 Changeba_{it} + \alpha_6 \beta ba_{it} + \alpha_7 D_{it} + \varepsilon_{it} \quad (1)$$

The results are as follows in Table 6.

TABLE 6: THE RESULTS OF PANEL REGRESSIONS

Model	$C_{it}$	$Size_{it}$	$Rab_{it}$	$nft_{it}$	$Tradeba_{it}$	$Changeba_{it}$	$\beta ba_{it}$	$D_{it}$	Adj. $R^2$
1	0.705*** (30.49)	-0.089* (-1.888)							0.0079
2	0.773*** (40.67)		-0.268*** (-6.478)						0.1125
3	0.0493 (0.661)			1.123*** (8.336)					0.1749
4	0.746*** (58.39)				-0.045*** (-8.844)				0.1929
5	0.748*** (67.28)					-0.1627*** (-11.47)			0.2879
6	0.554*** (15.09)						0.115*** (3.182)		0.027
7	0.493*** (116.3)							0.346*** (57.69)	0.9115
8	0.511*** (67.25)	-0.041*** (-2.894)						0.345*** (58.07)	0.9135
9	0.561*** (104.3)		-0.156*** (-15.65)					0.335*** (73.17)	0.9496
10	0.228*** (11.64)			0.498*** (13.73)				0.328*** (66.55)	0.9441
11	0.477*** (71.72)				-0.006*** (3.142)			0.357*** (51.93)	0.9139
12	0.518*** (87.66)					-0.0314*** (-5.7739)		0.328*** (50.31)	0.9196
13	0.464*** (41.95)						0.031*** (2.859)	0.344*** (57.42)	0.9134
14	0.571*** (82.40)	-0.025*** (-2.326)	-0.154*** (-15.46)					0.334*** (73.49)	0.9503

15	0.396 <sup>***</sup> (15.70)		-0.108 <sup>***</sup> (-9.212)	0.271 <sup>***</sup> (6.669)				0.329 <sup>***</sup> (74.82)	0.9557
16	0.563 <sup>***</sup> (73.63)		-0.157 <sup>***</sup> (-15.08)		-0.000635 (-0.4130)			0.334 <sup>***</sup> (60.86)	0.9495
17	0.571 <sup>***</sup> (98.43)		-0.147 <sup>***</sup> (-14.85)			-0.01838 <sup>***</sup> (-4.2972)		0.325 <sup>***</sup> (64.66)	0.9522
18	0.529 <sup>***</sup> (57.72)		-0.157 <sup>***</sup> (-16.13)				0.034 <sup>***</sup> (4.185)	0.332 <sup>***</sup> (73.77)	0.9521
19	0.377 <sup>***</sup> (15.32)	-0.052 <sup>***</sup> (-5.023)	-0.092 <sup>***</sup> (-7.815)	0.337 <sup>***</sup> (8.158)				0.326 <sup>***</sup> (76.48)	0.9581
20	0.398 <sup>***</sup> (15.41)		-0.109 <sup>***</sup> (-9.019)	0.271 <sup>***</sup> (6.656)	-0.00052 (-0.3623)			0.328 (62.75)	0.9555
21	0.408 <sup>***</sup> (16.56)		-0.101 <sup>***</sup> (-8.687)	0.268 <sup>***</sup> (6.778)		-0.0179 <sup>***</sup> (-4.4601)		0.319 <sup>***</sup> (66.71)	0.9588
22	0.378 <sup>***</sup> (15.01)		-0.112 <sup>***</sup> (-9.663)	0.257 <sup>***</sup> (6.413)			0.029 <sup>***</sup> (3.805)	0.327 <sup>***</sup> (75.45)	0.9574
22	0.389 <sup>***</sup> (15.88)	-0.042 <sup>***</sup> (-4.021)	-0.089 <sup>***</sup> (-7.654)	0.323 <sup>***</sup> (7.882)		-0.0135 <sup>***</sup> (-3.3145)		0.319 <sup>***</sup> (68.34)	0.9583
23	0.384 <sup>***</sup> (15.89)		-0.067 <sup>***</sup> (-5.157)	0.267 <sup>***</sup> (7.027)	0.0114 <sup>***</sup> (5.283)	-0.0434 <sup>***</sup> (-6.9879)		0.328 <sup>***</sup> (67.25)	0.9613
24	0.333 <sup>***</sup> (13.99)	-0.062 <sup>***</sup> (-6.183)	-0.048 <sup>***</sup> (-3.749)	0.333 <sup>***</sup> (8.830)	0.0135 <sup>***</sup> (6.526)	-0.3941 <sup>***</sup> (-6.7179)	0.028 <sup>***</sup> (4.012)	0.329 <sup>***</sup> (71.99)	0.9662

Notes: the sample is from 38 double-listed companies in Shanghai securities market, the period is from January 1997 to December 2003; 4536 groups of data in total

\*\*\*-Significance at the 1% level; \*\*-Significance at the 5% level; \*-Significance at the 10% level

Table 5 presents the results of the panel regressions for EQ. (1) above. The seven different specifications are reported with coefficient estimates and associates heteroscedasticity-consistent  $t$ -statistics, adjusted  $R^2$ . We investigate different combinations of the explanatory variables in model (8)-(24). Model (7) confirms that the single variable  $D_{it}$  has more significant influence on the B-share discounts with a coefficient of 0.346( $t$ -statistics of 57.69). The adjusted  $R^2$  is 0.9115. In all different combinations of the explanatory variables, in model (21) the combinations of  $D_{it}$ ,  $Rab_{it}$ ,  $nft_{it}$  and  $Changeba_{it}$  have the most convincing explanation for the discounts with coefficients of 0.319( $t$ -statistics of 66.71), -0.101( $t$ -statistics of -8.687), 0.268( $t$ -statistics of 6.778) and -0.0179( $t$ -statistics of -4.4601) respectively. The adjusted  $R^2$  increases to 0.9588. Although model (23) and (24) have higher adjusted  $R^2$ , the coefficients of  $Tradeba_{it}$  in the two models are positive, which are contradicted with the economic phenomena. Consequently, we choose model (21) as the best function to explain the B-share discount. From model (21), we can find that the coefficient of the dummy variable  $D_{it}$  is 0.319, which is significant; this means that after the B-shares was opened to domestic investors, the average of the B-share discount dropped by 0.319(the rate of B-share discount dropped by 41.6%). The dummy variable  $D_{it}$  describes the impact of the opening of B-shares on the discounts. Furthermore, the opening event reflects the lifting of the restriction on capital

and investment. In other words, it is the lifting of the restriction on capital and investment that induces the significant decline in the B-share price discounts. So, we believe that the restriction on capital and investment is one of the major factors influencing the B-share discounts. Additionally, the coefficient of  $Rab_{it}$ , which represents the difference in demand, is -0.101. This shows that the larger  $Rab_{it}$  is, that is, the higher the ratio of tradable A-shares to tradable B-shares is, the lower B-share discount is. This is similar to the conclusion of Chan and Kwok 1999. The coefficients of  $nft_{it}$  and  $Changeba_{it}$ , which represent the difference of behavioral factor and relative liquidity respectively, are 0.268 and -0.0179. This indicates that for stock  $i$ , the ratio of non-tradable shares to total shares is negatively related to the foreign investors' recognition; and the ratio of the turnover of B-share is positively related to that of A-share for stock  $i$ . These agree with the conclusion of Jose A Scheinkman and Wei (2004). In a word, the variables of  $Rab_{it}$ ,  $nft_{it}$ ,  $Changeba_{it}$  and the dummy variable  $D_{it}$  are considered as the four major factors leading to B-share discounts. So, the function of B-share discounts is defined as follows:

$$Dis_{it} = 0.408 - 0.101Rab_{it} + 0.268nft_{it} - 0.0179Changeba_{it} + 0.319D_{it} + \varepsilon_{it}$$

$$\bar{R}^2 = 0.9588, AIC = -3.733914, DW = 1.82658, \zeta_1(4) = 1.78(0.65), \zeta_2(8) = 3.64(0.88),$$

$$ARCH(1) = 0.043(0.83), ARCH(2) = 1.63(0.54), JB = 6.85(0.69), RESET(2) = 3.89(0.16)$$

This model can be tested by Breusch-Godfrey Serial Correlation LM Test, ARCH LM Test, Ramsey Reset test, Cusum test and Chow test, and all of them show that the model is stable and suitable.

## Conclusions

In this paper, in light of Fama & French's method of dynamic portfolio, we categorize all the listed companies that issued both A-shares and B-shares in Shanghai securities market according to factor  $F$ . And based on some hypotheses and theories proposed by foreign scholars, with an extensive social investigation, factor analysis and various panel data models, we reveal that the capital and investment restrictions, the supply factor, the relative liquidity and the behavioral factor are the main reasons for the B-share price discounts in China. In this paper, the method of dynamic portfolio is firstly used to analyze the stock discount or premium phenomena in this field.

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# The Impact of Interest Rates on Tax Incentive Policy and Inducement of Foreign Investment

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## Abstract

Many countries often provide tax incentives (the reduction of the corporate tax rate or a tax exemption) to induce foreign corporate investments. Such a tax incentive policy improves both the profit and risk aspects of foreign investments. Kim et al derived a mathematical model [9] for the variance of a project's NPV. The model can be used to evaluate the impact not only of different levels of tax incentives but also of cash flow components (such as depreciation) on a project's profit and risk. The objective of this paper is to conduct a sensitivity analysis to examine the effectiveness of tax incentive policy under different interest rate levels. The main finding of the analysis is that a tax incentive (a lowering of the tax rate) policy is more sensitive (effective) under high interest rates than low interest rates.

## Introduction

Many foreign countries use tax incentives (lowering tax rates or tax exemption) to induce foreign corporate investments. Such a tax incentive policy affects both the profit and risk aspects of foreign investments of multinational firms. Kim et al [9] derived a mathematical model for the variance of a project's NPV ( $\text{Var}(\text{NPV})$ ). The model can be used to evaluate the effectiveness (sensitivity) of a tax incentive policy on the profit and risk aspects of investment projects.

Using the model, Kim et al [7] showed that:

1. At a very low corporate tax rate, the probability that a project's NPV is profitable ( $P(\text{NPV}>0)$ ) is not very sensitive to an additional tax incentive (additional tax reduction). Therefore, countries with low corporate tax rates such as Hong Kong where the corporate tax rate is 15%, an additional tax incentive (additional tax reduction) to multinational firms does not provide any meaningful incentive to induce foreign investments.
2. However, when corporate tax rates are high, the probability that  $P(\text{NPV}>0)$  is very sensitive to changes in the corporate tax rate. This implies that countries such as the U.S.A. which impose relatively high corporate tax rates can significantly deteriorate the profit prospect of foreign investments of multinational firms if they raise tax rates even by a very small amount. It also implies that when corporate tax rates are high, tax incentives (lowering tax rates to multinational firm) can be a very effective policy in inducing foreign investment.

The interest rate which is used for the NPV is one of the most important variables which affect the profit and risk aspects of investment projects. Consequently, the result derived by Kim et al can be affected depending on the level of interest rates. If interest rates affect the result derived, it will be useful information not only for the multinational firms evaluating the benefits of a tax incentive policy but also for governments designing an effective tax incentive policy to induce foreign investment. The objective of this paper is to examine how the level of interest rates can affect the effectiveness of a tax incentive policy.

The next section briefly reviews the mathematical model which was derived by Kim et al [9]. Section III covers the sensitivity analysis showing how changes in interest rates can affect the effectiveness of a tax incentive policy on the profit and risk aspects of a typical investment project. Section IV contains the conclusion.

## Review of the Model

When assessing an investment project based on the NPV method, the profit and risk aspects are combined. For example, the expected NPV (the profit aspect) is adjusted using a risk-adjusted discount rate which can be derived using the capital asset pricing model (CAPM). Since the  $E(\text{NPV})$  so computed does not provide any information

about the risk aspect of the project such as the probability that the project is profitable ( $E(NPV) \geq 0$ )), it is possible to accept a highly risky project without a proper evaluation of its risk aspect. However, if the first two moments  $E(NPV)$  and  $Var(NPV)$  of the NPV are available, a complete probability distribution of all possible NPVs can be derived. It should be noted that once the first two moments are known, even when the underlying probability distribution of the NPVs is unknown, the probability distribution still can be derived using Tchebycheff's inequality. Kim et al.[9] derived  $E(NPV)$  and  $Var(NPV)$  as follows:

Under the NPV method, the expected NPV is found such that

$$E(NPV) = \sum_{t=1}^n \frac{E(C_t)}{(1+r_f)^t} - C_0 \quad (1)$$

where  $E(C_t)$  = the expected periodic cash flow at period  $t$ ,  $C_0$  = the initial investment,  $r_f$  = the risk-free discount rate,  $n$  = the project's useful life. To make a separate assessment of both the profit and risk aspects of investment projects, the expected cash flows need to be discounted by the risk-free interest rate rather than by a risk-adjusted discount rate because the main concern is to find the expected NPV without considering the risk aspect.

As shown by Hillier [5], the variance of the NPV can be written as

$$Var(NPV) = \sum_{p=1}^n \sum_{q=1}^n \frac{1}{(1+r_f)^{p+q}} r_{pq} \sigma_p \sigma_q \quad (2)$$

where  $r_{pq}$  = the inter-temporal correlation coefficient between cash flows of  $p^{th}$  and  $q^{th}$  periods,  $n$  = the project's useful life, and  $\sigma_p$  ( $\sigma_q$ ) = the standard deviation of the periodic cash flow for period  $p$  ( $q$ ). The inter-temporal correlation coefficients,  $r_{pq}$ , are considered the most difficult parameters to be estimated especially in the case of lengthy multi-period investment projects due to the large number of  $r_{pq}$  that must be estimated.

Numerous papers [1][2][3][4][5][10][11] have been published regarding the estimation of the inter-temporal correlation coefficients. All these methods, however, have difficulties because the assumptions are not realistic or the information required is not easily available.

According to equation (2),  $Var(NPV)$  is a function of the four variables:  $n$ ,  $r_f$ ,  $\sigma_p$ , and  $r_{pq}$ . Since  $\sigma_p$  and  $r_{pq}$  are affected by cash flow components, it is necessary to derive models for  $\sigma_p$  and  $r_{pq}$  based on cash flow components. Kim et al [9] showed how to derive the estimation model based on cash flow components.

The periodic cash flows ( $C_t$ ) which are composed of cash flow components can be expressed as:

$$C_t = A_t \left( \sum_{i=1}^k C_{ti} - \sum_{i=k+1}^m C_{ti} \right) + D_t T_t \quad \text{for } t=0,1,..n \quad (3)$$

where the subscript  $t$  represents  $t^{th}$  period,  $A_t = (1 - T_t)$  = the corporate after-tax earnings rate,  $C_{ti} = i^{th}$  component cash flow which represents cash inflow when  $i \leq k$  and cash outflow when  $i > k$ ,  $m$  = total number of component cash flows,  $k$  = total number of component cash inflows, and  $D_t =$  depreciation. The component cash flows ( $C_{ti}$ ) include items such as sales revenue, any cash savings, service revenue, royalties, material cost, wages, advertising cost, and so forth.

Then, it can be shown that

$$E(C_t) = A_t \left[ \left( \sum_{i=1}^k E(C_{ti}) - \sum_{i=k+1}^m E(C_{ti}) \right) \right] + D_t T_t \quad \text{for } t= 1,..n \quad (4)$$

$$Var(C_t) = A_t^2 \left( \sum_{i=1}^m \sigma_{ti}^2 + 2 \sum_{i=1}^k \sum_{j=i+1}^k \tau_{ij} \sigma_{ti} \sigma_{tj} - 2 \sum_{i=1}^k \sum_{j=k+1}^m \tau_{ij} \sigma_{ti} \sigma_{tj} + 2 \sum_{i=k+1}^m \sum_{j=i+1}^m \tau_{ij} \sigma_{ti} \sigma_{tj} \right) \quad \text{for } t= 1,..n \quad (5)$$

where  $E(C_{ti})$  = the expected  $i^{th}$  component cash flow of the  $t^{th}$  period,  $\tau_{ij}$  = the correlation coefficient between the  $i^{th}$  and the  $j^{th}$  component cash flows,  $\sigma_{ti}$  ( $\sigma_{tj}$ ) = the standard deviation of the  $i^{th}$  ( $j^{th}$ ) component cash flow for period  $t$ , and all other notations are the same as defined before.

Kim et al derived the inter-temporal correlation coefficient between  $p$ th and  $q$ th periods as follows:

$$r_{pq} = \frac{1}{\sigma_p \sigma_q} \{ A_p A_q [ \sum_{i=1}^m \sum_{j=1}^m E_{ij} - 2 \sum_{i=1}^k \sum_{j=k+1}^m (E_{ij} + E_{ji}) ] + A_p D_q T_q [ \sum_{i=1}^k E(C_{pi}) - \sum_{i=k+1}^m E(C_{pi}) ] + E(C_q) [ D_p T_p - E(C_p) ] \} \quad (6)$$

where  $E_{ij} = \tau_{piqj} \sigma_{pi} \sigma_{qj} + E(C_{pi}) E(C_{qj})$ ,  $\tau_{piqj}$  = the inter-temporal correlation coefficient between  $i^{\text{th}}$  cash flow component of  $p^{\text{th}}$  period and  $j^{\text{th}}$  cash flow component of  $q^{\text{th}}$  period, and all other notations are the same as defined before with the exception that the subscripts  $p$  and  $q$  are used for periods  $p$  and  $q$ .

According to equations (5) and (6), the variance of the cash flows and the inter-temporal correlation coefficients are a function of six of the following variables:  $A_t$ ,  $D_t$ ,  $E(C_{ti})$ ,  $\sigma_{ti}$ ,  $r_{ij}$ , and  $\tau_{piqj}$ .

The first three variables are the information required to estimate the expected periodic cash flows which are essential for the  $E(\text{NPV})$ . Without these variables, project evaluation itself is not possible. Regarding the fourth and fifth variables ( $\sigma_{ti}$ ,  $r_{ij}$ ), Hillier [5,6] showed estimation methods by extending the PERT (Program Evaluation and Review Technique) which was originally developed by Malcolm et al. [12]. Also, Kim and Elsaid [8] extended Hillier's estimation method. Since Hillier [5,6] and Kim and Elsaid [8] already showed how these two variables can be derived, the only additional variables which need to be estimated are  $\tau_{piqj}$ .

Depending on the project, the total number of  $\tau_{piqj}$  can be significant. However, it should be noted that the two variables,  $\tau_{ij}$  and  $\tau_{piqj}$  are closely related. The former represents correlation coefficients between two cash flow components and the latter represents the inter-temporal correlation coefficient between two cash flow components of two different periods.

The correlation coefficients which represent the relationship between two cash flow components are expected to remain relatively the same during the project life. On the other hand, the inter-temporal correlation coefficients,  $\tau_{piqj}$ , decay away as the time lag (the difference between  $p$  and  $q$ ) increases. For example, consider the impact of an advertisement in a certain period on sales of later periods.

Therefore, a practically feasible approach is to estimate  $\tau_{piqj}$  based on a constant annual decay rate, just as a constant annual dividend growth rate is assumed for the valuation of common stock. It is practically impossible to estimate all possible future dividends without making a certain assumption regarding the dividend growth rate. Just as the constant dividend growth model is modified depending on the nature of the growth rate of different stocks, the estimation model based on a constant decay rate can also be adjusted depending on the nature of the decay rate of different projects.

Let  $\delta$  = the constant annual decay rate for the  $\tau_{ij}$ . Then, one possible way at which the inter-temporal correlation coefficient between two components of two different periods can decay away is:

$$\tau_{piqj} = \delta^{q-p} \tau_{ij} \quad (7)$$

where  $q \geq p$ .

The decay rate which can range  $0 \leq \delta \leq 1$  may not be constant and is impossible to be accurately estimated. However, it should be noted that equation (6) makes it possible to perform sensitivity analysis to observe the impact of a possible range of the decay rate on the  $r_{pq}$ ,  $\text{Var}(\text{NPV})$ , and the probability distribution of the project's NPV.

Since the main concern of this paper is to examine the impact of changes in level of interest rates on tax incentive policy, it will be assumed that the first five variables and a reasonable decay rate are provided.

## Numerical Example

A typical investment project which provides positive expected NPVs under a wide range of discount rates was prepared to examine the effectiveness of tax incentive policy under different level of interest rates. Suppose that a multi-national firm (Associated Automobile Company (AAC)) is planning to produce a new energy saving auto part containing computer chips which was developed by the company. The device can be installed in new as well as in used cars. To produce this device, equipment worth \$3.5 million will be needed. Technological advances will limit the project's life to ten years. The equipment will be depreciated on a straight-line basis over the ten year life of the project.

Suppose that AAC's management has made three estimates (optimistic, most likely, and pessimistic estimates) for each cash-flow component for the next ten years, as shown in Table 1.

TABLE 1: OPTIMISTIC, MOST LIKELY, AND PESSIMISTIC ESTIMATES OF CASH FLOW COMPONENTS (000'S)

	Year ⇒	1	2	3	4	5	6	7	8	9	10
X <sub>1</sub>	Optimistic	5,000	7,000	5,000	7,000	5,000	7,000	5,000	7,000	5,000	7,000
	Most likely	4,165	5,831	4,165	5,831	4,165	5,831	4,165	5,831	4,165	5,831
	Pessimistic	2,533	2,786	2,533	2,786	2,533	2,786	2,533	2,786	2,533	2,786
X <sub>2</sub>	Optimistic	1,000	3,000	5,000	7,500	10,000	10,000	7,500	7,500	5,000	2,500
	Most likely	835	2,499	4,165	6,248	8,330	8,330	6,248	6,248	4,165	2,083
	Pessimistic	507	507	760	1,013	1,267	1,267	1,013	507	507	253
X <sub>3</sub>	Optimistic	120	200	200	400	450	400	290	290	200	100
	Most likely	100	167	250	333	375	333	242	242	167	83
	Pessimistic	61	66	76	91	96	91	76	61	41	20
X <sub>4</sub>	Optimistic	1,075	1,582	2,370	3,025	3,088	2,420	1,659	1,659	1,130	538
	Most likely	895	1,318	1,974	2,572	2,572	2,016	1,382	1,382	942	448
	Pessimistic	545	599	654	762	763	708	599	545	327	164
X <sub>5</sub>	Optimistic	215	678	1,185	1,815	2,470	2,420	1,778	1,778	1,130	537
	Most likely	180	565	987	1,543	2,058	2,016	1,481	1,481	941	448
	Pessimistic	109	109	163	218	272	272	218	109	109	54
X <sub>6</sub>	Optimistic	2,150	3,080	4,500	5,625	5,750	4,500	3,150	3,150	2,200	1,075
	Most likely	1,791	2,566	3,749	4,686	4,790	3,749	2,624	2,624	1,833	896
	Pessimistic	1,089	1,198	1,307	1,524	1,525	1,416	1,198	1,098	654	327
X <sub>7</sub>	Optimistic	430	1,320	2,250	3,375	4,600	4,500	3,375	3,375	2,200	1,075
	Most likely	359	1,100	1,874	2,811	3,832	3,748	2,812	2,812	1,832	895
	Pessimistic	218	218	327	436	545	545	436	218	218	109
X <sub>8</sub>	Optimistic	288	480	500	500	500	480	500	500	240	120
	Most likely	240	400	450	500	450	400	500	500	200	100
	Pessimistic	146	158	137	164	116	109	182	146	80	80
X <sub>9</sub>	Optimistic	410	613	868	1,122	1,249	1,122	842	842	613	359
	Most likely	350	513	717	921	1,023	921	697	697	513	309
	Pessimistic	185	192	205	225	232	225	205	185	158	132
X <sub>10</sub>	Optimistic	780	1,000	1,275	1,550	1,688	1,550	1,247	1,247	1,000	725
	Most likely	750	950	1,200	1,450	1,575	1,450	1,175	1,175	950	700
	Pessimistic	530	537	550	570	577	570	550	530	503	477

Key: optimistic (most likely, pessimistic) = optimistic (most likely, pessimistic) estimate, X<sub>1</sub> = new car market sales, sales, X<sub>2</sub> = used car market sales, X<sub>3</sub> = royalties, X<sub>4</sub> = labor costs of X<sub>1</sub>, X<sub>5</sub> = labor cost of X<sub>2</sub>, X<sub>6</sub> = material cost of X<sub>1</sub>, X<sub>7</sub> = material cost of X<sub>2</sub>, X<sub>8</sub> = advertising and sales promotion, X<sub>9</sub> = other selling and delivery expenses, and X<sub>10</sub> = general and administrative expenses.

There are three cash inflow and six cash outflow components: X<sub>1</sub> ( new car market sales), X<sub>2</sub> ( used car market sales ), X<sub>3</sub> ( royalties from licensing agreements with foreign car manufacturers), X<sub>4</sub> (labor cost of X<sub>1</sub>), X<sub>5</sub> (labor cost of X<sub>2</sub>), X<sub>6</sub> (material cost of X<sub>1</sub>), X<sub>7</sub> (material cost of X<sub>2</sub>), X<sub>8</sub> (advertising and sales promotion), X<sub>9</sub> (other selling and delivery expenses), and X<sub>10</sub> (general and administrative expenses).

Given the estimates of the cash flow components, the project's  $E(C_t)$ ,  $\text{Var}(C_t)$  and  $r_{pq}$  can be measured as follows:

- a. For the estimation of expected values and standard deviations for the random cash flow components (X<sub>1</sub> - X<sub>10</sub>), the method suggested by Wagle [13] and Hillier [6], can be used. According to the method, the two parameters can be estimated as follows:

$$E(X) = \frac{1}{6} [X_{\text{pes}} + 4X_{\text{most}} + X_{\text{opt}}] \quad (8)$$

$$\text{Var}(X) = \left[ \frac{1}{6} (X_{\text{opt}} - X_{\text{pes}}) \right]^2 \quad (9)$$

where  $X_{\text{pes}}$  = pessimistic estimate,  $X_{\text{most}}$  = most likely estimate, and  $X_{\text{opt}}$  = optimistic estimate. The expected values and standard deviations of cash flow components which are shown in Table 2 were computed using the three estimates in Table 1 and equations (8) and (9).

TABLE 2: EXPECTED VALUES AND STANDARD DEVIATIONS OF CASH FLOW COMPONENT (000's)

Period Variable	1	2	3	4	5	6	7	8	9	10
$E(X_1)$	4,032	5,518	7,727	9,616	9,616	7,769	5,518	5,476	3,863	1,932
$\sigma_1$	411	702	1,160	1,492	1,492	1,118	702	745	580	290
$E(X_2)$	808	2,251	3,737	5,584	7,431	7,431	5,584	5,500	3,695	1,848
$\sigma_2$	82	416	707	1,081	1,456	1,456	1,081	1,166	749	375
$E(X_3)$	97	156	213	304	341	304	222	220	152	75
$\sigma_3$	10	22	21	52	59	52	36	38	27	13
$E(X_4)$	867	1,242	1,820	2,346	2,357	1,865	1,298	1,289	871	416
$\sigma_4$	88	164	286	377	388	285	177	186	134	62
$E(X_5)$	174	508	883	1,368	1,829	1,793	1,320	1,302	834	397
$\sigma_5$	18	95	170	266	366	358	260	278	170	81
$E(X_6)$	1,734	2,424	3,467	4,316	4,406	3,485	2,474	2,457	1,698	831
$\sigma_6$	177	314	532	684	704	514	325	342	258	125
$E(X_7)$	347	990	1,679	2,509	3,412	3,340	2,510	2,474	1,624	794
$\sigma_7$	35	184	321	490	676	659	490	526	330	161
$E(X_8)$	232	373	406	444	403	365	447	441	187	100
$\sigma_8$	24	54	61	56	64	62	53	59	27	7
$E(X_9)$	333	476	657	839	929	839	639	636	471	288
$\sigma_9$	38	70	111	150	170	150	106	110	76	38
$E(X_{10})$	718	890	1,104	1,320	1,428	1,320	1,083	1,080	884	667
$\sigma_{10}$	42	77	121	163	185	163	116	120	83	41

Key:  $E(X_i)$  = expected value of the  $i$ th cash flow component,  $X_1$  = new car market sales,  $X_2$  = used car market sales,  $X_3$  = royalties,  $X_4$  = labor,  $X_5$  = labor cost of  $X_1$ ,  $X_6$  = material cost of  $X_1$ ,  $X_7$  = material cost of  $X_2$ ,  $X_8$  = advertising and sales promotion,  $X_9$  = other selling and delivery expenses, and  $X_{10}$  = general and administrative expenses

- b. The original PERT method proposed by Malcolm et al. [12] does not provide any estimation procedure for the correlation coefficients ( $\tau_{ij}$ ). Hillier [5,6] and Kim and Elsaid [8] showed how to derive the correlation coefficients between an investment project's cash flow components for the PERT technique based on the regression slope parameter. Therefore, rather than repeating the lengthy estimation method proposed by Kim and Elsaid [8], this paper assumes that  $\tau_{ij}$  are already estimated. Table 3 depicts the assigned  $\tau_{ij}$ .

TABLE 3: CORRELATION COEFFICIENT MATRIX FOR COMPONENT CASH FLOW

	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>	X <sub>10</sub>
X <sub>1</sub>	1.00									
X <sub>2</sub>	.60	1.00								
X <sub>3</sub>	.40	.30	1.00							
X <sub>4</sub>	.94	.20	.10	1.00						
X <sub>5</sub>	.20	.94	.10	.20	1.00					
X <sub>6</sub>	.98	.30	.20	.95	.10	1.00				
X <sub>7</sub>	.30	.98	.20	.10	.95	.20	1.00			
X <sub>8</sub>	.50	.70	.30	.20	.30	.20	.30	1.00		
X <sub>9</sub>	.40	.50	.05	.10	.12	.10	.12	.05	1.00	
X <sub>10</sub>	.20	.20	.10	.10	.10	.10	.10	.05	.05	1.00

Key: X<sub>1</sub> = new car market sales, X<sub>2</sub> = used car market sales, X<sub>3</sub> = royalties, X<sub>4</sub> = labor costs of X<sub>1</sub>, X<sub>5</sub> = labor cost of X<sub>2</sub>, X<sub>6</sub> = material cost of X<sub>1</sub>, X<sub>7</sub> = material cost of X<sub>2</sub>, X<sub>8</sub> = advertising and sales promotion, X<sub>9</sub> = other selling and delivery expenses, and X<sub>10</sub> = general and administrative expenses.

- c. The expected values (E(C<sub>t</sub>)) and variances (Var(C<sub>t</sub>)) of each periodic cash flow were computed using the data in Tables 2 and 3, equation(4) and (5), and eleven different tax rates (0 to 50% in 5% increments). Table 4 shows the computed values of the expected values and standard deviations of each periodic cash flows under different tax rates.

TABLE 4: PEORIODIC EXPECTED CASH FLOWS AND STANDARD DEVIATIONS UNDER DIFFERENT TAX RATES (000'S)

tax rate	Period	1	2	3	4	5	6	7	8	9	10
0%	E(C <sub>t</sub> )	532	1,023	1,660	2,364	2,626	2,498	1,554	1,518	1,142	362
	σ <sub>t</sub>	169	415	693	1,003	1,128	991	669	721	542	287
5%	E(C <sub>t</sub> )	523	989	1,595	2,263	2,512	2,390	1,494	1,460	1,102	362
	σ <sub>t</sub>	161	394	659	953	1,071	941	635	685	514	273
10%	E(C <sub>t</sub> )	514	955	1,529	2,162	2,398	2,283	1,434	1,401	1,063	361
	σ <sub>t</sub>	152	373	624	903	1,015	892	602	649	487	258
15%	E(C <sub>t</sub> )	505	922	1,464	2,062	2,285	2,176	1,374	1,343	1,023	360
	σ <sub>t</sub>	144	352	589	853	958	842	568	613	460	244
20%	E(C <sub>t</sub> )	495	888	1,398	1,961	2,171	2,068	1,313	1,285	983	360
	σ <sub>t</sub>	135	332	555	803	902	793	535	577	433	230
25%	E(C <sub>t</sub> )	486	854	1,333	1,860	2,057	1,961	1,253	1,226	944	359
	σ <sub>t</sub>	127	311	520	752	846	743	501	541	406	215
30%	E(C <sub>t</sub> )	477	821	1,267	1,760	1,943	1,853	1,193	1,168	904	359
	σ <sub>t</sub>	118	290	485	702	789	694	468	505	379	201
35%	E(C <sub>t</sub> )	468	787	1,202	1,659	1,829	1,746	1,133	1,109	865	358
	σ <sub>t</sub>	110	270	451	652	733	644	435	469	352	187
40%	E(C <sub>t</sub> )	459	754	1,136	1,558	1,716	1,639	1,073	1,051	825	357
	σ <sub>t</sub>	102	249	416	602	677	595	401	433	325	172
45%	E(C <sub>t</sub> )	450	720	1,071	1,458	1,602	1,531	1,012	992	785	357
	σ <sub>t</sub>	93	228	381	552	620	545	368	397	298	158
50%	E(C <sub>t</sub> )	441	686	1,005	1,357	1,488	1,424	952	934	746	356
	σ <sub>t</sub>	85	207	347	502	564	495	334	361	271	143

- d. The inter-temporal correlation coefficients,  $r_{pq}$ s were computed using equation (6), the first two moments of the cash flow components (the data in Table 2), and the different tax rates. For the computations, a decay rate of .6 was used for  $\tau_{piqj}$  such that:  $\tau_{piqj} = (0.6)^{q-p}\tau_{ij}$  where  $q > p$ . It should be noted that different tax rates do not affect the inter-temporal correlation coefficients. Table 5 shows the computed periodic inter-temporal correlation coefficients.

TABLE 5: PERIODIC INTER-TEMPORAL CORRELATION COEFFICIENT MATRIX WHEN THE DECAY RATE = .60

Period	1	2	3	4	5	6	7	8	9	10
1	1.00									
2	.63	1.00								
3	.37	.60	1.00							
4	.23	.36	.60	1.00						
5	.14	.22	.36	.60	1.00					
6	.09	.13	.22	.37	.60	1.00				
7	.06	.08	.14	.23	.37	.60	1.00			
8	.03	.05	.08	.16	.22	.36	.59	1.00		
9	.02	.03	.05	.08	.13	.22	.36	.59	1.00	
10	.01	.02	.03	.05	.08	.13	.22	.36	.60	1.00

Tables 6, 7, and 8 show  $E(NPV)$ s,  $\sigma_{NPV}$ s, and  $P(NPV > 0)$  under 18 different interest rates (0 to 17%). For the computation of the  $E(NPV)$  and  $\sigma_{NPV}$ , equations (1) and (2) were used respectively. The  $P(NPV > 0)$ , the probability that the project can be profitable - was computed as follows:

When the distribution of the NPV is assumed to be approximately normal, the first two moments,  $E(NPV)$  and  $Var(NPV)$ , are necessary and sufficient information for the probability distribution of the NPV. The probability of any possible NPV such as  $P(NPV \geq X)$  can be evaluated, where  $X =$  any possible NPV of interest. If the probability distribution of the NPV is unknown, Tchebycheff's inequality can be used to evaluate the possible range of NPV such that

$$P[E(NPV) + h\sigma_{NPV} \leq NPV \leq E(NPV) - h\sigma_{NPV}] \leq \frac{1}{h^2} \quad (10)$$

for all  $h$  regardless of the probability distribution of the NPV, where  $h$  represents any real number. For the computation of the probability, Tchebycheff's inequality was used. Let  $h = E(NPV)/\sigma_{NPV}$  and assuming that the underlying probability distribution of the NPV is approximately symmetric with respect to the  $E(NPV)$ , it can be easily shown that:

$$P(NPV \geq 0) \geq 1 - \left(\frac{\sigma_{NPV}}{E(NPV)}\right)^2 (1/2) \quad (11)$$

As can be seen from tables (6) and (7), both the NPV and the  $\sigma_{NPV}$  decrease as either interest rates or tax rates increase. However, the decreases in the  $E(NPV)$ s and  $\sigma_{NPV}$ s are not in the same proportion.

TABLE 6 THE EXPECTED NPV UNDER DIFFERENT TAX RATES AND DISCOUNT RATES (000'S)

Tax Rate⇒ Disc Rate	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
1%	10,987	10,428	9,870	9,311	8,752	8,194	7,635	7,077	6,518	5,959	5,401
2%	10,250	9,720	9,189	8,659	8,129	7,598	7,068	6,538	6,008	5,477	4,947
3%	9,563	9,059	8,556	8,052	7,548	7,044	6,540	6,036	5,532	5,028	4,524
4%	8,923	8,444	7,964	7,485	7,006	6,527	6,048	5,568	5,089	4,610	4,131
5%	8,325	7,868	7,412	6,956	6,500	6,044	5,588	5,132	4,676	4,220	3,764
6%	7,765	7,331	6,896	6,462	6,027	5,593	5,159	4,724	4,290	3,855	3,421
7%	7,242	6,828	6,414	5,999	5,585	5,171	4,757	4,343	3,928	3,514	3,100
8%	6,752	6,356	5,961	5,566	5,171	4,776	4,381	3,986	3,590	3,195	2,800
9%	6,292	5,915	5,537	5,160	4,783	4,405	4,028	3,651	3,274	2,896	2,519
10%	5,860	5,500	5,139	4,779	4,418	4,058	3,697	3,337	2,977	2,616	2,256
11%	5,455	5,110	4,766	4,421	4,076	3,732	3,387	3,042	2,698	2,353	2,008
12%	5,074	4,744	4,414	4,084	3,755	3,425	3,095	2,765	2,435	2,106	1,776
13%	4,715	4,399	4,084	3,768	3,452	3,136	2,820	2,505	2,189	1,873	1,557
14%	4,377	4,075	3,772	3,470	3,167	2,864	2,562	2,259	1,957	1,654	1,351
15%	4,059	3,769	3,479	3,188	2,898	2,608	2,318	2,028	1,738	1,448	1,158
16%	3,758	3,480	3,202	2,923	2,645	2,367	2,088	1,810	1,532	1,253	975
17%	3,474	3,207	2,940	2,673	2,406	2,138	1,871	1,604	1,337	1,070	802

TABLE 7 THE STANDARD DEVIATIONS OF NPV UNDER DIFFERENT TAX RATES AND DISCOUNT RATES (000'S)

Tax Rate⇒ Disc Rate	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
1%	3,936	3,739	3,542	3,345	3,149	2,952	2,755	2,558	2,361	2,165	1,968
2%	3,732	3,545	3,359	3,172	2,985	2,799	2,612	2,426	2,239	2,053	1,866
3%	3,542	3,365	3,188	3,011	2,834	2,657	2,480	2,303	2,125	1,948	1,771
4%	3,366	3,198	3,029	2,861	2,693	2,525	2,356	2,188	2,020	1,851	1,683
5%	3,202	3,042	2,882	2,722	2,562	2,401	2,241	2,081	1,921	1,761	1,601
6%	3,049	2,896	2,744	2,591	2,439	2,287	2,134	1,982	1,829	1,677	1,524
7%	2,906	2,760	2,615	2,470	2,325	2,179	2,034	1,889	1,743	1,598	1,453
8%	2,772	2,633	2,495	2,356	2,218	2,079	1,940	1,802	1,663	1,525	1,386
9%	2,647	2,515	2,382	2,250	2,118	1,985	1,853	1,721	1,588	1,456	1,323
10%	2,530	2,403	2,277	2,150	2,024	1,897	1,771	1,644	1,518	1,391	1,265
11%	2,420	2,299	2,178	2,057	1,936	1,815	1,694	1,573	1,452	1,331	1,210
12%	2,317	2,201	2,085	1,969	1,853	1,738	1,622	1,506	1,390	1,274	1,158
13%	2,220	2,109	1,998	1,887	1,776	1,665	1,554	1,443	1,332	1,221	1,110
14%	2,128	2,022	1,916	1,809	1,703	1,596	1,490	1,384	1,277	1,171	1,064
15%	2,043	1,940	1,838	1,736	1,634	1,532	1,430	1,328	1,226	1,123	1,021
16%	1,962	1,864	1,765	1,667	1,569	1,471	1,373	1,275	1,177	1,079	981
17%	1,885	1,791	1,697	1,602	1,508	1,414	1,320	1,225	1,131	1,037	943

TABLE 8 THE P (NPV > 0) UNDER DIFFERENT TAX RATES AND DISCOUNT RATES (000'S)

Tax Rate→ Disc Rate	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
1%	93.58%	93.57%	93.56%	93.55%	93.53%	93.51%	93.49%	93.47%	93.44%	93.40%	93.36%
2%	93.37%	93.35%	93.32%	93.29%	93.26%	93.22%	93.17%	93.12%	93.05%	92.98%	92.89%
3%	93.14%	93.10%	93.06%	93.01%	92.95%	92.89%	92.81%	92.72%	92.62%	92.49%	92.34%
4%	92.88%	92.83%	92.77%	92.69%	92.61%	92.52%	92.41%	92.28%	92.13%	91.94%	91.70%
5%	92.60%	92.53%	92.44%	92.35%	92.24%	92.11%	91.96%	91.78%	91.56%	91.29%	90.95%
6%	92.29%	92.20%	92.09%	91.96%	91.81%	91.64%	91.44%	91.20%	90.91%	90.54%	90.07%
7%	91.95%	91.83%	91.69%	91.53%	91.34%	91.12%	90.86%	90.54%	90.15%	89.66%	89.02%
8%	91.57%	91.42%	91.24%	91.04%	90.80%	90.52%	90.19%	89.78%	89.27%	88.62%	87.75%
9%	91.15%	90.96%	90.75%	90.49%	90.20%	89.85%	89.42%	88.90%	88.23%	87.37%	86.20%
10%	90.68%	90.45%	90.19%	89.88%	89.51%	89.07%	88.53%	87.86%	87.00%	85.86%	84.28%
11%	90.16%	89.88%	89.56%	89.18%	88.72%	88.17%	87.49%	86.63%	85.52%	84.00%	81.85%
12%	89.58%	89.24%	88.85%	88.38%	87.82%	87.13%	86.27%	85.17%	83.71%	81.69%	78.72%
13%	88.92%	88.51%	88.03%	87.46%	86.77%	85.91%	84.83%	83.41%	81.49%	78.76%	74.60%
14%	88.18%	87.69%	87.11%	86.40%	85.55%	84.47%	83.09%	81.25%	78.70%	74.95%	69.00%
15%	87.34%	86.74%	86.04%	85.17%	84.11%	82.75%	80.98%	78.57%	75.14%	69.89%	61.09%
16%	86.38%	85.66%	84.80%	83.73%	82.40%	80.68%	78.38%	75.19%	70.47%	62.95%	49.40%
17%	85.28%	84.41%	83.35%	82.03%	80.35%	78.14%	75.13%	70.82%	64.20%	53.02%	31.01%

As a result, the impact of changes in tax and interest rates on the P(NPV > 0)s are different. To summarize the findings shown in Tables 6, 7, and 8, the following five figures were prepared.

Figures 1 and 2 show how under different tax rates the E(NPV),  $\sigma_{NPV}$ , and P(NPV > 0) decline when the interest rate (discount rate) is not unusually low or high. To represent this, a discount rate of 8% was used. Figures 3 to 5 show how the three variables (E(NPV),  $\sigma_{NPV}$ , and P(NPV > 0)) decline when the interest rate is unusually low or high. For the unusually low and high interest rates, 2% and 17% were used.

Figure 2 shows that when the interest rate is not unusually low or high, the P(NPV > 0), the probability that the project can be profitable, declines at a slowly increasing rate as the corporate tax rate rises. However, Figure 5 shows that when the interest rate is unusually low, the P(NPV > 0) is not very sensitive to changes in corporate tax rates. Figure 5 also shows that when the interest rate is unusually high, the decline of P(NPV > 0) accelerates as the corporate tax rate rises.

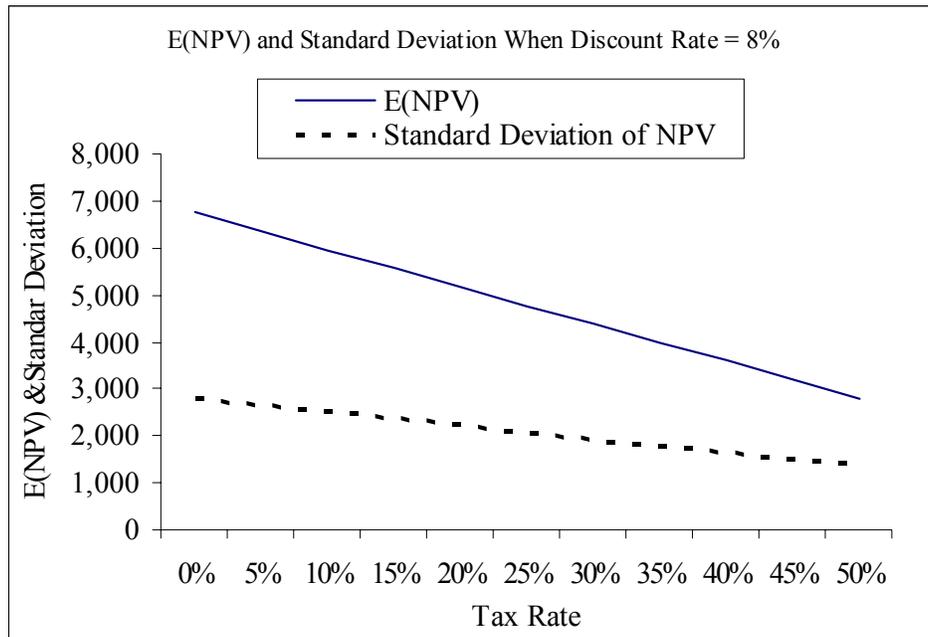


FIG. 1: THE  $E(NPV)$  AND  $\sigma_{NPV}$  UNDER DIFFERENT TAX RATES

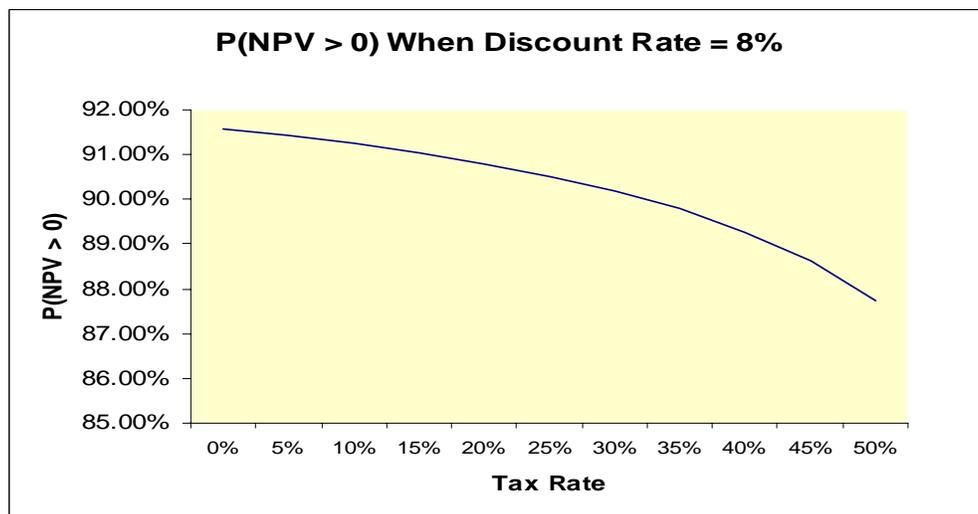


FIG. 2: THE  $P(NPV > 0)$  UNDER DIFFERENT TAX RATES

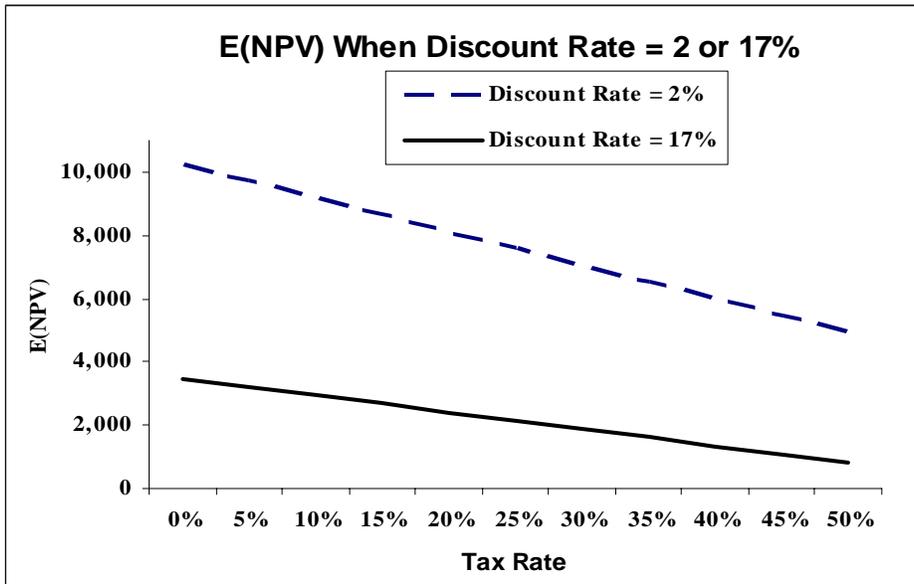


FIG. 3: THE E(NPV) UNDER DIFFERENT TAX RATES

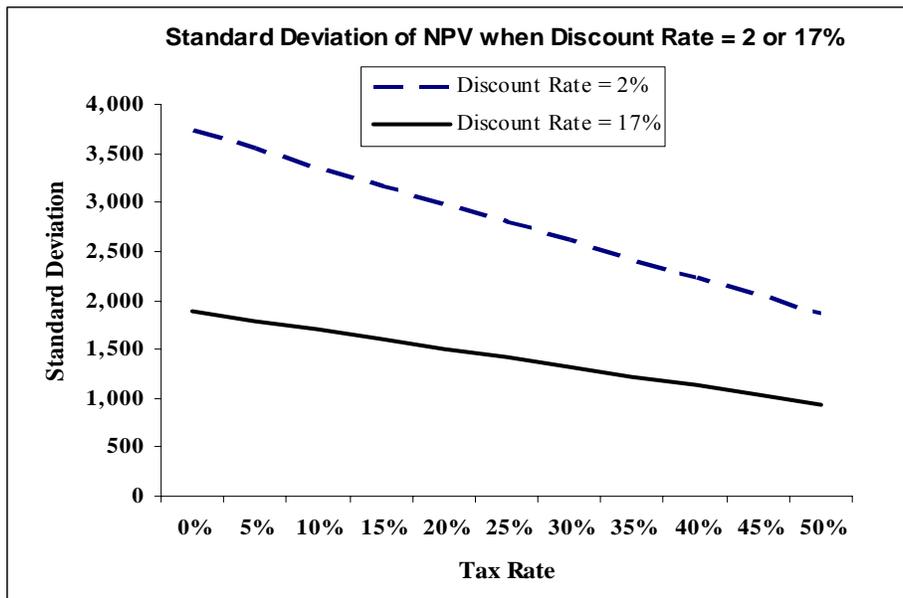


FIG. 4: STANDARD DEVIATION OF THE NPV

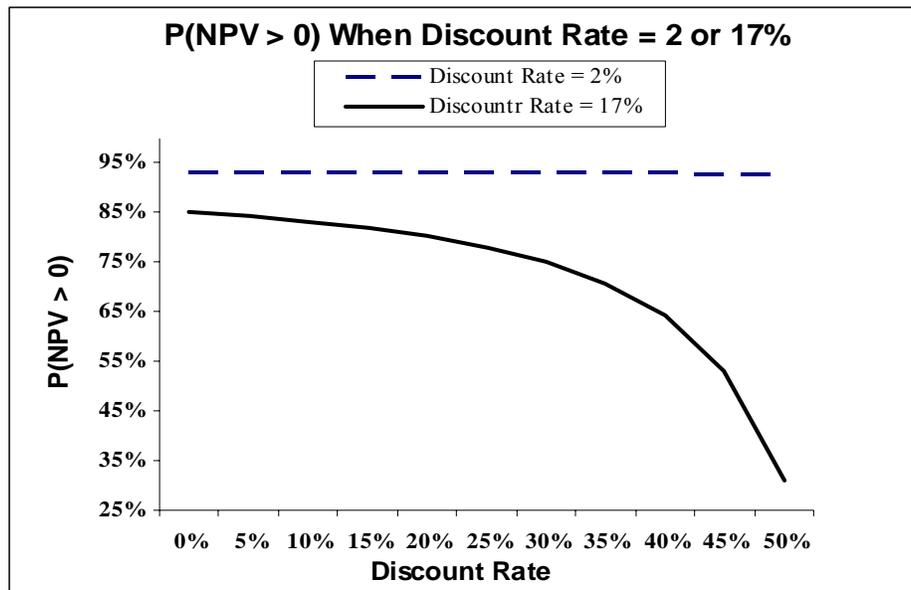


FIG. 5: THE P(NPV > 0) UNDER DIFFERENT TAX RATES

## Conclusion

The analysis has several important implications:

First, the expected profit (the net present value) alone is not enough information to make a sound investment decision. For example, even when the average tax rate is as high as 50%, the expected profit (NPV) from the project is \$943,000 when the interest rate is 17%. However, at the 50% tax rate, the P(NPV>0) is only 31.01%, implying that it is highly probable that the NPV can be less than zero. Traditionally, both profit and risk aspects are combined by using the risk-adjusted discount rate. The risk-adjusted NPV alone provides incomplete information, which can lead to the acceptance of highly risky projects. Consideration of both the profit and risk aspects is very important in evaluating risky investment projects.

Second, at very low tax rates, the P(NPV>0) is not so sensitive to changes in the tax rate under a wide range of interest rates, implying that when the corporate tax rate is very low, such as in Hong Kong where the corporate tax rate is 15%, additional reduction of the tax rate will not provide any meaningful incentive to induce foreign investment.

Third, in general, unless interest rates are unusually low, the P(NPV ≥ 0) is sensitive at higher tax rates. Therefore, for countries which impose a high corporate tax rate, tax reduction can provide a meaningful incentive to induce foreign investments.

Fourth, when interest rates are unusually low, the P(NPV > 0) is not very sensitive to changes in corporate tax rates, implying that a tax incentive policy (an additional tax reduction) cannot significantly improve the profit prospect. This also implies that under a very low interest rate, an additional tax reduction is not a good incentive policy because of the insignificant improvement of a project's profit and risk. On the other hand, when interest rates are unusually high, the P(NPV > 0) is very sensitive to changes in corporate tax rates, implying that a tax incentive policy is very effective. This also implies that under high interest and corporate tax rates, any additional increase in the corporate tax rate can significantly deteriorate corporate profit and risk.

The implications revealed by the analysis will be useful not only to U.S. companies making foreign investments but also to those foreign governments providing various investment tax incentives. Also, the research

results can provide useful information to U.S. federal and local governments, which often use various tax incentives to induce corporate investments.

Other cash flow components, especially those which can be controlled by government such as depreciation methods, can also affect the profit and risk aspects of investments. Therefore, it is possible that the results derived can be somewhat different depending on the size of the other variables. However, it should be noted that it is always possible to conduct a sensitivity analysis based on mathematical models of the first two moments. Furthermore, the sensitivity analysis is useful not only for the evaluation of the appropriateness of a change in a government investment incentive policy, but also for a company's accept/reject decision for a project.

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# Trade, Foreign Direct Investment and Regional Economic Development in the SAARC Region

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## Abstract

In the 1950s and 1960s, it was widely believed that developing countries could create industrial bases only by substituting domestic manufactured goods for imports. From the mid-1960s onward, it became increasingly apparent that there was another possible path to industrialization via. Exports of manufactured goods primarily do advanced nations after forming trade associations such as SAARC, ASEAN etc. Moreover, the countries developed in this manner-a group that the World Bank now refers to as the high performance Asian economies- achieved a spectacular growth, in some cases at more than 10 percent per year. This paper analyses the pros and cons of the forming trade unions among the SAARC nations and how this union could be made more effective to combat any major economic turmoil and exigencies. The implications of "East Asian Miracle" is being viewed differently and different observers place very different interpretations on the role of the government policies, including trade policy, in fostering economic growth. To some observers the success of Asian economies demonstrates the effectiveness of sophisticated government intervention and there are some economists who believe that trade, industrial policy and trade unions made little difference either way. This paper attempts to analyze the relative importance of forming trade unions on the macro-economic development of member nation vis-à-vis their respective industrial policies.

## Introduction

In order to face the adverse impact of the WTO regime, the likely outcome of the discriminatory adherence to prescribed rules by developed economies, the developing countries specially in SAARC region are going ahead with the objective of creating economic and trading alliances and collaborations for mutual prosperity and growth. The globalization and liberalization efforts of SAARC countries have opened up an increase scope for trade co-operation not only among the member nations but also with the rest of the world, particularly with Europe. Development co-operation between the EU and the countries of SAARC is a prerequisite for transitional economies like India and EU for their trade expansions. But the declining trend of intra-trade among SAARC countries and the rising one with the developed economies, it is understood as a matter of grave concern to understand the trade composition of SAARC countries with that of EU, keeping an eye on the issues and policies related to foreign direct investments adopted by SAARC countries. Hence, an attempt has been made in this paper to study the trade synchronization between two blocks in the framework of globalization. This paper analyses India's trade with SAARC as a trade block and with EU block. The process of economic integration in SAARC region gathered momentum with the implementation of the South Asian Preferential Trade Agreement (SAFTA) in 1995 under the brand framework of South Asian Association for Regional Cooperation (SAARC). SAFTA has, however come to be viewed as an interim platform in the move towards economic integration in South Asia. In 1996, South Asian Government committed themselves to the creation of South Asian Free Trade Area (SAFTA). Although it was decided at the ninth SAARC summit to establish SAFTA by 2002, this has proved too ambitious as a target.

Theory and evidence from regional integration arrangements suggest that measures that reduce trade costs among partner countries may provide an important stimulus not only to trade, but also to foreign direct investment (FDI). Specific regional integration initiatives can influence the level and pattern of FDI flows between member countries, as well as, between member countries and outsiders. The SAARC integration initiatives have taken place in the context of a significant liberalization process in all member countries. This paper explores to analyze the

related issues, documenting the nature and type of intra-SAARC investment flows and presents the result of some preliminary studies on the emerging trade and investment linkages within the SAARC region.

### **Foreign Trade as Catalysts for Economic Growth and Development:**

In addition to sustained growth of domestic consumption, robust growth of exports is a widely accepted factor favoring growth and development in less developed countries. Though export performance may be importantly influenced by international economic conditions, a country's own trade policies, particularly its policies towards imports, can also be crucial to its export performance. In a dynamic world, linkages among export growth, foreign direct investment, accumulation of productive resources and technical know-how and macroeconomic growth and development matter importantly. Exports can be substantially hindered (if not absolutely hobbled) by a country's own policies towards imports. Protection enforced through measures such as tariffs, quantitative restrictions, and non-border measures such as industrial or qualitative standards for goods and services applied mainly to imports restrict the ability of domestic producers to sell their goods abroad. Many research findings prove that protection is equivalent to a tax on exports. Thus, in order to sell goods and services abroad successfully, a country must allow its inhabitants to buy goods abroad freely, leaving adjustments in exchange rates and domestic relative prices to ensure balance of payments equilibrium mainly to market forces. "Open" economies benefit from not only traditional, static gains from trade but also "dynamic" gains from trade. In response to greater integration with the world economy under liberal trade policies, producers and consumers allocate resources more efficiently. Producers in particular tend to adopt technologies that are appropriate to not only domestic economic circumstances but also economic circumstances prevailing internationally. These tendencies help to ensure that the greatest potential output is attained from available domestic resources, maximizing a country's growth, economic development, and economic well being. Growth and economic development are of course, related to a number of dynamic factors, among the most important of which are growth in inputs of skilled and unskilled labor, physical capital and technology (including knowledge and managerial know-how) to production. Long-term growth of labor input is frequently considered given by nature, but may be importantly subject to economic policies impinging on employment and education, as well as population growth. Growth rates of physical capital and technology inputs are more often considered subject to changes in economic policies. Traditionally, domestic investment has been a particular focal point of economic theories.

Foreign equity participation in industrial and other commercial projects has come to be viewed as especially important if not crucial for the growth prospects of less developed countries in the modern global economy, frequently with reference to the experience of developing Asian countries, such as Hong Kong and Singapore, Malaysia and Thailand, and most recently China, that have benefited from large inflows of foreign direct investment. Today, foreign direct investment is widely viewed among the major forces propelling the "globalization" of the world economy -- that is, the increasing specialization of production and trade through global networks of production and distribution, pioneered and operated by multinational enterprises (WTO 1996). Moreover although advanced industrial countries dominate the global picture, developing countries accounted for one-third of the global stock of inward foreign direct investment in 1997, compared to just one-fifth of the global stock at the beginning of the decade. Indeed, notwithstanding the South East Asian financial crisis, FDI flows have steadily emerged during the 1990s, including in 1997, as a larger and more stable component of total foreign financing for developing countries than either official development assistance or foreign portfolio investment (UNCTAD 1998).

FDI stock levels as a share of GDP have historically been exceedingly low in South East Asian countries and remain the lowest of all developing country regions at 0.7 percent of GDP in 2002 (refer the box, below). This reflects both low-extra-regional as well intra-regional investment flows.

## FDI AS % OF GDP

Region	1990	2002
East Asia and Pacific	1.6	3.1
Europe and Central Asia	0.4	2.9
Latin America	0.7	2.7
Middle East & North Africa	0.6	0.9
South East Asia	0.1	0.7
Sub-Saharan Africa	--	2.5
Europe EMU	1.1	5

Source: World Development Report Indicators 2004, The World Bank

There is substantial scope of regional cooperation in areas such as building a world trading system responsive to region's development needs. The Cancun Ministerial Conference has demonstrated the importance of coordinated positions by developing countries in achieving their objectives. South East Asian countries have played a key role in evolving and strengthening the coalitions of developing countries. The failure of Cancun also provides an opportunity for the WTO membership to seek a redressal of the emerging asymmetries in the world trading system before they move forward. Drawing from the World Trade and Development Report 2003 by RIS, the report proposes an agenda for reform of the world trading system that developing countries in general and South East Asian countries in particular may take up in the interest of building a development-friendly world trading system. The main elements of this agenda include developments assessment of the multilateral trading system by an independent commission, reform of the decision-making process, broad based and more representative secretariat, setting up of a WTO watch dog of developing countries, strengthening the provision of technical assistance, emphasis on outstanding implementation issues rather than expansion of negotiating agenda, proactive framework agreements on special and differential treatment, movement of natural persons and on transfer of technologies.

In neoclassical economic theory, foreign direct investment mainly involves the movement of productive capital from one country to another. When productive capital moves from capital-abundant countries to capital-scarce countries, it promotes greater world production and economic welfare in the same manner as expansion of international trade in goods under trade liberalization, and, accordingly, foreign direct investment is viewed as a substitute for international trade in goods (Mundell 1957). In this vein, high tariffs and other barriers to trade can induce foreign direct investment, but with little beneficial impact on domestic resource allocation and economic welfare in highly distorted host countries because typically the foreign direct investment is geared to servicing only small, "inward-looking" markets. In the global economy today, foreign direct investment is more often viewed from a "new trade theory" perspective emphasizing firm-level decisions to marshal proprietary assets and organize production processes across national boundaries in either horizontal multi-plant modes or vertically integrated modes. From this perspective, foreign direct investment is frequently viewed as instrumental in promoting foreign trade, particularly in host countries that maintain relatively open economies, stable macroeconomic conditions, limited restrictions on foreign exchange transactions (and repatriation of investment earnings), and protection for private property rights. Specifically, under such favorable conditions, foreign direct investment by multinational firms tends to foster export-oriented production following underlying comparative advantage factors, such as the relative abundance of low-wage labor in developing countries. It also accords well with the "flying geese" theory of foreign direct investment in populous developing Asia (Akamatsu 1962a,b). According to the flying geese theory, foreign direct investment disperses production technology and know-how from a high-wage source country to one or more lower-wage host countries. This dispersion of technology and know-how ultimately influences trade patterns as the primary location of production is gradually transferred off-shore by the high-wage source country to the lower-wage "follower" countries (similar to the pattern formed by flying geese). With its emphasis on differential wage levels between countries and creation of overseas "export platforms" by multinational firms, the flying geese theory of foreign direct investment in Asia provides an added explanation for the remarkable performance of East Asian exports. The flying geese theory also points to the nature of the problem faced by many, now, higher-income developing countries in East Asia, namely, the challenge of smoothly adjusting to new products and technologies as the comparative advantage of more advanced Asian countries gradually shifts to not only more physical capital-

intensive but also more human-capital-intensive and technology-intensive products that are more in line with higher average wage levels.

### **Regional Economic Cooperation and Development:**

Although South Asia was fairly late in embracing the concept of regional cooperation in trade, it was quick to set itself an ambitious agenda. The proposal to set up a South Asian Preferential Trade Agreement (SAPTA) was accepted by all seven member states of the South Asia Association for Regional Cooperation (SAARC) in 1993 and, with the ratification of the first round of tariff concessions, SAPTA came into formal operation in December 1995. In 1996, SAARC member countries agreed in principle to go a step further and attempt to enact a South Asian Free Trade Agreement (SAFTA) by 2000, but not later than 2005. In subsequent developments, the date for establishing SAFTA was inexplicably brought forward to 2001 at the "10th Heads of State Summit" held in Colombo in July 1998. However, reflecting the concerns of some of the smaller economies in the region, the Group of Eminent Persons (GEP) Report recommended a more gradual phase-in of SAFTA with a target date of 2008. At last, the SAARC region seems to be heading towards a Free Trade Area, SAFTA, that is an initial step in the evolution of the South Asia Association for Regional Cooperation as a regional trade bloc and an economic union. There is much speculation about its favorable effect on intra-regional trade. Regional economic integration is more about finding an engine of growth rather than trade. Countries — developed as well as developing — have started looking at regional economic integration as a means of strengthening their international competitiveness and as an engine of economic growth in recent years. By removing strong trade policy barriers to intra-regional trade, SAFTA would lead to expansion of intra-regional trade. By conservative estimates, it may help in trebling of the proportion of intra-regional trade, making it look more respectable compared to a marginal 4-5 per cent as of now. By making it possible to trade directly rather than through third countries, it would also lead to savings of substantial value for the region. However, expansion of mutual trade, saving of freight costs etc., should be seen as the spill-over rather than the real gains from the creation of SAFTA. The new-found interest in regional trade arrangements (RTAs) the world over is about exploiting the potential of efficiency-seeking restructuring of the industry to take advantage on a pan-regional basis rather than promotion of trade. These efficiencies lead to generation of income and hence could be valuable drivers of growth. It is true that these trades will lead to industrial restructuring, if one goes by the results of limited experiences with trade liberalization in the region. The Indo-Sri Lanka bilateral FTA for instance, even within a short period of less than three years of implementation, has led to a lot of dynamism in the intra-regional investments. Similarly, India-Nepal FTA of 1996 spurred some Indian companies to shift production of common consumer goods of every day use such as toothpaste for the north-Indian market to Nepal. As a result these items emerged as some of the most important items of Nepal's exports to India. Thus, SAFTA may help in evolving a horizontal specialization across the region to enable the most optimal utilization of the synergies of the member countries for their mutual advantage. Sri Lanka may well emerge as the region's hub for rubber-based industries, Bangladesh for energy-intensive industries and Bhutan, forest-based industries, and so on. The other lesson that comes out of recent experiences of regional economic integration in South Asia, as elsewhere, is that relatively smaller and poorer countries benefit more from RTAs. India-Sri Lanka FTA has brought down the trade surplus of India with the country from 8.6:1 to 4.9:1 in just two years. Therefore, RTAs lead to convergence in the levels of development. Regional economic integration will also make member countries, especially the smaller ones, more attractive destinations for third country investments by obviating the constraint of small domestic market.

### **Conclusion**

Therefore, an agreement to form SAFTA taken by the leaders of the region is a step in the right direction. However, to exploit its full potential for efficiency-seeking restructuring of regional economic integration, they would need to do further work to complement SAFTA by a customs union and then gradually move towards an economic union. The regional economic integration in South Asia could generate billions of dollars of new income, employment, trade and could help the region in its fight against poverty.

Both theory and evidence from regional integration arrangements suggest that measures that reduce trade costs among partner countries may provide an important stimulus not only to trade, but also to foreign direct investment (FDI). Also, specific regional integration initiatives can influence the level and pattern of FDI flows between member countries, as well as between member countries and outsiders. The SAARC integration initiatives have taken place in the context of a significant (non-discriminatory) liberalization process in all member countries. This has involved both trade and investment liberalization, and the adoption of a pro-FDI stance. Though significant trade and investment barriers remain in place in many countries, the regional economies are today far more open than they were until the late 1980s. The investigation here reveals that non-Asian emerging-market countries have made appreciable progress in closing the "trade policy gap" with other non-South Asian developing countries. During the last decade, SAARC countries have widely reduced their average levels of tariff protection and also, very importantly, their average levels of NTB protection. However, the South Asian economies remain among the world's most highly tariff-protected economies. Finally, regionalism in South East Asia, not unlike regionalism in other areas of the world today, poses important contradictions for the pursuit of more open policies towards foreign trade and investment in developing SAARC countries.

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# The Determinants of Foreign Direct Investment in Pakistan

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## Abstract

The paper empirically identifies the determinants of growth in foreign direct investment (FDI) in Pakistan over the period 1961 to 2003. Our main interest is to study how different variables or indicators reflecting trade, fiscal and financial sector liberalization attract FDI in Pakistan. The study uses the Cointegration and error-correction techniques to identify the variables in explaining the FDI in Pakistan. The study considers the tariff rate, exchange rate, tax rate, credit to private sector and index of general share price variables if they explain the inflow of foreign direct investment. Also included wages and per capita GDP to test for relative demand for labor and market size hypotheses. All variables indicated correct signs and are statistically significant except for wage rate and share price index. The study clearly emphasizes the role of these policy variables in attracting FDI and determining its growth in both short and long run in Pakistan. The study also indicates a positive and significant impact of reforms on FDI in Pakistan.

## Introduction

The significance of foreign direct investment (FDI) flows is well documented in literature for both the developing and developed countries. Over the last decade foreign direct investment have grown at least twice as rapidly as trade Meyer [30]. As there is shortage of capital in the developing countries, which need capital for their development process, the marginal productivity of capital is higher in these countries. On the other hand investors in the developed world seek high returns for their capital. Hence there is a mutual benefit in the international movement of capital.

The ongoing process of integration of the world economy and liberalization of the economies in many developing countries have led to a fierce competition for inward FDI amongst these countries. The controls and restrictions over the entry and operations of foreign firms in these countries are now being replaced by selective policies aimed at FDI inflows, like incentives, both fiscal and in kind. The selective policies not only improve the fundamentals of the economy but they aim at attracting more foreign investments in the country.

Accordingly during early 1980s, the government in Pakistan has initiated market-based economic reform policies. These reforms began to take hold in 1988, and since then the government has gradually liberalized its trade and investment regime by providing generous trade and fiscal incentives to foreign investors through number of tax concessions, credit facilities, and tariff reduction and have also eased foreign exchange controls Khan [23]. In the 1990s, the government further liberalized the policy and opened the sectors of agriculture, telecommunications, energy and insurance to FDI. But, due to rapid political changes and inconsistency in policies the level of FDI remained low compared to other developing countries. Nevertheless, the time series data on FDI inflows and stocks has shown remarkable progress over time particularly during the reform period of the 90's (see Table 1).

TABLE 1: FDI IN PAKISTAN

	Averages				2000	2001	2002	2003
	1970'S	1980'S	1990'S					
FDI Inflows in Million \$	18.00	88.83	500.27	305.10	385.40	823.00	1405.33	
FDI Stock as % of GDP		3.06	8.93	11.31	9.68	9.99	10.66	
FDI Inflows as % OF GFCF	8.89	16.54	54.93	3.62	5.01	10.32	15.42	

SOURCE: UNCTAD data on line

Extensive empirical literature on determinants of inward FDI emphasizes the economic conditions or fundamentals of the host countries relative to the home countries of FDI as determinants of FDI flows. This literature is in line with Dunning's eclectic paradigm [13], which suggests that it is the locational advantages of the host countries e.g., market size and income levels, skills, infrastructure and political and macroeconomic stability that determines cross-country pattern of FDI. Following this approach Nishat and Anjum [34] have estimated that political stability, peaceful law and order situation, level of technical labour force and mineral resources and liberal policies of the government attracted foreign investors in Pakistan.

However, it has been argued that the location specific advantages sought by foreign investors are changing in the globalised more open economies of today. Accordingly, in his path breaking work Dunning [14] finds out that FDI from more advanced industrialised countries depends on government policies, transparent governance and supportive infrastructure of the host country. However, very few studies exist that have empirically estimated the impact of selective government policies aimed at FDI.

The present study adds to the existing literature by empirically examining the response of FDI to selective policies, namely tax and tariff policy, fiscal incentives offered and exchange rate policies in Pakistan. More specifically, the objective of this study is to find out the effectiveness of these policies during the reform period. From this study we would be able to see which specific government policy is attracting or distracting FDI in Pakistan. This study would be of interest to policy makers in many developing countries where structural reforms are being implemented.

The rest of the paper is organized that section 2 reviews the literature and describes the theoretical framework. Section 3 describes the econometric model and data followed by estimation and interpretation of results in section 4. The summary and concluding remarks are provided in section 5.

## **Literature Review and Theoretical Framework**

An extensive set of determinants has been analyzed in the literature on the determinants of FDI. Numerous empirical studies (Agarwal, [1]; Gastanaga et. al., [19]; Chakrabarti, [11]; and Moosa, [32]) on the determinants of FDI lead us to select a set of explanatory variables that are widely used and found to be significant determinants of FDI. For example Markusen and Maskus, [29]; Lim, [25]; Love and Lage-Hidalgo, [27]; Lipsey, [26] and Moosa [32] highlight how the domestic market size and differences in factor costs can relate to the location of FDI. To foreign investors who operate in industries characterized by relatively large economies of scale, the importance of the market size and its growth is magnified. This is because they can exploit scales economies only after the market attains a certain threshold size. The most widely used measures of market size are GDP, GDP/capita and growth in GDP. The signs of these coefficients are usually positive.

Discussing the labor cost which is one of the major components of the cost function, it is mentioned that high nominal wage, other things being equal, deters FDI. This must be particularly true for the firms, which engage in labor-intensive production activities. Therefore, conventionally, the expected sign for this variable is negative. The studies that find no significant or a negative relationship of wage and FDI are: Kravis and Lipsey, [24]; Wheeler and Mody, [42]; Lucas, [28]; Wang and Swain, [41]; and Barrell and Pain, [4]. Nonetheless, there are other researchers who have found out that higher wages do not always deter FDI in all industries and have shown a positive relationship between labor costs and FDI (Moore, [31]; and Love and Lave-Hidalgo, [27]). Because higher wages indicate higher productivity, hi-tech research oriented industries in which the quality of labor matters, prefer high-quality labor to cheap labor with low productivity.

Recently, a few researchers have also studied the impact of specific policy variables on FDI in the host countries. These policy variables include openness of trade, tariff, taxes and exchange rate. Gastanaga, Nugent, and Pashamova [19] and Asiedu [3] focus on policy reforms in developing countries as determinants of foreign direct investment inflows. They find corporate tax rates and degree of openness to foreign direct investment to be significant determinants of FDI. Similarly many recent models highlight the effect of tariffs on FDI within the context of horizontal and vertical specialization within MNEs (Ethier, [17] [16]; Brainard, [7]; Carr, Markusen, and Maskus, [10]).

The horizontal FDI can be associated with market seeking behaviour and is motivated by lower trade costs. Hence high tariff barriers induce firms to engage in horizontal FDI, and thus, replace exports with production abroad by foreign affiliates. This “tariff jumping” theory implies a positive relationship between import duty and FDI. While a typical vertical FDI can be characterized by individual affiliates specializing in different stages of production of the output. The semi-finished products, in turn, are exported to other affiliates for further processing. By fragmenting the production process, parent firms and affiliates take advantage of factor price differentials across countries. The MNEs, which set up vertical production networks may be encouraged to invest in a country with relatively low tariff barriers due to lower cost of their imported intermediate products. Therefore, the expected sign of import duty variable is negative in this case. With the decline in tariff rate due to trade liberalization in the developing countries, imports have increased by MNC’s. For Pakistan, Khan [23] confirms that imports have increased by MNC’s as trade is being liberalized as a result of the recent structural reforms.

For foreign investors the fiscal incentives and taxation structure is very important. The tax rate affects the profitability of investment projects. Therefore foreign investors seek locations where taxes are low. Various tax break regimes are often offered to multinationals as an incentive to attract FDI inflows. Empirical studies indicated a negative relationship between taxes and the location of businesses (Newman and Sullivan, [33]; Gastanaga et al ./[ 19]; Billington, [5]; Shah and Ahmed, [38]; and Bora [6]. On the other hand Carlton, [9] Hines and Rice, [21] and Hines [20] found no support on the impact of taxes on FDI. Interestingly, Swensen [39] empirically finds a significant positive effect of taxes on inward FDI.

Likewise the effect of exchange rate movements on FDI flows is a fairly well studied topic, although the direction and magnitude of influence is far from certain. Froot and Stein [18] claimed that a depreciation of the host currency should increase FDI into the host country, and conversely an appreciation of the host currency should decrease FDI. Similarly, Love and Hidalgo [27], also acknowledge that the lagged variable of exchange rate is positive which indicates that a depreciation of the peso encourages US direct investment in Mexico after some time. Contrary to Froot and Stein, [18] and Campa [8] while analyzing foreign firms in the US puts forth the hypothesis that an appreciation of the host currency will in fact increase FDI into the host country that suggests that an appreciation of the host currency increases expectations of future profitability in terms of the home currency.

## Econometric Model Specification and Data

In the light of above discussion following model is formulated to determine the impact of various types of selective government polices and other variables to attract FDI in Pakistan.

$$FDI_t = f(GDP_t, WAGE_t, TARIF_t, TAX_t, CREDIT_t, EX_t, INDEX_t, DUM1_t, DUM2_t)$$

where	<i>FDI</i>	=	<i>Growth in FDI inflows(deflated by GDP deflator)</i>
	<i>GDP</i>	=	<i>Log of GDP/Capita</i>
	<i>WAGE</i>	=	<i>Log of Average Annual wages of factory workers in perennial industries (deflated by GDP deflator)</i>
	<i>TARIF</i>	=	<i>Ratio of custom duties to total value of imports</i>
	<i>TAX</i>	=	<i>Share of corporate tax in total taxes</i>
	<i>CREDIT</i>	=	<i>Share of credit of the private sector in total credit to public and private sectors</i>
	<i>EX</i>	=	<i>Average Annual Exchange Rate as rupees / \$</i>
	<i>INDEX</i>	=	<i>Log of General Share Price Index</i>
	<i>DUM1</i>	=	<i>1 for the period 1972 to 2003, 0 otherwise</i>
	<i>DUM2</i>	=	<i>1 for the period 1989 to 2003, 0 otherwise</i>

We expect that the coefficient of GDP would be positive because foreign investors are only interested where there is a big market of their product. The coefficient for WAGE would be negative as there is low level of skilled labour force in Pakistan and only labour intensive FDI would be forthcoming as wages are low. It has been

observed that as trade is being liberalized and tariffs are being eliminated on the import of machinery, FDI has increased in Pakistan. Therefore, we expect a negative relationship between FDI and TARIF. As credit to foreign investors is an investment incentive, we expect a positive sign for coefficient of CREDIT. The coefficient for exchange rate (EX) is ambiguous in many studies. As it could be positive if foreign investors are considering it as lower cost of capital and negative if they are expecting a higher return on their investments. In case if the sign of INDEX is negative it indicates that the government pursues policies to attract FDI when capital market is sluggish. However, a positive sign for INDEX suggests that the foreign investors are concerned with the investment climate of the country.

The data used in the empirical investigation covers annual data for the period from 1961 to 2003. The data of FDI is collected from various issues of “Assets, Liabilities and Foreign Investment” published by State Bank of Pakistan. The exchange rate is extracted from the electronic data of “International Financial Statistics”. The data of all the other variables are from “50 Years of Pakistan” and various issues of “Pakistan Statistical Year Book” published by Federal Bureau of Statistics, Government of Pakistan.

## Estimation and Empirical Results

To investigate the nature of any long-run relationship between FDI inflows and the variables suggested in our model, we now proceed to examine whether the series are cointegrated, implying that any deviations from any long run equilibrium relationship that exists between them will themselves be stationary. Unless series are cointegrated, there is no equilibrium relationship between variables and inference is worthless. Our justification for employing the techniques of co-integration in this instance amount to two related reasons; First, discovering that variables are co-integrated, allows for the use of error-correction models which allow for the separation out of long run and short run impacts; see Alogoskoufis and Smith, [2]. Second, the presence of co-integration between two variables ensures that an OLS regression in levels yields consistent parameter estimates Engle and Granger, [15]. This would in effect signify whether there is a stable long run relationship between the variables. An empirical work by Dickey, Jansen and Thornton, [12] indicates that Johansen's [22] maximum likelihood estimator of a vector autoregressive (VAR) model is superior. Testing for cointegration using a single equation model is problematic if more than one cointegrating relationship is present.

### Unit Root Test

To test for cointegration, we first verify that all the above-mentioned variables that we expect to be cointegrated with growth in FDI flows are each individually I(1). In this section we perform unit root tests for stationarity on the levels and the first differences of all eight variables. The Phillips Perron [37] unit-root test both with and without trend show the existence of unit roots (Table2), and therefore non-stationarity in the levels of some variables (TARIF, TAX, CREDIT, IINDEX, GDP and WAGE). However, the first differences of these six variables are stationary at 1% significance level. Hence we conclude that these variables are integrated of order 1. The FDI is stationary at the level, and is therefore an I(0) variable. The variable EX is stationary in levels with out trend and stationary at first difference with trend.

TABLE 2: PHILLIPS-PERRON UNIT ROOT TEST

	With No Trend		With Trend	
	Level	First Difference	Level	First Difference
FDI	-6.25*	-	-6.27*	-
TARIF	-1.30	-5.53*	-2.30	-5.53*
TAX	-1.20	-7.68*	-3.06	-7.85*
CREDIT	-2.69	-6.81*	-2.75	-6.69*
EX	5.39*	-	1.06	-5.82*
INDEX	-0.10	-6.50*	-2.23	-6.47*
GDP	-0.79	-10.17*	-4.02	-10.51*
WAGE	-1.36	-6.47*	-2.63	-6.44*

\* Significant at 1 percent

\*\* Significant at 5 percent

### Estimation of a Cointegrating Vector

In order to identify a cointegration relation among the variables mentioned in the previous subsection, we employ the Johansen cointegration test. Before undertaking the cointegration tests, we first specify the relevant order of lags ( $p$ ) of the vector autoregressions (VAR) model.

Since the sample size is relatively small, we select 1 for the order of the VAR (Pesaran and Pesaran, [36]). The results of rank and trace statistics obtained from the Johansen- Juselius (JJ) method using the assumption of linear deterministic trend in the data are presented in Table 3. The trace and the rank tests suggest  $r = 1$  at 5 and 10 percent significance levels respectively. Therefore, our annual data appear to support the proposition that in Pakistan there exist a long-run relation between growth of FDI and its determinants.

TABLE 3: JOHANSEN'S COINTEGRATION TEST RESULTS

Null	Alternative Trace	Alternative Rank	Trace Test Statistic	Rank Test Statistics
$r=0$	$r \geq 1$	$r=1$	160.97**	<b>48.42***</b>
$r \leq 1$	$r \geq 2$	$R=2$	112.55	39.837
$r \leq 2$	$r \geq 3$	$r=3$	72.71	23.391
$r \leq 3$	$r \geq 4$	$r=4$	49.32	21.48
$r \leq 4$	$r \geq 5$	$r=5$	27.84	12.89
$r \leq 5$	$r \geq 6$	$r=6$	14.95	9.25
$r \leq 6$	$r \geq 7$	$r=7$	5.70	5.09
$r \leq 7$	$r \geq 8$	$r=8$	0.61	0.61

\*\* Significant at 5 percent

\*\*\* Significant at 10 percent

See O. M. Lenum,(1992), for critical values

### Estimation of an Error-Correction Model

After confirming the long run relationship among the variables, we can proceed to model the short run adjustment behaviour of the variables as further confirmation of our results. Following Love and Lage-Hidalgo, [27] we can choose to estimate the short run VAR in error correction form (VECM). The VECM model is intended to describe the short-term dynamics of growth of FDI inflows in Pakistan. This type of model explains the immediate short-term changes in dependent variable by means of deviations from a particular equilibrium relationship between the dependent variable and the explanatory variables. The common approach is to reformulate the long run relationship to include lagged values of first differences in the relevant variables with the error correction term explicitly included.

So now we use deviations from the cointegration relation estimated in the previous section as the error-correction term when building the ECM. Two error correction models with and without dummies are estimated to distinguish the behavior of foreign direct investment during non-reform and reform periods. In particular, two dummies are used to reflect the changes in the government measures, which could have affected the growth of FDI. One DUM1 reflects the structural break reflecting a massive devaluation of rupee of about 58% in 1972, it takes the value of 1 for 1972 and onwards and the other DUM2 which reflects the liberalization measures taken under the structural reforms of 1988, takes the value of 1 for 1989 and onwards. The results of estimation of the ECMs are shown in Table 4. The lags of the explanatory variables are chosen in according to Akaike Information Criteria and indicate lags upto two periods.

TABLE 4: VECTOR ERROR CORRECTION MODELS

	Model 1		Model 2	
Error Correction:	D(FDICG)		D(FDICG)	
CointEq1	-1.36*	(-4.34)	-1.87*	(-9.85)
D(FDI(-1))	0.38	(1.48)	0.42*	(3.10)
D(FDI(-2))	0.30	(1.36)	0.19	(1.62)
D(TARIF(-1))	-35.67**	(-2.46)	-21.34**	(-2.64)
D(TARIF(-2))	-25.68	(-1.60)	-16.06	(-1.67)
D(TAX(-1))	28.91	(1.20)	-47.74*	(-3.38)
D(TAX(-2))	6.88	(0.30)	-36.22**	(-2.59)
D(CREDIT(-1))	-1.16	(-0.05)	48.69*	(3.37)
D(CREDIT(-2))	45.94**	(2.22)	43.82*	(3.70)
D(EX(-1))	-0.55	(-1.02)	-0.65***	(-2.00)
D(EX(-2))	1.47***	(2.05)	-0.64	(-1.53)
D(INDEX(-1))	-5.81***	(-1.88)	-1.70	(-0.91)
D(INDEX(-2))	2.45	(0.89)	-2.49	(-1.44)
D(GDP(-1))	53.23*	(3.08)	35.84*	(3.69)
D(GDP(-2))	-14.05	(-0.69)	23.11***	(1.87)
D(WAGE(-1))	-3.16***	(-1.81)	-1.30	(-1.34)
D(WAGE(-2))	-4.00***	(-1.73)	0.01	(0.01)
C	-1.79	(-1.54)	-15.95*	(-9.09)
DUM2			6.71*	(6.39)
DUM1			16.88*	(13.40)
R-squared	0.72		0.92	
Adj. R-squared	0.50		0.84	
RESET	0.71	(0.409)	.04	(0.85)
LM	3.51	(0.050)	0.99	(0.39)
WHITE	2.96	(0.149)	1.11	(0.58)
JB	0.78	(0.47)	1.13	(0.57)

\* Significant at 1 percent

\*\* Significant at 5 percent

\*\*\* Significant at 10 percent

### Interpretation of Empirical Results

The analysis of the results of these two ECM models presented in Table 4 suggest that model 2 has more explanatory power with adjusted  $R^2 = 0.84$ , and satisfies the relevant diagnostic checks for serial correlation, functional form, non-normality and heteroscedasticity and thus has the desirable properties for OLS estimation. The results of model 2 indicate that the error correction coefficient, estimated at  $-1.87$  is statistically significant at the 1 per cent level, has the correct sign, and suggests a good speed of convergence to equilibrium. As indicated all the variables except the average wage and index of general share prices are statistically significant and have the expected signs. Furthermore, the lagged dependent variable included in the error-correction model has positive sign and is statistically significant. This means that the short-run dynamics of inward FDI are influenced by the previous development of FDI influx by means of the “agglomeration” or “clustering effect”. Thus our results give some evidence that reducing import tariffs and corporate tax rate would positively affect the growth of FDI. Moreover, the coefficient of exchange rate is positive implying that when rupee appreciates, FDI increases as investors see it as a good sign for the economy and expect high returns. However, DUM1 is positive and significant which also indicates that devaluation had decreased the cost of assets in Pakistan and attracted foreign investment or perhaps since the data on FDI is in rupees, there is just a nominal jump in the data. Additionally, encouraging private sector through its generous credit policy would accelerate the growth of FDI. More importantly, the statistical significance of our dummy DUM2 reinforces our results that the liberalization measures taken to attract FDI have positive impacts on the growth of FDI in Pakistan.

## Summary and Concluding Remarks

The paper empirically identifies the determinants of growth in foreign direct investment (FDI) in Pakistan over the period 1961 to 2003. Our main interest is to study how different variables or indicators reflecting trade, fiscal and financial sector liberalization attract FDI in Pakistan. The study uses the Cointegration and error-correction techniques to identify the variables in explaining the FDI in Pakistan. The study considers the tariff rate, exchange rate, tax rate, credit to private sector and index of general share price variables if they explain the inflow of foreign direct investment. Also included are wages and per capita GDP to test for relative demand for labor and market size hypotheses. All variables indicated correct signs and are statistically significant except for wage rate and share price index. The study clearly emphasizes the role of these policy variables in attracting FDI and determining its growth in both short and long run in Pakistan. The study also indicates a positive and significant impact of reforms on FDI in Pakistan.

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# The More Transparent, The Better?: Effect of Quote and Order Disclosure in Korean Stock Market

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## Abstract

In an effort to improve market transparency, more information regarding quotes and orders has been disclosed by Korean Stock Exchange in last 5 years. This paper studies the effects of four events aimed to improve transparency: two for market opening by single-price call auction, and two for regular trading hours operated by continuous auction. We select 20 stocks before and after each event, 10 largest stocks in market capitalizations, and another 10 stocks based on trading volumes, before and after each event to investigate how liquidity, depth, and investors trading behavior were affected by these events. We find that market liquidity and depth were generally improved as more information on quotes and orders were disclosed but not by statistically significant margin. Smaller number of orders were cancelled and it took less time to for traders to cancel orders after the Exchange adopted actions to improve transparency, which implies that traders have adjusted their trading patterns as the market became transparent.

## Introduction

Market transparency generally refers to the ability of market participants to observe the information in the trading process including bid and ask prices and outstanding orders. Among many aspects of the institutional design of financial market, transparency is arguably the most controversial issue, which draws academic interest as well as serious regulatory concerns, and provides little consensus as to its overall effect on the market.

Some academicians, including Glosten (1999) have shared beneficial view of transparency in that increased transparency should ameliorates the adverse selection problem by a greater commonality of information, and thereby prices become more efficient and spreads should be smaller. However, others, most notably Madhavan, Porter and Weaver (2000) argue that higher transparency does not improves market quality since liquidity providers are less willing to offer free options to other traders, which consequently results in widened spreads and reduction in asset values. Regulators' views on the effect of market transparency are also equally split. US Securities and Exchange Commission (SEC, 1994) and the UK Office of Fair Trading (Carsberg, 1994) have called for increased transparency as a way to improve market quality. The Securities Investment Board (SIB, 1994) opposes higher transparency contending that increased transparency will reduce liquidity as market maker positions must be publicly disclosed.

Theoretical works including Baruch (2003), Pagano and Roell (1996) show that market transparency has substantially different effects depending on specific trading mechanisms of the financial markets such as call versus continuous auction, presence of market makers, to name a few. As clearly pointed out by Glosten (1999), studying the effect of market transparency, particularly subjecting theories to empirical test is even more daunting task as changes in transparency regimes are infrequent and, hardly ever exogenous. Madhavan, Porter and Weaver (2000) and Boehmer, Saar and Yu (2003) empirically examine transparency regime changes associated with public disclosure of limit order books in Toronto Stock Exchange (TSE) and New York Stock Exchange (NYSE) respectively.<sup>1</sup> They show very different results on the effect of higher transparency: the former shows detrimental effect of increased transparency on liquidity with both higher transaction costs and volatility while the latter demonstrates improved liquidity and positive cumulative abnormal returns after the implementation of OpenBook

which forces specialists' publicly disclose their limit order books. Bloomfield and O'Hara (1999) and Flood et al. (1999) adopt experimental methods<sup>ii</sup> to overcome the limit on empirical testing on market transparency, but both articles show that increased transparency produces quite different effect on the market quality depending on the specifics of market design.

Korea Stock Exchange (KSE) offers interesting venue to investigate the effect of market transparency in two important respects. First, it adopts two different trading mechanisms, single-price call auction for opening and closing the market, and continuous call auctions during regular trading hours. Second, since 1988, KSE continuously improves market transparency by disclosing more quote and order related information. This paper focuses on four events regarding transparency regime changes, two on market opening call auction system, and remaining two on continuous auction mechanism. We select 20 stocks before and after each event, 10 largest stocks in market capitalizations, and another 10 most actively traded stocks based on trading volumes, before and after each event to investigate how liquidity, depth, and investors trading behavior were affected by these events. We find that higher transparency improves market liquidity and depth but not by statistically significant margin. Smaller number of orders were cancelled and it took less time to for traders to cancel orders after KSE adopted measures to improve transparency, which implies that traders have adjusted their trading strategies s as the market became more transparent.

The rest of this paper proceeds as follows. Section 2 provides details of trading mechanisms and transparency regime changes that will be analyzed in this paper. Section 3 presents the data used in the investigation, and the results of our empirical testing. Section 4 concludes.

## Trading Mechanisms and Transparency Regime of Korea Stock Exchange

Korea Stock Exchange uses two different trading mechanisms, single price call auction and continuous auction systems without any help from market makers. Call auction mechanism is used for opening and closing the market, and it is also adopted when trading is resumed after temporary halt during regular hours. Traders are allowed to submit their limit orders from 8:30 in the morning, and market opens at 9:00am as accumulated orders are cleared at a single price that maximizes equilibrium trading volume. After market opens, trading mechanism switches to continuous auction mechanism, and as traders submit their orders, limit order book is built, and tradings are executed continuously through KSE's electronic order submitting and clearing system.

In order to improve market transparency, KSE continuously expand the range of information on order and quote related information since 1988. This paper analyzes the effect of market transparency regime changes in four events, two on market opening call auction system, and remaining two on continuous auction mechanism.<sup>iii</sup>

### Continuous Auction System

Event	Date	Changes
Even #1	Mar. 6, 2000	5 best ask and bid quotes and corresponding order for each quote, and total outstanding orders are disclosed.
Event #2	Jan. 2, 2002	Order and quote information are expanded from 5 to 10 best ask and bid quotes and corresponding order for each quote, but information on total outstanding orders is not disclosed

### Call Auction System

Event	Date	Changes
Even #3	Sep. 30, 2002	Projected opening price and trading volume, and best ask and bid prices with corresponding orders at these quotes
Event #4	Oct. 6, 2003	Order and quote information to be disclosed is expanded to 3 best bid and ask prices and corresponding orders at each quote.

In the following section, we analyze how these transparency regime changes<sup>iv</sup> affect liquidity, market depth and trading strategies.

## Data and Empirical Analysis

### Data and Empirical Methodology

As of each event date, we select 10 stocks ranked by market capitalization, and another 10 most actively traded stocks measured by trading volume. List of stocks for event date is given in Table 1. In order to measure liquidity, depth, order cancellation and market order, we proceed to build limit order book for sample stock from the scratch for 10 days before and after each event, which requires full set of order and quote data and transaction record from 8:30 in the morning when orders are first submitted until closing of the market.<sup>v</sup> Order and quote data contains very detailed information in real time including bid and ask prices, orders submitted for each quote, and time of order submission and cancellation. By matching this order and quote data with transaction record, we can build complete limit order book for each sample stock.

We analyze the effect of transparency regime change on liquidity by six different measures of spread. Dollar spread is the difference between best ask and bid prices, and effective spread is measured by the difference between the mid-point of the dollar spread and the transaction price. We calculate weighted average dollar spread with weights measured by trading volume for each minute. This measure of spread has the advantage of reflecting difference in intra day trading activities. Percentage spreads are calculated by dividing each measure of spread with mid-point of the dollar spread. If higher transparency has positive effect on liquidity, then these measures of liquidity will shrink by statistically significant margin.

TABLE 1: SAMPLE STOCKS

	Event #1		Event #2		Event #3		Event #4	
	Volume	Mkt. Cap.	Volume	Mkt. Cap.	Volume	Mkt. Cap.	Volume	Mkt. Cap.
1	Hundai Electronics	Samsung Electronics	Hynix Semiconductor	Samsung Electronics	Hynix Semiconductor	Samsung Electronics	Hyundai Engineering & Construction	Samsung Electronics
2	Daewoo	SK Telecom	Mirae Corporation	SK Telecom	Kabool Ltd	SK Telecom	KDS	SK Telecom
3	HanBit Bank	Korea Electric Power Corporation	ChoHung Bank	KT Corporation	Gara Telecom	KT Corporation	Kirin Corporation	KT Corporation
4	Hansol CSN	POSCO	Anam Semiconductor	Kookmin Bank	Kemongsa	Kookmin Bank	Daeyoung Packaging	Korea Electric Power Corporation
5	Samsung Heavy Industries	Samsung Electro-mechanics	Hyundai Engineering & Construction	Korea Electric Power Corporation	Korea Development Leasing Corporation	Korea Electric Power Corporation	COSMO Chemical	Kookmin Bank
6	KEP Electronics	LG Information & communication	Korea Exchange Bank	POSCO	KDS	POSCO	Hynix Semiconductor	POSCO
7	Samsung Corporation	Kookmin Bank	Shinsung ENG Corporation	Hyundai Motor	Shinwon	Hyundai Motor	Hyundai Autonet	LG Electronics
8	Hyundai Engineering & Construction	Hyundai Motor	SK Securities	Shinhan Financial Group	Mirae Corporation	LG Electronics	Cecrop Corporation	Hyundai Motor
9	Youngwon Corporation	LG Chemistry	Dongyang Steel Pipe	LG Electronics	Hyundai Corporation	Shinhan Financial Group	KG Chemical	Samsung SDI
10	Daewoo Heavy industries & machinery	LG Electronics	KwangDong Pham	KT&G Corporation	Hyundai Engineering & Construction	Samsung SDI	Korean Ginseng Products Co.	Shinhan Financial Group

We proceed to analyze the effect of transparency regime change on market depth. For each buy and sell side of limit order book, we derive outstanding orders at the best price, 3, 5, 10 best prices, each of which is divided by total outstanding orders for each buy and sell side. Sell (Buy) depth denotes the difference between order-weighted ask (bid) prices and best ask (bid) price, and percentage of sell (buy) depth is measured by the ratio between sell (buy) depth and best ask (bid) price. Depth denotes the summation of sell and buy depths.

To investigate the effect of market transparency on market participants trading strategies, we check order cancellations and market orders.<sup>vi</sup> For both call and continuous auctions, total number of order cancellation, total sizes of cancelled orders, average time that elapses between order submission and cancellation, average cancellation distance measured by the difference between quote of the cancelled order and mid-point of the spread, and average percentage cancellation distance derived by dividing cancellation distance with mid-point of the spread are derived. We proceed to investigate the total number market buy (sell) orders and total sizes of market buy (sell) orders. To check the relative importance of market order, we divide total number market buy (sell) orders with total number of order executions, and derive the ratio between total sizes of market buy (sell) orders and total sizes of order executed.

### Empirical Results

#### Continuous Auctions

Table 2 summarizes the effect of transparency regime changes on liquidity of 10 largest stocks in market capitalization. After event #1 in which order and quote information disclosure was expanded from 3 best bid and ask prices to 5, there is slight improvement in liquidity with narrower dollar and effective spreads although their changes are not statistically significant. However, after event #2 both spreads are widened while percentage spreads become narrower though not by statistically significant margin. Unlike event #1, event #2 does not necessarily improve market transparency as the information on 10 best bid and ask prices and quotes is publicly disclosed while that on total outstanding order becomes unavailable to traders. Weighted average spreads also show similarly pattern of change after each event as other dollar and effective spreads.

TABLE 2: LIQUIDITY OF 10 STOCKS RANKED BY MARKET CAPITALIZATION: CONTINUOUS AUCTION

	#1 (00.3.6)				#2 (02.1.2)			
	-10	+10	diff	t-stat	-10	+10	diff	t-stat
<b>spread</b>	1,618.94	1,336.03	282.9	0.15	147.97	154.25	-6.289	-0.08
<b>%spread</b>	0.258761	0.244365	0.014396	0.41	0.178780	0.173677	0.005103	0.16
<b>e-spread</b>	725.32	593.70	131.62	0.16	75.44	77.90	-2.452	-0.06
<b>%e-spread</b>	0.132733	0.125028	0.007705	0.46	0.091904	0.088622	0.003281	0.21
<b>w-spread</b>	6.8171	5.9239	0.8932	0.11	0.4693	0.4743	-0.005	-0.02
<b>%w-spread</b>	0.000987	0.000938	0.000048	0.35	0.000577	0.000538	0.000038	0.31

-10 and +10 refer to 10 days before and after the event respectively. Spread denotes dollar spread, and e-spread and w-spread refer to effective spread, and weighted average spread respectively. Percentage spreads are calculated by dividing each spread with mid-point of the spread.

Table 3 reports changes in market depth after event #1 and #2. Event #1 causes improvement in market depth of sell side although not statistically significant margin as more sell orders tend cluster around the best, 3, 5, and 10 best ask prices in both absolute order sizes and percentage of total buy orders, which is consistent with the narrower sell depth. But buy side of orders demonstrates different picture in that total order sizes increase for the best, 3, 5, and 10 best bid prices in absolute amount while their portions in total sell buy orders decrease. Increase in buy depth although not by statistically significant margin means that market depth is not improved after event #1. Market depth after event #2 has mixed results but depth in sell side slightly improves while that in buy side deteriorates marginally as noticed by narrower sell depth and wider buy depth.

Changes in trading strategies are investigated by order cancellation and market orders, and the results are given in Table 4. We cannot find any noticeable changes in order cancellation except that average time between order submission and cancellation increases by statistically significant margin after event #1. We can notice that event #1 causes less use of market orders while traders submit more market order after event #2.

Table 5 reports changes in liquidity for 10 most actively traded stock after event #1 and #2. We cannot find improvement in liquidity as absolute sizes of dollar and effective spreads widen while percentage spreads decrease after each event. We can conjecture slight deterioration in liquidity after event #2 as weighted average spread in both absolute size and percentage of mid-point of the spread increase.

We find marginal deterioration in market depth for 10 most actively traded stocks after each event particularly noticed by worsening of both sell and buy depths after event #1 as is shown in Table 6. That means, tendency for orders to cluster around best bid and ask prices are generally, but not by statistically significant margin, weakened.

Table 7 reports order cancellation and market order 10 most actively traded stocks. We cannot find any changes in order cancellation after event #1, but they increase slightly after event #2. Traders use market order less frequently to submit sell orders after event #1, but market orders are used more actively after event #2 although not by statistically significant margin.

TABLE 3: MARKET DEPTH OF 10 STOCKS RANKED BY MARKET CAPITALIZATION: CONTINUOUS AUCTION

		#1 (00.3.6)				#2 (02.1.2)			
		-10	+10	diff	T-stat	-10	+10	diff	T-stat
Sell	Total	203,396	242,543	-39,147	-0.49	204,219	194,001	10,219	0.19
	Best ask	6,859.60	12,598.88	-5,739	-0.72	4,300.58	4,299.54	1.0395	0.00
	% of best ask	0.0329	0.0478	-0.015	-0.55	0.0252	0.0266	-0.001	-0.26
	3 best ask	24,631.20	34,029.94	-9,399	-0.67	21,195.22	20,348.61	846.62	0.12
	% of 3 best ask	0.1217	0.1356	-0.014	-0.3	0.1142	0.1217	-0.007	-0.33
	5 best ask	41,102.42	55,295.18	-14,193	-0.65	38,392.79	37,253.91	1,138.9	0.08
	% of 5 best ask	0.2042	0.2220	-0.018	-0.31	0.2008	0.2153	-0.014	-0.4
	10 best ask	73,778.12	96,899.50	-23,121	-0.6	71,586.93	72,825.62	-1,239	-0.05
	% of best ask	0.3683	0.3793	-0.011	-0.15	0.3670	0.4005	-0.034	-0.6
	Sell depth	35,888.92	29,943.10	5945.8	0.15	3,913.18	3,845.82	67.357	0.03
% of sell depth	5.6895	5.2620	0.4275	0.81	5.1598	4.4620	0.6977	0.91	
Buy	Total	234,438	292,426	-57,987	-0.6	193,057	246,337	-53,281	-0.86
	Best bid	3,585.79	4,244.07	-658.3	-0.43	3,711.69	3,927.57	-215.9	-0.2
	% of best bid	0.0244	0.0183	0.0061	0.91	0.0238	0.0192	0.0045	0.97
	3 best bid	15,346.93	18,618.68	-3,272	-0.45	17,625.59	19,066.37	-1,441	-0.26
	% of 3 best bid	0.0760	0.0683	0.0077	0.52	0.1087	0.0912	0.0175	0.85
	5 bid ask	28,018.13	35,461.92	-7,444	-0.54	33,158.65	35,410.35	-2,252	-0.21
	% of 5 bid ask	0.1304	0.1255	0.0049	0.19	0.1997	0.1672	0.0325	0.92
	10 best bid	58,796.81	77,765.51	-18,969	-0.63	66,515.85	74,630.54	-8,115	-0.37
	% of 10 best bid	0.2636	0.2627	0.0009	0.02	0.3806	0.3380	0.0426	0.74
	Buy depth	30,014.90	37,573.95	-7,559	-0.18	3,683.18	4,216.78	-533.6	-0.25
% of buy depth	6.5238	6.5555	-0.032	-0.1	4.4291	4.5613	-0.132	-0.6	
DEPTH	65,903.82	67,517.05	-1,613	-0.02	7,596.35	8,062.60	-466.2	-0.11	

Best ask refers to the total orders at best ask price, and % of best ask is derived by dividing best ask with total sell orders. 3 best ask refers the combined outstanding orders for 3 best ask prices. Sell depth denotes the difference between order-weighted ask prices and best ask price, and % of sell depth is the ratio between sell depth and best ask price. Other variables are defined in the similar way. Depth denotes the summation of sell and buy depths.

TABLE 4: ORDER CANCELLATION AND MARKET ORDERS OF 10 STOCKS RANKED BY MARKET CAPITALIZATION: CONTINUOUS AUCTION

	#1 (00.3.6)				#2 (02.1.2)			
	-10	+10	diff	t-stat	-10	+10	diff	t-stat
# of cancellation	2,085	1,737	348.04	0.83	1,893.86	2486.68	-592.82	-0.96
Size of cancellation	940,078	1,043,970	-104,000	-0.27	731,376	879,478	-148102	-0.66
Cancellation time	2,774.8	3,419.30	-644.5	-4.48	3,081.95	2,802.54	279.40	1.11
Cancellation distance	13,273.4	12,756.5	516.89	0.03	1342.71	1487.20	-144.48	-0.23
Cancellation weight	51.6653	52.0512	-0.386	-0.11	28.7999	27.8497	0.9502	0.6
Sell # of MO	185.60	133.55	52.05	1.29	82.05	123.60	-41.55	-1.39
% of MO	0.0294	0.0267	0.0027	0.86	0.0160	0.0169	-0.00097	-0.46
Size of MO	65,337.8	50,646.2	14,692	0.62	18,428.3	29,826	-11,398	-1.3
% of MO size	0.0496	0.0386	0.0111	1.64	0.0167	0.0218	-0.005	-1.65
Buy # of MO	256.55	186.41	70.14	1.36	104.52	165.44	-60.92	-1.83
% of MO	0.0427	0.0393	0.0034	0.96	0.0226	0.0235	-0.0009	-0.39
Size of MO	76,830	68,001	8828.8	0.31	26,175.3	41,569.5	-15,394	-1.31
% of MO size	0.0607	0.0611	-0.00043	-0.07	0.0246	0.0288	-0.004	-1.57

# of cancellation and size of cancellation refer to total number of order cancellation and total sizes of cancelled orders respectively. Cancellation time and cancellation distance denote average time that elapses between order submission and cancellation and average cancellation distance measured by the difference between quote of the cancelled order and mid-point of the spread. Cancellation weight is defined as average percentage cancellation distance derived by dividing cancellation distance with mid-point of the spread are derived. For each buy and sell side, # of MO and size of MO refer total number market buy orders and total sizes of market orders respectively. % of MO is derived by dividing total number market orders with total number of order executions, and % of MO size is the ratio between total sizes of market buy (sell) orders and total sizes of order executed.

TABLE 5: LIQUIDITY OF 10 STOCKS RANKED BY TRADING VOLUME: CONTINUOUS AUCTION

	#1 (00.3.6)				#2 (02.1.2)			
	-10	+10	diff	t-stat	-10	+10	diff	t-stat
spread	14.6764	15.9473	-1.271	-0.18	4.52	5.67	-1.156	-1.38
% spread	0.375224	0.361184	0.014040	0.12	0.188709	0.169123	0.019586	0.63
e-spread	7.4722	8.1753	-0.703	-0.19	2.15	2.79	-0.643	-1.27
% e-spread	0.176417	0.172832	0.003584	0.08	0.087500	0.080165	0.007335	0.53
w-spread	0.0555	0.0630	-0.007	-0.28	0.0153	0.0218	-0.007	-1.9
% w-spread	0.001509	0.001445	0.000064	0.14	0.000664	0.000787	-0.00012	-0.43

TABLE 6: MARKET DEPTH OF 10 STOCKS RANKED BY TRADING VOLUME: CONTINUOUS AUCTION

		#1 (00.3.6)				#2 (02.1.2)			
		-10	+10	diff	T-stat	-10	+10	diff	T-stat
Sell	Total	879,384	976,722	-97,338	-0.55	2,277,766	2,402,235	-124,000	-0.06
	Best ask	166,035	68,780	97,254	1.15	53,129.31	58,677.48	-5,548	-0.1
	% of best ask	0.0759	0.0442	0.0316	1.06	0.0271	0.0222	0.0049	0.42
	3 best ask	268,417	154,445	113,972	1.04	204,315	190,345	13,971	0.07
	% of 3 best ask	0.1938	0.1373	0.06	0.98	0.0900	0.0773	0.01	0.6
	5 best ask	333,889	227,133	106,756	0.82	362,072	338,524	23,548	0.07
	% of 5 best ask	0.2880	0.2207	0.0673	0.88	0.1562	0.1378	0.0184	0.57
	10 best ask	458,300	356,973	101,326	0.64	683,219	685,182	-1,963	0
	% of 10 best ask	0.4663	0.3701	0.0962	0.99	0.2950	0.2820	0.013	0.24
	Sell depth	324.92	387.81	-62.90	-0.37	164.78	213.23	-48.45	-0.98
% of sell depth	5.9245	6.6136	-0.6890	-1.21	6.0038	5.4463	0.5575	1.51	
Buy	Total	779,976	1,170,554	-391,000	-2.44	3,039,384	4,619,959	-1,580,000	-0.44
	Best bid	20,025.49	21,823.25	-1,798	-0.13	42,757.15	32,240.35	10,517	0.3
	% of bid ask	0.0936	0.0601	0.0336	0.87	0.0212	0.0288	-0.008	-0.73
	3 best bid	85,727.69	97,503.75	-11,776	-0.2	178,289	152,887	25,402	0.16
	% of 3 best bid	0.1723	0.1295	0.0428	0.8	0.0642	0.0686	-0.004	-0.24
	5 bid ask	145,658	169,865	-24,207	-0.27	327,109	308,548	18,561	0.06
	% of 5 bid ask	0.2437	0.1924	0.0513	0.74	0.1120	0.1091	0.0029	0.11
	10 best bid	272,083	327,557	-55,474	-0.38	702,061	751,976	-49,915	-0.07
	% of 10 best bid	0.3973	0.3254	0.0719	0.74	0.2266	0.2148	0.0118	0.3
	Buy depth	376.67	475.56	-98.90	-0.46	180.30	227.00	-46.70	-1.05
% of buy depth	7.1086	7.3533	-0.245	-0.64	6.7789	6.0379	0.741	1.79	
DEPTH	701.58	863.3776	-161.80	-0.42	345.0751	440.2261	-95.15	-1.02	

TABLE 7: ORDER CANCELLATION AND MARKET ORDERS OF 10 STOCKS RANKED BY TRADING VOLUME: CONTINUOUS AUCTION

		#1 (00.3.6)				#2 (02.1.2)			
		-10	+10	diff	T-stat	-10	+10	diff	T-stat
# of cancellation		2,208	2,222	-14.31	-0.01	6310.04	11966.94	-5,657	-0.9
Size of cancellation		5,709,756	5,708,008	1748.5	0	33,928,710	41,248,412	-7,320,000	-0.2
Cancellation time		2,724.47	2,930.16	-205.7	-1.65	1,868.58	1,680.59	187.99	0.9
Cancellation distance		171.22	205.39	-34.18	-0.36	57.8066	81.6561	-23.85	-1.57
Cancellation weight		75.48	71.62	3.8577	0.55	54.9654	46.7194	8.246	1.09
Sell # of MO		211.90	193.46	18.44	0.18	262.80	718.34	-455.50	-1.23
% of MO		0.0243	0.0235	0.0008	0.33	0.0142	0.0215	-0.007	-3.65
Size of MO		247,360	239,086.8	8,273	0.07	553,082	1,260,057	-707,000	-0.82
% of MO size		0.0604	0.0444	0.0159	0.65	0.0180	0.0304	-0.012	-3.94
Buy # of MO		304.64	284.16	20.48	0.14	354.38	796.84	-442.50	-1.07
% of MO		0.0338	0.0337	0.0001	0.05	0.0209	0.0230	-0.002	-1.05
Size of MO		231,492.4	271,107.8	-39,615	-0.9	1,184,983	2,014,856	-830,000	-0.53
% of MO size		0.0573	0.0598	-0.005	-0.62	0.0391	0.0417	-0.003	-0.72

One generally expected effect of increased transparency is decrease in volatility based on following conjecture: information asymmetry among market participants is likely to be eased up as more quote and order related information is disclosed, and uninformed traders is able to partially infer private information possessed by informed traders, which consequently will reduce market volatility. As is reported in <Table 8>, this conjecture turns out to be correct after volatility measured by average standard deviation of stock returns decreases by statistically significant margin after event #1. In case of event #2 in which transparency is not necessarily improved, volatility is reduced for 10 largest stocks in market capitalization by statistically significant margin while we find slight decrease in volatility for most actively traded stocks.

TABLE 8: VOLATILITIES: CONTINUOUS AUCTION

#1 (00.3.6)	-10	+10	F-stat	#2 (02.1.2)	전10일	후10일	F-stat
Mkt. Cap.	0.0000130	0.00000836	(1.5)*	Mkt. Cap.	0.00000432	0.00000382	(1.1)*
Volume	0.0000250	0.00002400	(1.1)*	Volume	0.0000130	0.0000170	(0.7)
Total	0.0000190	0.0000160	(1.2)*	Total	0.00000863	0.0000110	(0.8)

### Call Auctions

In this section, analysis is conducted on the effect of transparency regime changes on opening call auction. We investigate event #3 after which KSE starts to disclose projected opening price and trading volumes, and best ask and bid quotes, and event #4 when 3 best bid and ask prices and corresponding orders are known to the public in addition to the information disclosed after event #3. As in previous section, we look into liquidity, market depth, order cancellation and market order for 10 stocks ranked by market capitalization and another 10 most actively traded stocks.

Tables 9-11 reports the effect of higher transparency on 10 largest stocks based on market capitalization. We find contrasting effect of increased transparency on liquidity after event #3 and #4 reported in Table 9 in that liquidity has improved after event #3 as dollar and effective spreads shrink while event #4 causes widened spreads and deterioration of liquidity although neither of them are statistically significant.

Table 10 shows change in market depth after each event. Both buy and sell sides of market depth worsen slightly after event #3, but we find general improvement after event #4 particularly on buy side not by statistically significant margin.

As is demonstrated in Table 11, number of order cancellation and total sizes of cancelled orders increase substantially after each event by statistically significant margin, which implies that traders adjust their order submission strategies as market transparency improves.

TABLE 9: LIQUIDITY OF 10 STOCKS RANKED BY MARKET CAPITALIZATION: CALL AUCTION

	-10	# 3('02.9.30)			T-stat	-10	# 4('03.10.6)		
		+10	diff	T-stat			+10	diff	T-stat
spread	373.40	270.74	113.28	0.70	272.58	334.44	-63.26	-0.49	
%spread	0.386718	0.302744	0.083974	0.91	0.328113	0.355702	-0.02758	-0.44	
e-spread	186.70	135.37	56.64	0.70	136.29	167.22	-31.63	-0.49	
%e-spread	0.193359	0.151372	0.041987	0.91	0.164057	0.177851	-0.01379	-0.44	
w-spread	11.07325	10.39606	0.677189	0.25	10.11738	6.491297	3.626087	0.67	
%w-spread	0.012070	0.009893	0.002176	0.84	0.010287	0.007256	0.003030	0.85	

TABLE 10: MARKET DEPTH OF 10 STOCKS RANKED BY MARKET CAPITALIZATION: CALL AUCTION

		-10	# 3('02.9.30)			T-stat	-10	# 4('03.10.6)		
			+10	diff	T-stat			+10	diff	T-stat
Sell	Total	67,987	55,569	12,418	0.52	38,346	40,963	-2,618	-0.22	
	Best ask	1,907	1,778	128.33	0.08	1,563	1,747	-183	-0.15	
	% of best ask	0.0218	0.0204	0.0015	0.16	0.0408	0.0321	0.0087	0.56	
	3 best ask	8,550	3,828	4,722	0.78	6,558	4,784	1,773	0.39	
	% of 3 best ask	0.0756	0.0574	0.0182	0.60	0.1352	0.1056	0.0296	0.48	
Buy	Total	62,297	44,466	17,831	0.86	38,520	53,883	-15,364	-0.95	
	Best bid	862.29	727.35	134.93	0.43	719.64	1,581.38	-861.70	-2.19	
	% of bid ask	0.0179	0.0156	0.0023	0.55	0.0194	0.0316	-0.0120	-2.87	
	3 bid ask	2,459.36	1,674.17	785.19	1.14	1,612.18	3,681.50	-2,069	-2.18	
	% of 3 bid ask	0.0484	0.0439	0.0045	0.46	0.0476	0.0733	-0.0260	-2.28	

TABLE 11: ORDER CANCELLATION OF 10 STOCKS RANKED BY MARKET CAPITALIZATION: CALL AUCTION

	# 3('02.9.30)				#4('03.10.6)			
	-10	+10	diff	T-stat	-10	+10	diff	T-stat
Size of cancellation	28,003.3	61,597.4	-33,594	-2.66	39,920	58,478.5	-18,559	-1.46
Cancellation time	758.03	683.19	74.84	2.59	658.38	574.96	83.42	3.24
Cancellation distance	3,183.65	3,853.28	-669.6	-0.38	3,935.98	5,106.46	-1,170	-0.47
Cancellation weight	83.15	67.09	16.06	1.53	68.81	100.81	-32.00	-3.19

Tables 12-14 show the effect of increased market transparency on 10 most actively traded stocks. Table 12 reports the effect of transparency on liquidity. We cannot find any conclusive evidence on the effect of increased transparency on liquidity as both dollar and effective spreads shrink after each event although not by statistically significant margin while percentage spreads widen.

TABLE 12: LIQUIDITY OF 10 STOCKS RANKED BY TRADING VOLUME: CALL AUCTION

구분	# 3('02.9.30)				# 4('03.10.6)			
	-10	+10	diff	T-stat	-10	+10	diff	T-stat
spread	9.8876	9.0426	1.1194	0.33	7.2436	5.7143	1.3000	0.76
%spread	0.790853	1.085181	-0.29432	-1.42	1.029206	1.317781	-0.28857	-0.11
e-spread	4.61	4.15	0.60	0.35	3.62	2.86	0.65	0.76
%e-spread	0.357369	0.489545	-0.13217	-1.38	0.423653	0.530308	-0.10665	-0.07
w-spread	0.829678	0.327575	0.502103	0.89	0.304419	0.240250	0.064168	0.95
%w-spread	0.051923	0.040130	0.011792	0.45	0.043872	0.090035	-0.046163	-0.61

TABLE 13: MARKET DEPTH OF 10 STOCKS RANKED BY TRADING VOLUME: CALL AUCTION

		# 3('02.9.30)				# 4('03.10.6)			
		-10	+10	diff	T-stat	-10	+10	diff	T-stat
Sell	Total	4,525,029	4,177,976	347,053	0.06	2,078,220	2,539,888	-462,000	-0.25
	Best ask	574,171	34,116.85	540,054	0.99	776,629	86,979.44	689,650	0.96
	% of best ask	0.0299	0.0324	-0.0030	-0.16	0.0833	0.0300	0.0533	1.74
	3 best ask	628,630	135,719	492,910	0.84	1,059,831	927,487	132,344	0.11
	% of 3 best ask	0.0726	0.1056	-0.0330	-0.84	0.1951	0.1735	0.0216	0.27
Buy	Total	3,085,130	2,484,480	600,651	0.18	1,449,125	2,249,837	-801,000	-0.90
	Best bid	56,116.13	153,486	-97,371	-0.78	115,599	415,781	-300,000	-0.78
	% of bid ask	0.0295	0.0414	-0.0120	-0.40	0.0436	0.0413	0.0023	0.08
	3 bid ask	87,489	191,073	-104,000	-0.70	317,450	912,796	-595,000	-1.03
	% of 3 bid ask	0.0596	0.0759	-0.0160	-0.54	0.1133	0.1534	-0.0400	-0.57

Change in market depth are reported in Table 13. Market depth general improves on buy side after event #3, and sell side on event #4 although not by statistically significant margin as more orders are cluster around the best, and 3 best prices. Total sizes of cancelled orders increase after each event as is shown in Table 14. The time between order submission and cancellation decreases by statistically significant margin after event #3.

TABLE 14: ORDER CANCELLATION OF 10 STOCKS RANKED BY TRADING VOLUME: CALL AUCTION

구분	#3('02.9.30)				# 4('03.10.6)			
	-10	+10	diff	T-stat	-10	+10	diff	T-stat
Size of cancellation	4,084,154	6,232,665	-2,150,000	-0.34	3,176,879	4,321,942	-1,150,000	-0.43
Cancellation time	868.22	658.53	209.69	5.41	790.26	805.92	-15.65	-0.18
Cancellation distance	67.13	60.08	7.05	0.46	89.17	76.03	13.14	0.26
Cancellation weight	123.10	82.34	40.77	2.57	98.17	104.00	-5.83	-0.24

## Conclusion

Market transparency lies at the crux of security market design, and academicians, practitioners and policy makers do not share consensus view on the effect of increased market transparency. More information regarding quotes and orders has been disclosed by Korean Stock Exchange in last 5 years, which provides rare venue to test the effect of higher transparency on the quality of the market. This paper empirically studies the effects of four events aimed to improve transparency: two for market opening by single-price call auction, and two for regular trading hours operated by continuous auction. We investigate how liquidity, depth, and investors trading behavior were affected by these events. We find that market liquidity and depth were generally improved as more information on quotes and orders were disclosed but not by statistically significant margin. Smaller number of orders were cancelled and it took less time for traders to cancel orders after KSE adopted actions to improve transparency, which implies that traders have adjusted their trading patterns as the market became transparent. This study is limited to four events on transparency regime changes, and more comprehensive investigation on other events and longer data period will be likely shed more light on the issues on market transparency.

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## End Notes

Special thanks to Korea Stock Exchange for providing the data for this research.

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<sup>i</sup> Major difference between order and quote disclosure policy adopted by TSE and NYSE and that of KSE is that KSE provides most of order and quote related information free to most of the market participants while TSE and NYSE charges fee for these information and offers it to qualified market participants.

<sup>ii</sup> Experimental designs of two papers share little in common to test the effect of transparency under different trading mechanisms.

<sup>iii</sup> There have six other occasions at which KSE implemented measures for higher transparency, but due to lack of data during the periods when these changes were made, this paper focuses on four most recent events.

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<sup>iv</sup> Since information on total outstanding order is not disclosed after Event #4, it is not necessarily classified as the improvement in market transparency.

<sup>v</sup> The size of data set containing order, and quote and transaction is simply astronomical, which limit our analysis to focus on 20 stocks for each event. Boehmer, Saar and Yu (2003) uses TAQ data set for similar research for the analysis of NYSE's OpenBook. We greatly appreciate KSE for providing the data.

<sup>vi</sup> Boehmer, Saar and Yu (2003) reports significant effect on trading strategies caused by OpenBook as specialists participation in trading reduces and general traders actively use the information from OpenBook.

# **Microfinance and Financial Development Paradigms in the Globalization Era: Lessons from the Qinghai Community Development Project in China and the BASIX Project in India**

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## **Abstract**

The objective of this paper is to highlight improvements in effectiveness of MFIs that have resulted—or could result—from the use of information and communication technologies. On the basis of an analysis of the Qinghai Community Development Project (China) and the BASIX Project (India), the overall conclusion is that MFIs operating under the financial-market paradigm should find it more convenient to adopt new information and communication technologies than those, which operate under the directed-credit paradigm. In order for MFIs to reach a greater degree of self-sufficiency and to extend their scope, governments need to respond to security and regulatory concerns that arise as new technologies are adopted, and to provide—in conjunction with donors—the requisite training to MFI operators.

## **Introduction**

Current debate regarding micro-financial institutions (MFIs) focuses on two issues: the financial development paradigms behind such institutions and the impact of information technology on MFI operations. For several decades, most development specialists supported the use of directed and subsidized credit—the directed-credit paradigm (DCP)—in pursuit of a variety of development objectives, including easing of poverty, boosting of production, and stimulation of investment (Vogel & Adams, 1999). The results of many of these credit programs were not terribly laudable, however, and a new paradigm gradually emerged during the 1980s that avoided subsidized credit and focused instead on building stronger and more efficient financial markets—the financial-market paradigm (FMP).

After a decade of FMP-associated policies, it was concluded that the FMP approach to microfinance yielded disappointing results which were primarily associated with market imperfections, notably the so-called asymmetric information problem (Stiglitz & Weiss, 1981). Since market imperfections are the primary problem addressed by directed credit, there is an emerging view in favor of re-implementation of DCP-associated policies. In spite of the pertinence of the debate on the preferred financial-development paradigm, however, its resurgence has drawn attention away from the unprecedented challenges facing MFIs as a result of the ongoing process of globalization. Although new technology is critically important for reducing transaction costs of financial services so that transaction volume can grow more rapidly, the potential effects of technology on MFIs have not been addressed and have yet to be fully understood. Furthermore, since the consequences of globalization are marked by considerable ambivalence stemming from whether an MFI was designed under the DCP or the FMP, there is some sense of urgency in defining effective policies for bringing about needed reforms.

The objective of this paper is to highlight the significance of financial development policies (as derived from the aforementioned paradigms) in terms of their success in advancing the process of micro-financial reform, and to point to improvements in effectiveness of MFIs that have resulted—or could result—from a greater degree of adoption of information and communication technology (ICT). To this end, the paper addresses the following questions: How well can MFIs designed under each of the two financial development paradigms respond to ongoing global changes and challenges? Specifically, how does each embrace ICT and to what extent? Are we more likely to find information technology in DCP- or FMP-oriented MFIs? How can information technology and other globalization-related factors aid in bringing about greater financial efficiency in MFIs? What policy initiatives have been adopted or are being considered?

The paper argues that MFIs operating under the FMP are much more inclined to adopt ICT than those,

which evolve under the DCP. For instance, there are significant differences between DCP and FMP policies in terms of their consequences for the design and assimilation of information technology. In the case of the FMP, which concentrates on the efficiency of MFIs, the development of an automated system is of high priority. Under the DCP, on the other hand, the focus is on gathering of information for the evaluation of the impact of credit, with lesser importance placed on the use of technology (such as ATMs and debit cards).

In section 2 of the paper, the two paradigms will be compared and contrasted with respect to four general characteristics in which they tend to differ. This will be followed in section 3 by an overview of selected information technologies commonly used in the banking industry. Section 4 will illustrate how two existing MFIs have dealt with efficiency and outreach issues (namely, the Qinghai Community Development Project in China and the BASIX Project in India). The paper will conclude with concrete proposals for reform.

## Overview of the Evolution of Financial Development Paradigms

In this section the two financial development paradigms are compared and contrasted and their recent evolution is discussed, with particular attention to the role of the state in the financial-development process. Although the two paradigms differ in many respects, the present discussion focuses on only four of the differences between them:

- The definition of the primary problem that is the focus of the paradigm
- The developmental role assigned to financial markets
- The attitude toward users of financial services
- The design of associated information systems

As summarized in Table 1, there are fundamental differences between the two paradigms with respect to these four elements. In the case of the DCP, market imperfections are the primary problem addressed by the use of directed credit, the idea being that directed credit will overcome these imperfections and will result in loan allocations that are more efficient than those resulting from unfettered market operations. In contrast to this approach, the FMP stresses transaction costs as the dominant problem in financial markets. Policy changes that help to reduce these costs and encourage cost-reducing innovations are the major solutions advocated by FMP supporters to address this problem.

TABLE 1: DIFFERENCES BETWEEN THE DIRECTED CREDIT AND FINANCIAL MARKET PARADIGMS

	<b>Directed Credit</b>	<b>Financial Market</b>
<b>Primary problem addressed</b>	Market imperfections	High transaction costs
<b>Role of financial institutions</b>	-Aid the poor -Stimulate production -Counteract distortions -Implement plans	Provide financial intermediation
<b>Users</b>	Beneficiaries (borrowers)	Valued clients (borrowers and depositors)
<b>Characteristics of information systems</b>	-Dense -Vertical -Aimed at planners	-Less dense -Horizontal -Aimed at managers

Source: Adapted from Vogel and Adams (1999)

The role assigned to financial institutions under the two paradigms is likewise fundamentally different. Under the DCP, financial institutions are encouraged to aid the poor and to stimulate production and investment.

Under the FMP, they are expected to focus primarily on providing financial intermediation by mobilizing deposits from households and firms with surpluses and in turn allocating these funds to creditworthy borrowers.

Differences between the types of information systems which tend to be implemented in connection with the two paradigms are also substantial. Under the DCP, large amounts of information on the characteristics of borrowers and loans are typically collected for the purpose of satisfying the mandates of providers of external funds. This may include collection of additional information for credit-impact studies, mainly for use in demonstrating the extent to which the objectives of directed credit were achieved. In such systems, vertical flows of information dominate over horizontal flows. Information systems associated with the FMP, on the other hand, are used primarily for internal management, screening of clients, recovery of loaned funds, and measurement of overall performance. Under the FMP, information systems are directed more toward the internal operations of financial institutions, and are used mainly by managers of such institutions. Accordingly, there is a greater degree of horizontal circulation of information under the FMP than under the DCP.

Far from realizing their intended goals, the directed-credit programs implemented in most countries have overwhelmingly failed to help the poor, stimulate production, and offset distortions. In an effort to avoid the disappointing results experienced under the directed-credit approach to microfinance, a new class of policies emerged in the 1970s with focus on the financial intermediary function. The success of financial market policies, however, also fell far short of ambitions, at least in terms of their impact on the poor.

In recent years there have been increasing calls for a comeback of market-friendly state intervention. Even in countries where this has been tried, however, a wide gap between potential supply and *legitimate demand* persists. This gap is a reflection of two different sets of circumstances. First, because of market failure, financial markets do not necessarily clear, even if a state of equilibrium prevails; such an outcome derives largely from adverse selection and moral hazards. That is, any resulting degree of *credit rationing* implies that demand exceeds supply even at equilibrium interest rates (Stiglitz and Weiss, 1981). Second, given the obstacles faced by the market, it may clear at very high interest rates, thereby leaving many attractive opportunities untapped.

According to Claudio Gonzalez-Vega (1998), the gap between potential supply and legitimate demand cannot be narrowed (i.e., the lending frontier cannot be expanded by an outward shift in potential supply), unless additional innovations in lending and depositing technology are implemented.

Another possibility for narrowing the gap between supply and demand is to improve the efficiency of financial markets via financial restraint policies. This would entail governmental action which is intended to affect the incentive structure in an otherwise private, profit-oriented financial sector. The difference between restraint policies and the methods employed in early DCP programs is that instead of imposing economic constraints, the government would create rent opportunities that induce private agents to engage in socially beneficial actions that otherwise would not have been undertaken in competitive markets under “laissez-faire.” The government would only create the rent opportunities; which would then be pursued by profit-maximizing firms. Private information would be utilized in making allocation decisions, and the most efficient firms/banks would profit and grow the most. (Hellmann et al. 1994)

Financial-restraint intervention on the part of the government would not be sufficient to deal with some of the critical issues facing MFIs:

- Collection of complete, reliable information about clients
- Management and mitigation of risk
- Minimization of transaction costs
- Detection of errors and fraud
- Interaction with clients over a large geographical area

Various conditions, including the general absence of written records or formal credit histories and the greater heterogeneity in production and marketing conditions in microfinancial environment, combine to render the gathering and analysis of information on client creditworthiness rather costly and generally unreliable. Also, the virtual absence of insurance and hedging instruments makes it very difficult to mitigate the higher risks surrounding MFIs. Because of poor physical infrastructure and the limited capacity of public institutions, the high costs of incurring risk must be borne by both clients and intermediaries. Another problem, which is common among MFIs, is

the considerable potential for errors and fraud, given the huge numbers of financial transactions that are made and the wide area over which they take place. Finally, loan officers often have to travel long distances in order to conduct face-to-face meetings with clients.

In view of these issues, some MFIs are using new information and communication technologies to improve their operations. Use of these technologies may reduce operating costs, as they allow for introduction of a single point of entry for all the data surrounding “electronic transactions” which seamlessly links the flow of information from the villages to the branch offices, and ultimately to the main office.

## **Information Technologies Used in the Banking Industry**

In recent years, many micro initiatives have increasingly embraced the adoption of new information and communication technologies, such as smart cards, hand-helds, and modified ATMs, to expand their customer base, extend their reach into underserved areas, and lower their transaction costs. In doing so, they are strengthening their efficiency and extending the availability of microfinance.

The following is a list of some of the information technologies that have been incorporated into MFI operations or could readily be adopted by MFIs:

**a. ATM:**

An automated teller machine (ATM) can automatically process deposits, withdrawals, bank transfers, and account transfers, as well as provide ancillary services such as the sale of postage stamps. Recently, ATMs have contributed to the development of efficient networks of bank branches by supplementing or replacing existing branches.

**b. Smart Card:**

A smart card is a plastic card, which is embedded with a computer chip that stores data and allows the user to make certain kinds of transactions, such as the storage of info regarding the amount of money that has been deposited in an account for later use. The data stored on the card, which are associated with either value or information or both, are processed by the card’s computer chip and can be accessed via a reader that is part of a computer system.

**c. Firm Banking and Home Banking:**

Firm banking and home banking are a means of providing financial services by responding to requests for account balances, as well as making funds transfers and other transactions, via telecommunications lines that link a customer’s computer or a dedicated computer terminal to the bank’s computer.

**d. Call Center:**

Call centers are designed to efficiently offer telephone banking and other inbound services, and telemarketing and other outbound services.

**e. Internet and Mobile Banking:**

Internet banking enables a customer to use a personal computer or any other terminal to connect to the Internet, access a bank’s system, and perform such functions as obtaining account balances, transferring funds, and asking for advice.

The difference between Internet banking and the existing forms of firm banking and home banking lies in the fact that the customer’s terminal and the bank’s system are connected through the Internet. In mobile banking, a customer procures these services by using a mobile-phone handset equipped with a Web browser and the mobile-phone user’s Internet connection service.

**f. Debit Card:**

A debit card is a bank card that enables a consumer to pay for purchases of goods or services by having funds transferred from their bank account on demand at the time of purchase.

Of the above six technologies, the ATM is the one which has spread throughout most of the world and the one which is most convenient and accessible to MFIs. Moreover, ATMs are capable of providing audio instruction to users in their local language, thus enabling illiterate customers to access the services that they provide. Combined with a touch-screen interface, customers are able to deposit and withdraw funds without filling out a deposit slip or withdrawal form. Additionally, ATMs facilitate money transfers and can accommodate overseas remittances.

Accompanying the ATM trend, Internet technologies have now penetrated all aspects of the financial

services industry, both retail and wholesale, back office and front office, information and transactions. Although precise cost estimates for serving customers via the Internet are not available, there is no doubt that the Internet has the potential to reduce the costs of financial transactions. Miller (2000) notes that banks have analyzed the savings that are possible through telephone transactions, as compared with other means. For example, if a teller-based transaction costs, say, 150 currency units, the same transaction made at an ATM runs only about 15 currency units. This cost is reduced even further, to 10 currency units, via an Internet connection, which is less than 7 percent of the cost of a teller-based transaction.

Furthermore, use of ICTs can reinforce MFIs' integration into the financial system by linking them to formal banking systems such as commercial banks or even central banks. Thus the contributions of ICTs is not limited to the tracking of disbursements and repayments, but also in allowing for more macro-level analysis of lending patterns, cash flows, and repayments. The ICT software features online disbursements of funds, as well as transfers of data to managing banks, savings/credit account modules, and financial accounting systems. It can link the main office to branch offices, and also has built-in accounting and evaluation capabilities. Thus use of this technology is a significant timesaver for loan officers while also ensuring more accurate accounting and record keeping. Because all the requisite information can be stored on a smart card, field officers can make decisions on the spot, reducing the number of visits needed to complete a transaction.

Of course, the challenge is to find a technology that makes it possible to produce quality financial services at reasonable cost to the micro-client and in a profitable manner for the MFI (Gonzalez-Vega, 1997b). Successful implementation of the new technologies will occur only if the structure of organizational incentives is such as to promote sustainability. More importantly, achieving these potential gains is contingent on a number of factors, including provision of electronic security to accompany the technologies and acquisition of the skills, which are needed for their use.

Considering the fact that the ICT industry has expanded relatively freely of the kind of governmental regulation that has plagued other industries, it would seem that the use of technological tools is more likely to be compatible with the operation of MFIs that operate under the FMP than those with a DCP orientation, and that the former would be much better prepared to accommodate such tools. If this is indeed the case, such a trend should be borne out by field studies.

## **Lessons from the field: QCDP in China and BASIX in India**

A description of two existing microfinance initiatives, one designed under the DCP and the other designed under the FMP, is presented in this section, including a discussion of the respective approaches of these programs to the utilization of ICT.

### **1. Qinghai Community Development Project, Qinghai, China**

In the 1990s, the Australian Agency for International Development (AusAID) funded the Qinghai Microcredit Program (China), which was a component of the Qinghai Community Development Project (QCDP) that was undertaken in the years 1994–1998. Lack of access to credit had been identified as a major constraint on the improvement of household incomes and living standards, and the Qinghai Microcredit Program was aimed at enhancing the program's development impact and sustainability.

One of the aims of another component of the QCDP was to assist poor households to participate in farming and non-farming income-generation activities by improving their savings and access to credit. The scheme was a logical progression of the creation of a cash economy in a population that had traditionally had little opportunity to save. Credit provision was one of the three core components designed to increase the income-earning opportunities of poor villagers.

The project established savings groups (consisting of 4 to 7 members) in the poorest villages, thus enabling the targeted households to elevate their income and their standard of living through new income-generating activities such as the purchase of pigs and sheep or the growing of new crops. The project also made micro-credit accessible to women and minority groups. By early 1998, over 11,000 households had joined savings and credit groups, with an average loan size of RMB493 (Donaghue and Zotalis, 2002) which represents approximately \$US60.

For the sake of expanding the population served by the project, in April of 1998 the project operators and donors opted to transfer management of the revolving micro-credit fund to the Agricultural Bank of China (ABC), with a separate management board and AusAID representation to monitor performance. Ever since that time, the ABC Haidong Prefecture has run the program through a micro-credit office in Pingan City, together with 12 branches (located within business offices of the ABC) and 148 village-level credit-extension intermediaries (AusAID, 2000).

Subsequent assessments by AusAID have shown that, while the project has established the basis for a sustainable microfinance program in Qinghai (in addition to a number of other positive outcomes), much remains to be done in areas such as portfolio management, development and implementation of information systems, and client targeting to give Qinghai a realistic chance of sustainability while maintaining a focus on aiding the poor (Donaghue and Zotalis, 2002). Hendricks (2003) observes that although the QCDP was genuinely intent on establishing a sound, long-term, sustainable microfinance model, the efforts made through this project were insufficient on several fronts. Its internal monitoring and governance structure was not adequately institutionalized. Momentum built by the project during its lifetime had created neither the necessary infrastructure nor a sound enough governance base to bridge the aforementioned sustainability gap and enable it to operate at the standards which would be needed to attract an ongoing, secure infusion of external capital investment.

The evaluation of the Qinghai Project by AusAID clearly illustrates the DCP orientation of the program. The project was carefully designed as a private initiative, but donations constituted the major source of funding. To reinforce its efficiency, the Qinghai Microcredit Project did not adopt ICTs; instead, the QCDP utilized the facilities of an established financial institution (the ABC) and employed village collection agents on a commission basis. This approach was designed to reduce the cost of providing services to widely dispersed populations. Since the ABC is a state-owned bank, for the sake of program evaluation by planners it was preferable for the QCDP to establish a close relationship with the ABC.

It is important to note that in China, microfinance programs are usually required to operate in partnership with organizations that are licensed by the People's Bank of China, a requirement that creates opportunities as well as challenges (Hendricks, 2003). According to Xiaoling (2004), the Chinese government not only evaluates the performance of MFIs but also intervenes whenever reforms are needed. For example, in order to realize the targets set for poverty reduction by the year 2000, the government stepped in to provide financial support of MFIs in the form of direct government funding as well as provision of low-interest, government-subsidized loans aimed at poverty reduction and strengthening of policy-based micro-credit businesses operated jointly by governmental bodies and financial institutions (such as the ABC).

In light of the QCDP case, it can be seen that MFIs designed under DCP prefer a vertical technological approach as a result of its donor and state preference for evaluation of the extent to which the goals of programs have been achieved. ICT assimilation is indirectly realized through a formal, state-owned institution. This approach, which stems primarily from a government mandate that microfinance projects of this type be justified by donors and state agencies, rather than from a perceived need on the part of the MFI itself. This is in line with the DCP, which focuses on gathering of information for purposes of evaluation of the impact of credit and places lesser importance on the use of technologies to promote institutional efficiency.

## **2. BAXIS Project**

In contrast to the QCDP, the BASIX Project in India was designed as a completely private initiative with the idea of promoting a large number of sustainable livelihoods—including those that would benefit the rural poor and women—through the provision of financial services and technical assistance in an integrated manner. This is one of the largest and fastest-growing MFIs in India. The BASIX group works with more than 100,000 rural poor households and provides a range of financial services, including credit, savings, insurance, and technical assistance and support services. BASIX operates in 10 states in India, covering in excess of 10,000 villages, in order to provide financial services in the remotest of places, where formal financial services are otherwise unavailable. (BASIX, 2004)

BASIX has been striving to enhance its technological capabilities by, for instance, experimenting with hand-helds and smart-card technology to automate the loan process and keep track of repayments, in order to reduce

labor and cash-handling costs. BASIX's Mobile Portfolio Management System also helps to minimize accounting errors. Since it was not commercially viable to meet the credit needs of the poor by employing its initial lending methodology, BASIX came up with a novel concept called eBASIX STEMS™ (STEMS stands for “single terminal enabling multiple services”) for providing microfinance services through rural ICT kiosks that had already been set up by various state governments and corporate entities in India. Hence the mobile computing solution was developed in order to provide better service, reduce transaction costs for customers, and increase the credibility of the entire microfinance system in the eyes of rural folks.

BASIX did not stop at instituting the eBASIX STEMS™ but went on to introduce the ITSL (Information Technology Solutions for Livelihoods) component in order to provide ICT solutions that would broaden and deepen the outreach of the BASIX project, reduce transaction costs, and further enhance the accuracy of transactions and the flexibility of operations related to microfinance and livelihood-support services. According to the BASIX-ITSL introductory document (2004), the specific objectives of the ITSL project for BASIX are, among others:

- To bring professional microfinance services to the doorstep of the rural-poor in a cost-effective manner.
- To build self-sustainable MFIs by ensuring that good portfolio-management tools are available to all field staff
- To reduce transaction costs by minimizing duplication of effort and by cutting down on the necessity of travel on the part of field staff
- To build a transparent system by providing customer-account-related information on demand in the field.
- To provide technical assistance and support services by providing quick access to information through the Internet

Each of the above objectives shows that a single piece of information is more useful and often makes sense only in the context of its amalgamation with other information. Moreover, each piece of information can be used many times at no additional cost, which serves to improve productivity of MFIs by concentrating use of a great deal of information in one or at most a few persons.

The BASIX project clearly focuses on the adoption of ICT in its struggle for efficiency. The technological approach also illustrates that management-information technology is used primarily to monitor risk and improve performance, not for reporting to donors. Since the FMP concentrates on the efficiency of MFIs, development of an automated system is of high priority for them. Another attractive feature of BASIX is that, in contrast to the QCDP, it allows users to access and share information. It is encouraging that BASIX has managed to overcome or at least neutralize the difficult challenges presented by the assimilation of information technologies in a developing country such as India.

## **Policy Implications and Conclusion**

The paper has reviewed the major financial-development paradigms and their distinctive features in terms of the major problems they face, the role of financial institutions, and the users of services and information systems. Despite the refutation of the DCP in the 1970s, there have been calls for a revised version of the DCP, which focuses on financial restraint policies. In the meantime, globalization via ICT has brought new opportunities for MFIs.

The DCP and the FMP policies have significant differences in terms of their consequences for the design and assimilation of information technology. In the case of the FMP, which concentrates on the efficiency of the MFI and its interaction with a general type of customer, the development of an automated system is of high priority and is relatively easy to undertake. Under the DCP, on the other hand, the focus is on gathering of information, which is intended mainly for use by planners in evaluating the impact of credit. There is also lesser importance placed on the use of technology (such as ATMs and debit cards), and the different screening and project-supervision methods used by MFIs under DCP tend to be seen as critical factors.

Market imperfections, notably the asymmetric information problem, are said to hamper the efficiency of MFIs, regardless of the underlying paradigms on which they are based. Nevertheless, perhaps the most interesting implication of our discussion stems from the finding that MFIs diverge in their responses to ICT: The case studies presented in section 3 reveal that MFIs operating under the FMP are much more inclined to adopt ICT than are those

that evolve under the DCP. As evidenced by the BASIX project, MFIs operating under the FMP look to new technologies to lower the costs of delivering traditional payment and credit services to unbanked households. These initiatives are largely private-sector efforts. In the case of the QCDP, on the other hand, partnership with a state-owned bank was considered to be the preferred way to deliver the combined services to the targeted beneficiaries.

Based on international experience over the past twenty years, appropriate pricing of loans to cover the underlying risks is a precondition for sustainable development of micro-credit businesses. Thus far, MFIs have not offered all the services that they could, given the existing technologies and the available resources. It appears that the best choice is for MFIs to exploit the situation created by the rapid process of globalization.

The challenges that lie ahead for MFIs in the global era can be viewed in terms of further contributions that could be made by ICTs in reducing operating costs while extending outreach. As prices of technological tools such as ATMs, smart cards, and voice recognition continue to fall, more MFIs will be able to take advantage of the benefits they offer. New technologies and applications which are aimed at increasing the reach and efficiency of MFIs are constantly being developed. Improvements in automated systems will make operations more secure, increase transparency (and thus scalability), reduce the need for repetitive tasks, and provide data-mining capabilities that will allow MFIs to compete effectively and better manage their operations. ICTs are helping MFIs to finally meet the unmet demand for micro-credit throughout the developing world.

Furthermore, donors need to include technological tools as part of the project package. For donors, ICTs offer enormous opportunities for providing supervision at a distance and analytical support in real time. The state may be able to play a role in incorporating information technology into the operation of MFIs by providing Internet access in rural areas, investing in physical infrastructure and/or merely creating rent opportunities for the private sector. As asserted in section 2, the essence of this approach is that the government would only create the rent opportunities, but would leave it to private agents to engage in actions that would capture the benefits. Governmental measures should also include appropriate security and regulation.

Another possibility for governmental intervention lies in helping to underwrite the cost of acquiring skills associated with the adoption of information technology. The reprogramming of machines and the handling of the massive amounts of information that become available with the use of information technology require large numbers of workers who are skilled in these tasks, and very specialized knowledge is needed by these workers (for further discussion on the skilling effects of computers, see Krueger, 1993). In developing countries, the government and the donors should take the lead in providing the requisite training to MFI operators.

To get the best out of ICT, MFIs should focus on creating strong network support, aligning ICT with micro-business needs, turning raw data into useful information, and integrating disparate IT technologies and systems. The global trend in the banking industry calls for rapid adoption of ICT. Such a move seems to be much more difficult for MFIs designed under the DCP. Those institutions will have to shift their focus from social to financial considerations, from outreach to financial efficiency, and from pro-poor to pro-users in general. To be successful, such a transition should include appropriate pricing of loans to cover the underlying risks and adoption of stricter criteria for creditworthiness. Unless, ICT is also used to equip the poor with the ability to improve their labor returns, it goes without saying that such a maneuver is likely to hit the poor the hardest.

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# Modeling the Volatility of Stock Return: Case Study in Jakarta Stock Exchange

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## Abstract

**This study examines the stock return volatility in Jakarta Stock Exchange. We find that there is no evidence of volatility clustering in return of stock volatility when CSPI is used as proxy of the market. On the other hand, the clustering volatility is present when LQ 45 index is used as proxy of the market. However, the volatility is low persistent. It indicates that the stock market is illiquid. It is proved by the market capitalization that is much smaller compare to other ASEAN capital markets. It might be due to the long recovery of Indonesia economy, lack of law enforcement, poor performance of mutual funds, poor corporate governance of the public companies, and poor capital market education of investors.**

## Introduction

Researchers engaged in forecasting financial time series such as stock prices, inflation rates, foreign exchange rates have observed that their ability to forecast such variables varies considerably from one time period to another. For some time periods the forecast errors are relatively small, for other times they are relatively large. It indicates that the financial markets are very volatile, and sensitive to rumors, political upheavals, changes in government monetary, fiscal policies, and the like. This would suggest that the variance of forecast errors is not constant but varies from period to period, that is, there is some kind of autocorrelation in the variance of forecast errors (Gujarati, p. 437, 1995). Engle (1982) has successfully proposed the autoregressive conditional heteroscedasticity (ARCH) model to characterize the volatility of daily or lower frequency financial asset returns.

Moreover, the importance of forecasting the financial market volatility for investors/managers is to select portfolio, to analyze asset management as well as to assess the primary and derivative assets. Recently there are many approaches to model the volatility; some of them are motivated by theory, while the others are simply empirical suggestions. The most interesting of these approaches are the asymmetric or leverage volatility model, in which good news and bad news have different predictability for future volatility (Engle and Ng, 1993).

Motivated by Engle and Ng research, this paper has an objective to model stock prices/return volatility for several stocks in “Jakarta Stock Exchange”, and to study the impact of good news and bad news on the volatility. As we all know that Indonesia is one of the emerging markets in this world, and the macroeconomic condition and political events directly influence the volatility of the stock return in capital market Modeling the volatility of stock price will be useful for potential investors especially the domestic investors since the potential domestic investors is substantial.

This paper is organized as follows. In section II, the theory of volatility is described, and then few models of predicting the volatility are explained in section III. Section IV, preliminary analysis of daily returns is provided for LQ 45 index and Composite Stock Price Index (CSPI). Section V focuses on the modeling the volatility of stock returns and the impact of good news and bad news on the volatility of daily returns will be discussed in section VI. Moreover, we will investigate more whether the news impact is asymmetric. Finally, concluding remarks are presented in section VII.

## Volatility

The volatility of stock,  $\sigma$ , is a measure of our uncertainty about the returns provided by the stock. The high volatility of prices of speculative assets such as corporate stocks has often seemed puzzling to market observers. Stock prices often double or fall in half in a space of a few years, when there seems to be no concrete reason why stock prices should have changed at all. Sometimes speculative prices change dramatically in a matter of days or even hours.

Such evidence would seem to suggest that the source of market volatility is something loosely called “market psychology”, the changing public expectation, attitudes and theory about the market. The volatility of a stock price can be defined as the standard deviation of the return provided by stock in one year when the return is expressed using continuous compounding. The volatility is also the standard deviation of the natural logarithm of the stock price at the end of one year. To estimate the volatility of a stock price is usually observed at fixed intervals of time (e.g., every day, week, or month).

Suppose that the value of the market variable at the end of day  $i$  is  $S_i$ . The variable  $r_i$  is defined as the continuously compounded return during day  $i$  (between the end of day  $i - 1$  and the end of day  $i$ ):

$$r_i = \ln \frac{S_i}{S_{i-1}}$$

An unbiased estimate of the variance rate per day,  $\sigma_n^2$ , using the most recent  $m$  observations on the  $r_i$  is:

$$\sigma_n^2 = \frac{1}{m-1} \sum_{i=1}^m (r_{n-i} - \bar{r})^2$$

where  $\bar{r}$  is the mean of the  $r_i$ 's:

$$\bar{r} = \frac{1}{m} \sum_{i=1}^m r_{n-i} \quad (\text{Hull, 2000})$$

## Models of Predictable Volatility

As we mentioned above, there are several reasons that we may want to model and forecast volatility. First, we may need to analyze the risk of holding an asset or the value of an option. Second, forecast confidence intervals may be time varying, so that more accurate intervals can be obtained by modeling the variance of the errors. Third, more efficient estimators can be obtained if heteroscedasticity in the error is handled properly. ARCH models are specifically designed to model and forecast conditional variances. The variance of the dependent variable is modeled as a function of past values of the dependent variable and independent or exogenous variables.

In the standard GARCH (1,1) specification:

$$(1) \quad y_t = x_t \gamma + \varepsilon_t$$

$$(2) \quad \sigma_t^2 = \omega + \alpha \varepsilon_{t-1}^2 + \beta \sigma_{t-1}^2$$

the mean equation given in (1) is written as a function of exogenous variables with an error term. Since  $\sigma_t^2$  is the one-period ahead forecast variance based on past information, it is called the conditional variance. The conditional variance equation specified in (2) is a function of three terms:

- The mean:  $\omega$
- News about volatility from the previous period, measured as the lag of the squared residual from the mean equation:  $\varepsilon_{t-1}^2$  (the ARCH term)
- Last period's forecast variance:  $\sigma_{t-1}^2$  (the GARCH term) (E-views user's guide, 1998)

While  $\omega = \gamma \nu$ , where  $\gamma$  is weight assigned to  $\nu$ ,  $\alpha$  is the weight assigned to  $\varepsilon_{t-1}^2$ , and  $\beta$  is the weight assigned to  $\sigma_{t-1}^2$ . For stable GARCH (1,1) process we require  $\alpha + \beta < 1$ . When the parameter  $\omega$  is zero, the GARCH (1,1) reduces to EWMA (Exponentially weighted moving average). In conditions where the best fit value of  $\omega$  turns out to be negative the GARCH (1,1) model is not stable and it makes sense to switch to the EWMA model (Hull, 2000). Empirically, the family of GARCH models has been very successful. Bollerslev et al (in Engle and Ng, 1993) states that the GARCH (1,1) is preferred in most cases.

Despite the success of the ARCH and GARCH models, there are some important features of the data that cannot be captured by the models. The most interesting feature not addressed by these models is the leverage or asymmetric effect. Two models that allow for asymmetric shocks to volatility are Threshold ARCH (TARCH) introduced by Zakoian (1990) and Exponential GARCH (EGARCH) model proposed by Nelson (1991). The specification for the conditional variance of TARCH is

$$\sigma_t^2 = \omega + \alpha \varepsilon_{t-1}^2 + \gamma \varepsilon_{t-1}^2 d_{t-1} + \beta \sigma_{t-1}^2$$

where  $d_t = 1$  if  $\varepsilon_t < 0$ , and 0 otherwise.

In this model, good news ( $\varepsilon_t < 0$ ), and bad news ( $\varepsilon_t > 0$ ), have differential effects on the conditional variance; good news has an impact of  $\alpha$ , while bad news has an impact of  $\alpha + \gamma$ . If  $\gamma > 0$  we say that the leverage effect exists. If  $\gamma \neq 0$ , the news impact is asymmetric. For the EGARCH model, the specification for the conditional variance is

$$\log(\sigma_t^2) = \omega + \beta \log(\sigma_{t-1}^2) + \alpha \left| \frac{\varepsilon_{t-1}}{\sigma_{t-1}} \right| + \gamma \frac{\varepsilon_{t-1}}{\sigma_{t-1}}$$

the log of the conditional variance implies that the leverage effect is exponential, rather than quadratic, and that forecasts of the conditional variance are guaranteed to be nonnegative. The presence of leverage effects can be tested by hypothesis that  $\gamma < 0$ . The impact is asymmetric if  $\gamma \neq 0$ .

In addition to the models described above, we examine the asymmetric volatility response to news using the sign bias, the negative size bias, and the positive size bias diagnostic test proposed by Engle and Ng (1993) and Beller and Nofsinger (1998). These tests examine whether we can predict the squared standardized residuals on a constant and dummy variables that indicates when the previous period's residual negative, the large and small previous period's negative return shocks, and the large and small previous period's positive return shocks. In other words, this test examines the impact of positive and negative return shocks volatility not predicted by the model. If these variables can predict the squared standardized residual, then the variance model is misspecified.

The sign bias test considers the variable  $S_{t-1}^-$ , a dummy variable that takes a value of 1 when  $\varepsilon_{t-1}$  is negative and 0 otherwise. The negative size bias test utilizes the variable  $S_{t-1}^- \varepsilon_{t-1}$ , and the positive size bias test utilizes the variable  $S_{t-1}^+ \varepsilon_{t-1}$  where  $S_{t-1}^+$  is defined as 1 minus  $S_{t-1}^-$ . These tests are conducted jointly in an OLS regression equation of the following form:

$$z_t^2 = a + b_1(S_t^-) + b_2(S_t^- \varepsilon_{t-1}) + b_3(S_t^+ \varepsilon_{t-1}) + v_t$$

The differences of the news impact of the models have important implications for portfolio selection and asset management. Since predictable market volatility is related to market risk premium, the two models imply very different market risk premiums, and hence different risk premiums for individual stocks under a conditional version of the capital asset-pricing model. The differences also have implication for option pricing since the return volatility is a major factor in determining option prices. A significant difference in predicted volatility after the arrival of some major news leads to a significant difference in the current option price; consequently the dynamic hedging strategies would be very different (Engle and Ng, 1993).

## Preliminary Analysis of Daily Returns of LQ 45 Index and CSPI

We choose LQ 45<sup>i</sup> index and CSPI to represent the behavior of stock return in Jakarta Stock Exchange. The daily return<sup>ii</sup> of the stocks is obtained from 4th of January 2000 to 30th of November 2001 (470 samples). The daily returns are calculated by taking the first difference of the natural log of the successive daily values of the index, that is,

$$r_t = \ln P_t - \ln P_{t-1}$$

Table 1 below describes the summary statistics LQ 45 index and CSPI.

TABLE 1: SUMMARY STATISTICS OF DAILY RETURN SERIES

	<b>LQ45</b>	<b>CSPI</b>
<b>Mean</b>	-0.139318	15.50879
<b>Median</b>	-0.040000	0.739600
<b>Maximum</b>	6.250000	3138.240
<b>Minimum</b>	-9.290000	0.000000
<b>Std. Dev.</b>	1.825836	204.4373
<b>Skewness</b>	-0.319714	15.20528
<b>Kurtosis</b>	4.807032	232.3020
<b>Jarque-Bera</b>	71.80066	1045562.
<b>Probability</b>	0.0000	0.0000

The average return of LQ 45 is negative, and positive for CSPI. The distribution of LQ 45 is also negatively skewed. It implies that large negative returns occur more often than large positive return. While for the CSPI, the distribution has a positive skewness. It means CSPI has more positive returns than negative returns. Moreover, a large value of Jarque-Bera test statistics confirms the non-normality of the return series. The return volatility, proxied by squared returns, is depicted in figure 1 below. We can see that the clustering of volatility presents only for LQ45 stock return. However, CSPI return is quite stable, the spike appears only around middle of April 2001. We suspect that the ARCH effect will be captured in LQ45 index. To investigate the dynamic behavior of daily return volatility formally, we employ GARCH model in the following section.

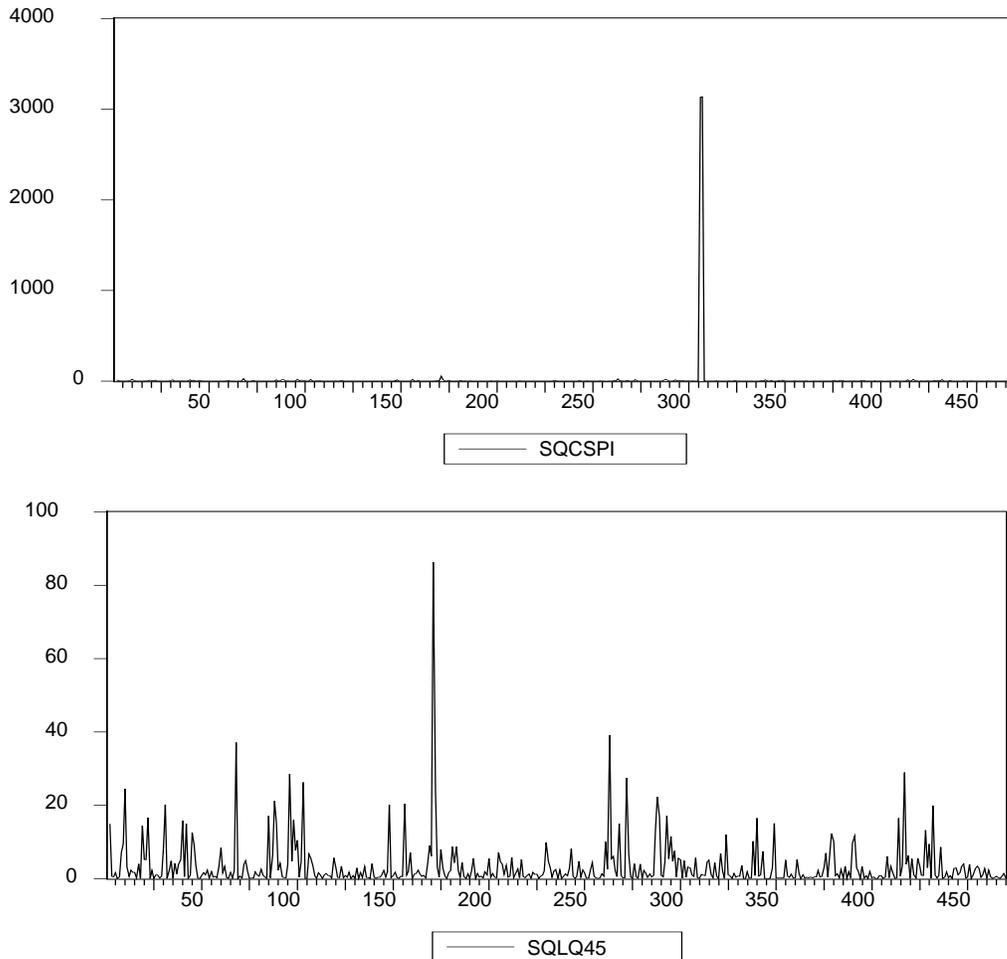


FIG. 1: RETURN VOLATILITY OF STOCKS

### The Dynamics Behavior of Daily Return Volatility

In this section, we will explore modeling the volatility of the daily stock returns in detail. As first step, univariate ARCH and GARCH models may be estimated and then compared to the more advanced specifications to determine if the enhanced models provide a better fit of the data. Where we need to select the best ARCH/GARCH model from the set of models reliably estimated, we use the Akaike Information Criterion (AIC) and Schwarz Criterion (SC) statistics. The model selection criteria is to choose the model with the lower AIC and SB test score (McKenzie and Brooks, 2000).

The results of several GARCH models are presented in the table 2 – table 5 below. The conditional distribution is not normal<sup>iii</sup>, however, the standard error is still robust since the quasi-maximum likelihood procedure in Bollerslev and Woolridge (1992) is employed. The  $Q^2$  (36) reported in the table is the Ljung-Box Portmanteau statistic to test no serial correlation up to lag 36 for the squared standardized residuals of the estimated GARCH models. The Ljung-Box statistics shows that there is no serial correlation up to lag 36 for all series. Accordingly, it indicates that the GARCH model has successfully captured all the ARCH effects.

We can notice from table 2 to table 5 that the p-values of ARCH ( $\alpha$ ) and GARCH ( $\beta$ ) terms are not significant for all estimated GARCH models<sup>iv</sup>. Moreover, as mentioned in previous paragraph, to choose the best ARCH/GARCH model, we have to select the smallest value of AIC and SC; the GARCH (1,2) model is the best model for CSPI returns. It indicates that there are no ARCH effects of CSPI returns. In other word, there is no indication of clustering volatility in CSPI returns. Figure 1 above confirmed this result.

TABLE 2: GARCH (1,1) ESTIMATES FOR RETURNS AT VARIOUS STOCKS

Index	$\omega$ (p-value)	$\alpha$ (p-value)	$\beta$ (p-value)	$\alpha + \beta$	JB (p-value)	$Q^2$ (36) (p-value)	AIC (SC)
LQ45	1.2701 (0.0058)	0.2098 (0.0110)	0.4192 (0.0094)	0.6290	43.63 (0.00)	30.146 (0.7430)	4.0138 (4.0492)
CSPI	1.6615 (0.0299)	2.6233 (0.5370)	-0.0008 (0.1209)	2.6225	477330 (0.00)	0.4116 (1.0000)	4.6886 (4.7240)

TABLE 3: GARCH (1,2) ESTIMATES FOR RETURNS AT VARIOUS STOCKS

Index	$\omega$ (p-value)	$\alpha$ (p-value)	$\beta_1$ (p-value)	$\beta_2$ (p-value)	$\alpha + \beta$	JB (p-value)	$Q^2$ (36) (p-value)	AIC (SC)
LQ45	1.2973 (0.0055)	0.2195 (0.0048)	0.3605 (0.2490)	0.0422 (0.8809)	0.6222	43.80 (0.0000)	30.140 (0.7430)	4.0180 (4.0623)
CSPI	0.9815 (0.0917)	3.8778 (0.2507)	0.0451 (0.0736)	-0.0023 (0.2820)	3.9206	212898 (0.0000)	0.8219 (1.0000)	4.6360 (4.6802)

TABLE 4: GARCH (2,1) ESTIMATES FOR RETURNS AT VARIOUS STOCKS

Index	$\omega$ (p-value)	$\alpha_1$ (p-value)	$\alpha_2$ (p-value)	$\beta_1$ (p-value)	$\alpha + \beta$	JB (p-value)	$Q^2$ (36) (p-value)	AIC (SC)
LQ45	1.1653 (0.2695)	0.2194 (0.0042)	-0.0224 (0.8825)	0.4635 (0.3071)	0.6605	43.856 (0.0000)	30.148 (0.7430)	4.0180 (4.0622)
CSPI	3.0954 (0.1056)	0.2364 (0.4118)	-0.1913 (0.4529)	0.7977 (0.0001)	0.8428	1297612 (0.0000)	0.3065 (1.0000)	5.1828 (5.2271)

TABLE 5: GARCH (2,2) ESTIMATES FOR RETURNS AT VARIOUS STOCKS

Index	$\omega$ (p-value)	$\alpha_1$ (p-value)	$\alpha_2$ (p-value)	$\beta_1$ (p-value)	$\beta_2$ (p-value)	$\alpha+\beta$	JB (p-value)	$Q^2$ (36) (p-value)	AIC (SC)
LQ45	0.9375 (0.8667)	0.2140 (0.0044)	-0.0577 (0.9502)	0.6623 (0.8795)	-0.0923 (0.9597)	1.6638	43.786 (0.0000)	30.141 (0.7430)	4.0220 (4.075)
CSPI	10.2627 (0.2811)	0.1206 (0.7522)	-0.0616 (0.7647)	0.4741 (0.4212)	-0.0028 (0.9385)	0.5303	1209623 (0.0000)	1.2537 (1.0000)	5.3142 (5.3673)

On the other hand, the ARCH ( $\alpha$ ) and GARCH ( $\beta$ ) terms are significant in model GARCH (1,1) for LQ45 index returns. In other words, LQ45 index returns volatility can be described by GARCH model successfully<sup>v</sup>. However, only ARCH ( $\alpha$ ) is significant for the rest of GARCH models estimated. Referring to the AIC and SB, the GARCH (1,1) is the best model for LQ45 returns since it has the smallest value. Nevertheless, the volatility is quite low persistent since  $\alpha + \beta$  is faraway from 1 (0.6290)<sup>vi</sup>.

This finding is different from previous study on developed capital market<sup>vii</sup>. They find that the market is volatile. Our study on CSPI and LQ 45 index reveals that there is no clustering volatility or we can say that the volatility is quite low persistent<sup>viii</sup>. It indicates that there is no significant selling and buying in the capital market; in other words, the Indonesian capital market is not liquid. The market capitalization is \$ 40.7 millions or Rp. 345.7 trillions at the end of July 2003<sup>ix</sup>. This size of market is not interesting for international investment managers to invest. Only few stocks are liquid, and most of them are sleeping stocks. Furthermore, Jakarta Stock Exchange is the smallest capital market in ASEAN (Investor, 2003).

As Indonesian Capital Market Blueprint suggest that the worsening of economic conditions due to the crisis has had an impact on the degradation in the performance of the Indonesian capital market. It brings losses to investors, i.e. they take their funds out of the Indonesian capital market. Up till now, the Indonesian capital market development in some cases is very much influenced by foreign investors<sup>x</sup>. Foreign investors dominate around 45 – 55% of the transactions. Generally, the foreign investors are the main players. The local players do not enter the market when the market is bearish, they will do so only if the foreign players buy the stocks. Recent political events, combined with the signs of economic recovery will contribute to restoring investors' confidence in the Indonesian capital market. Further, the monetary crisis has also caused a delay in the development of capital market infrastructure. The development of capital market infrastructure to meet international standards requires substantial investments. Reinebach (1998) also suggest that with the Asian flu still raging and bond spreads widened dramatically across the globe, investing in emerging markets has become a more complicated task. Furthermore, he said investors have become more aware of the differences among the various nations, and are thus better equipped to distinguish between the good and the bad. A country with the one of the worst stories to tell in Asia is Indonesia, which has been plagued by a weak currency and spreads as wide as 1,400 basis points over the Treasury.

The chairman of stock exchange also confirms this condition; “year 2000 was another tough and challenging year for Indonesian Capital Market. Some market indicators reflected the condition”. Moreover, during the year 2001, Indonesian economy was still susceptible to various domestic political event and social instability. The political escalation intensified and soon followed by a series of social responses, which was significantly affecting the performance of Indonesian Capital Market, such as the transfer of leadership from Abdurrahman Wahid to Megawati Soekarnoputri by the end of July, and the WTC tragedy.

Beside macro economic condition, other factors causing the decline in performance of the Indonesian capital market is the poor implementation of good governance in the management of companies, particularly the public companies. Lack of law instrument and law enforcement, and the minimum incentive<sup>xi</sup> cause the decreasing

of investors' confidence toward the Indonesian capital market. Furthermore, the mutual fund plays the important role as underwriter, broker and investment manager in capital market. If mutual fund does not do the job very well as underwriter, then the companies that enter the market will be the poor quality one. The chairman of Jakarta Stock Exchange also comments that not only the poor performance of mutual funds and securities issuers, but also the behavior of local investors affects the poor performance of capital market. This poor performance of local investors is due to the lack of capital market education.

Now let's turn to the news impact on volatility by using EGARCH and TARCH.

#### Asymmetric ARCH Models

As we discussed in the previous section, there are some important features of the data that cannot be captured by the models. The most interesting feature not addressed by ARCH models is the leverage or asymmetric effect. Two models that allow for asymmetric shocks to volatility are Threshold ARCH (TARCH) and Exponential GARCH (EGARCH) model. Since the ARCH effect is only captured in LQ 45 index, we investigate more the asymmetric effect on this data.

TABLE 6: EGARCH (1,1) FOR ESTIMATES NEWS IMPACT ON RETURNS VOLATILITY

Index	$\omega$ (p – value)	$\alpha$ (p – value)	$\beta$ (p – value)	$\gamma$ (p-value)	JB (p-value)	$Q^2$ (36) (p-value)
LQ 45	0.1090 (0.3942)	0.2450 (0.0185)	0.7381 (0.0000)	-0.1126 (0.1450)	30.137 (0.0000)	27.825 (0.8330)

TABLE 7: TARCH (1,1) FOR ESTIMATES NEWS IMPACT ON RETURNS VOLATILITY

Index	$\omega$ (p – value)	$\alpha$ (p – value)	$\beta$ (p – value)	$\gamma$ (p-value)	JB (p-value)	$Q^2$ (36) (p-value)
LQ 45	1.0212 (0.0183)	0.0639 (0.3198)	0.5300 (0.0011)	0.1933 (0.1749)	34.152 (0.0000)	28.480 (0.810)

Again the conditional distribution is not normal (as shown in table 6 and 7), however, the standard error is still robust since the quasi-maximum likelihood procedure in Bollerslev and Woolridge (1992) is employed. The Ljung-Box statistics shows that there is no serial correlation up to lag 36 for all series. Thus, the Asymmetric GARCH models have successfully captured all the ARCH effects. As noted in section III, that the leverage effect or asymmetry effect exists if  $\gamma$  is not equal to zero. From table 6 and 7 above reveals that there is no evidence of leverage effect for LQ 45 index at 5% significant value. Even, the ARCH effect does not exist when TARCH (1,1) model is used.

Following Engle and Ng (1993) and Nofsinger (1998), diagnostic test is conducted in our study by using the sign and size bias. The sign bias tests examines whether negative and positive innovations affect variance unaccounted for by the model. Table 8 below presents the result of diagnostic test. We are using the standardized residual of GARCH (1,1) model since it is the best-estimated model for LQ 45 index<sup>xii</sup>.

TABLE 8: STANDARDIZED RESIDUAL ANALYSIS OF GARCH (1,1)<sup>xiii</sup>

Index	Sign bias (p-value)	Negative size bias (p-value)	Positive size bias (p-value)	Joint Test (p-value)	Q-stat (36) (p-value)
LQ 45	-0.2057 (0.4366)	-0.1445 (0.4115)	-0.2358 (0.2377)	0.7629 (0.5152)	30.753 (0.716)

From the table above, we can notice that the sign bias, negative size bias, and positive as bias are not significant partially and simultaneously. It indicates that there is no asymmetry effect on volatility, i.e. the value of  $\varepsilon_{t-1}$  (regardless of the size positive or negative) does not influence current volatility. These results confirm the EGARCH (1,1) and TARCH (1,1) models above; no asymmetric effect on volatility of LQ 45 index. It means the bad news and good new have the same impact on volatility in the capital market. This finding is different from other findings for developed capital market that says the negative return shocks cause more volatility than positive ones. It may be due to the long recovery Indonesian macro economic and the microstructure of the capital market that makes the market is illiquid, and the behavior of the local investors is much influenced by the foreign investors who dominates the market

## Conclusion

There is no evidence of volatility clustering in return of stock volatility when CSPI is used as proxy of the market. On the other hand, the clustering volatility is present when LQ 45 index is used as proxy of the market. However, the volatility is low persistent. It indicates that the stock market is illiquid. It is proved by the market capitalization that is much smaller compare to other ASEAN capital markets. It might be due to the long recovery of Indonesia economy, lack of law enforcement, poor performance of mutual funds, poor corporate governance of the public companies, and poor capital market education of investors.

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## End Notes

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- <sup>i</sup> LQ 45 consists of the most 45 liquid stocks in Jakarta stock Exchange.
- <sup>ii</sup> Daily closing price
- <sup>iii</sup> The significant of Jarque-Bera statistic (JB) indicates that conditional distribution is not normal.
- <sup>iv</sup> The GARCH term ( $\beta$ ) is significant at 5% level for CSPI returns only in model GARCH (2,1).
- <sup>v</sup> The p-value is small and significant.
- <sup>vi</sup> According to Engle and Ng (1993), the model with low persistence is where  $\alpha+\beta= 0.8$ . While in this case the sum of  $\alpha$  and  $\beta$  is even less than 0.8.
- <sup>vii</sup> See Mian and Adam (2001), Beller and Nofsinger (1998), Engle and Ng (1993), Kearns and Pagan (1993). There are many researches in this area that is too many to mention.
- <sup>viii</sup> It is only for LQ 45 index, which are the stocks are already selected for the most liquid stocks in the market and it is reviewed every six months.
- <sup>ix</sup> It is around Rp. 260 trillions and Rp. 240 trillions in year 2000 and 2001 respectively. The Mutual fund will run well if the average transaction is around Rp. 1 trillion per day, whereas the mutual fund has important role in capital market.
- <sup>x</sup> Foreign investors dominated the exchange up to 1997; however, the foreign investors were still around 40% up to 1999 and dropped to around 20% and less up till first quarter 2002. The trading volume and value plunged drastically from 1999 to 2000. Thus, we can conclude that the main player in the exchange is foreign investor.
- <sup>xi</sup> Capital loss and no dividend
- <sup>xii</sup> Again, we only use LQ 45 index since it is the index that captures the ARCH effect.
- <sup>xiii</sup> OLS regression equation is used to conduct the analysis. After checking all the classical assumptions, we conclude that the estimator is BLUE (best linear unbiased estimator).

# Foreign Direct Investment, a Form of Technology Transfer Case: Manufacturing Industry in the City of Chihuahua, Mexico

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## Abstract

The purpose of this paper is to show a technology transfer path from foreign companies that arrived through a Foreign Direct Investment (FDI) to such a developing country as Mexico. The process technology gap that exists between Transnational Corporations (TNC's) and local companies was measured; the training effort both types of companies make was then measured, and the annual training investment industry in the City makes was finally estimated. The research was based on a random stratified sample of 145 companies settled down in the City of Chihuahua, the capital of a northern State of Mexico, where twin plants ("maquiladoras") have a strong presence in manufacturing industry. As a conclusion, it was possible to make a technology transfer estimate through worker training, which may be considered a positive externality from the TNC to the host country.

## Introduction

One of the biggest challenges in today's global changes is to identify the implications of the increasing presence of Transnational Corporations (TNC's) in developing countries. TNC's presence, both led and measured through the Foreign Direct Investment (FDI), causes multiple effects, not only economic effects but also cultural ones. One of the most important expressions of modern cultures is technology, which is transferred in an informal but effective way to the host country in two basic ways: employing local people and supplying local goods and services.

In the case of manufacturing industry, people the TNC's hire are trained in the process technology that is originally developed by the company and adapted to local conditions. Also, in order to increase productivity, process technology is gradually changed, improved and maintained at its latest edition level.

The problem essentially is the not very so known role and its consequent misevaluated technology transfer from the TNC to the host country, particularly through worker training, which considered an important, structured form of learning. Another important learning source, which is different from training because it is informal and less structured – thus more difficult to measure – is the accumulated experience obtained from the daily operation, also named "learning curve".

The objective of this research is to show that worker training is a way to transfer technology, even when it is not explicitly wanted, from foreign companies that arrive through an FDI to such a developing country as Mexico. In order to achieve this goal, the following specific objectives were set:

1. To measure the technological gap in the productive process between TNC's and local companies.
2. To measure the training effort and investment both TNC's and local companies make.
3. To estimate the technology transferred through the amount invested on training.

The main assumptions on which this work is based are:

- a) In order to face the increasing international competence, TNC's are impelled to improve their productivity adapting and developing technology for their productive processes.
- b) The technological change rate implies to permanently train personnel.
- c) Given that in host countries, which are generally non-industrialized, technical education is lagged (compared to industrialized countries), TNC's are the most important source of new technologies.

This work justification is basically the potential benefits for:

- Local companies, who can get aware of their technology lag, in a world where technology and its consequent competitiveness is the main way to survive and grow.

- Governments that design and implement policies and strategies on technological and economic matters.
- Academicians interested on the role of technology in the society and its link to the economic world.

## Literature Review

The concept of *technology* is taken from Perrow's definition [2]: *the activities aimed to transform inputs on products*, which corresponds to a systemic point of view towards a production unit, and is close to the concept of the variable (construct) "Process technology" used in this work. From an economic point of view, technology is the factor that allows increasing productivity while maintaining the other production, labor and capital [14] factors constant.

Regarding technology transfer the FDI makes, Cohen [2] considers this type of transfer non-conventional and an attempt to expand the dynamics of technology transfer in developing countries, from the mere diffusion of technology to the globalization of technology application. The UNCTAD [16] considers that the FDI has a key role in technology transfer, development and mastery in developing countries. On the other hand, Solow and Abramovitz [1] showed the importance of technology in the long-range economic growth of any country. Likewise, Young, Verdoor and Kaldor [14], show the contribution of technological development to the Gross Domestic Product (GDP).

Concerning the speed of technology transfer to the host country, a model that better explains an innovation diffusion rate agrees with the S-shaped curve Mansfield [7] presents. According to this diffusion model, the speed to adopt a new technology increases with its *profitability* and decreases with the *investment* amount it requires. As an interesting analogy of this model, the author says its has a lot in common with the models used by epidemiologists to represent contagious diseases spreading.

Regarding the training activity, within the field of human resource management theories, this work takes elements of the school that considers this resource the most valuable asset of an organization. We can find in this school the new point of view that considers the organization in a continuous learning process [12], like intelligent organizations, the points of view of intellectual capital development, and the Balanced Scorecard (BSC) [5] that considers learning and personnel development as the basis for all long-range successful organizations.

In order to measure the training effort made by companies, the international indicator adopted by the American Society of Training and Development (ASTD) [3] is taken into account; it expresses the annual training investment as a payroll percentage.

## Method

The investigation was based on a random stratified sample [15] made up with 145 companies settled down in the City of Chihuahua, the capital of a northern State of Mexico, where manufacturing industry has the a strong presence through twin-plant ("maquiladora") companies that employ approximately 50,000 workers.

In order to know the technological gap, it was necessary to design an instrument able to measure the different degrees of technology involved in industrial processes, which could be either "hard" or "soft". This instrument has three major components: administrative process technology, productive process technology, and technology involved in such new ways to organize work as teamwork, quality circle, etc.; due to its nature based on personnel relations, this soft technology is also called "social" technology.

On the other hand, the training activity variables were the working hours and investment involved for both company and workers, and the relative effort measured through a percentage that represents the investment on training over the total company payroll. Finally, the total annual amount TNC's invested in training was estimated as part of the manufacturing industry in the City of Chihuahua.

Table 1 shows the composition of sampled companies, where the number of workers determines the size; according to the official classification, small companies fall between 1 and 50 workers, medium companies fall between 51 and 250 workers, and large companies have more than 251 workers.

TABLE 1: COMPOSITION OF SAMPLED COMPANIES BY SIZE AND ORIGIN

<i>ORIGIN</i>	<i>SMALL</i>	<i>MEDIUM</i>	<i>LARGE</i>	<i>TOTAL</i>
LOCAL	113	14	3	<b>130</b>
FOREIGN	-	5	10	<b>15</b>
TOTAL	113	19	13	<b>145</b>

Most foreign companies are twin-plants or “maquiladoras”, which means they basically are the manufacturing unit, generally of intensive labor type, of a TNC or global company.

## Data Analysis

### a) Number of Companies and Workers in the Sample

The 145-company sample represents about 23% of a population of 624 manufacturing industry companies in the City of Chihuahua. The difference between the average number of workers in local (30) and foreign (721) companies, as shown in Table 2, basically is that local companies include small size companies, and foreign companies only include both medium and large companies.

TABLE 2: GENERAL DATA ON SAMPLED COMPANIES

<i>ORIGIN</i>	<i>NUMBER OF COMPANIES</i>	<i>AVERAGE WORKERS PER COMPANY</i>	<i>WORKERS</i>
LOCAL	130	30	3,900
FOREIGN	15	721	10,815
TOTAL	145	102	14,715

### b) Main Technological Investment per Worker

The main capital asset investment on both administrative and productive equipment was measured. The “Investment on administrative equipment per worker” variable, shown in Table 3, essentially considers the investment on computer equipment (software included) used for automation of such administrative functions as accounting, payroll control, etc., divided by the number of workers. The difference between the values for the two kinds of companies is small, mainly due to the relative low cost of Personal Computers (PCs) and their commercial software.

The “Investment on productive equipment per worker” variable considers all the investment made in machines required for the manufacturing process automation, from product design to packaging, e.g. CAD systems, material control, CNC machines, etc., divided by the number of workers. The relative low values (below 100,000 USD/worker) is because the economic structure of both kinds of companies is less capital intensive than labor intensive, like in the “maquiladoras” case.

TABLE 3: MAIN TECHNOLOGICAL INVESTMENT PER WORKER

<i>ORIGIN</i>	<i>INVESTMENT IN ADMINISTRATIVE EQUIPMENT PER WORKER (USD)</i>	<i>INVESTMENT IN PRODUCTIVE EQUIPMENT PER WORKER (USD)</i>
LOCAL	813.8	5,531
FOREIGN	935.1	11,388

### c) Process Technological Level

The four variables in Table 4 are index-constructed from the Likert scales of the questionnaire, expressed on a percentage basis, i.e. the measuring level of these variables is ordinal [6].

The administrative technology percentage refers to the automation level of the administrative process. In the case of the foreign companies, the intensive use of Information Technology (IT) can be noted, with an 85% automation, compared to local companies with 39%.

Productive technology measures the automation level of the manufacturing process, which, in economics terms, is a point in the continuum between labor-intensive process and capital-intensive process [8]. In the case of this sample, we can see relative low values (27.5 and 61), which means that the process in both types of companies is rather labor-intensive. These values are consistent with the low relative labor cost in the country, which is approximately two USD / hour in the northern states.

Organizational technology refers to new technologies based on work organization, where motivated, trained human resources play a central role; such technologies are also called “soft” or “social” [11], and they include teamwork, quality circle, lean manufacturing and continuous improvement techniques.

The “Total process technology” variable is made up with the three variables above, calculating and averaging the value between hard and soft technologies. A significant difference ( $t = 8.46$ ,  $p < 0.01$ ) can be noted between process technology in both local and foreign companies.

TABLE 4: MAJOR COMPONENTS OF PROCESS TECHNOLOGICAL LEVEL BY COMPANY ORIGIN

<i>ORIGIN</i>	<i>ADMINISTRATIVE TECHNOLOGY (%)</i>	<i>PRODUCTIVE TECHNOLOGY (%)</i>	<i>ORGANIZATIONAL TECHNOLOGY (%)</i>	<i>TOTAL PROCESS TECHNOLOGY (%)</i>
LOCAL	39.1	27.5	27.2	<b>30.2</b>
FOREIGN	85.1	61.0	66.9	<b>70.0</b>

Fig. 1 shows a boxplot chart with the “Total process technology” (GTEC\_TOT) variable values for both types of companies, where “nac” is for local companies and “Extr” is for foreign companies. A strong difference can be observed in the manufacturing process technology range for both local and foreign companies.

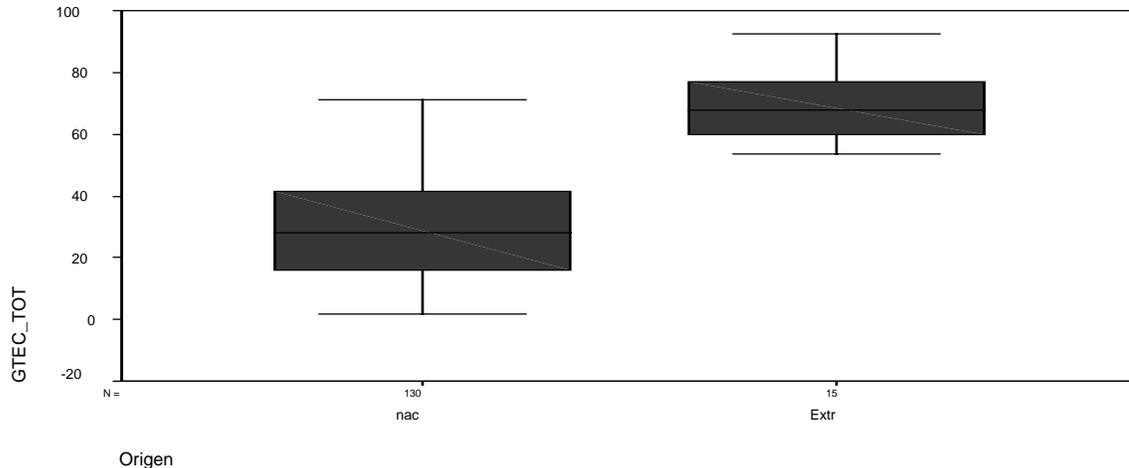


FIG. 1: CHART OF THE “TOTAL PROCESS TECHNOLOGY” VARIABLE BY ORIGIN OF COMPANY

**d) The Companies’ Training Efforts**

Table 5 shows a significant difference in the “Training Investment per worker” variable between the two types of companies ( $t = 2.025$ ,  $p < 0.05$ ), approximately twice as higher for foreign companies than for local companies [9]. These figures can be compared to the average value of this variable in the United States in 1999 [13] – 1,040 USD – which is five to ten times as higher as for foreign and local companies, respectively. On the other hand, these figures demonstrate the awareness of foreign companies on the importance of training, against local companies.

Likewise, we can note that the difference in training investment as a payroll percentage [4] is significant ( $t = 2.08$ ,  $p < 0.05$ ). These values can be compared to the 2.5% found for average American companies in 1996 [10], and the 5% found for American World-Class companies [13].

TABLE 5: ANNUAL TRAINING ACTIVITY BY ORIGIN OF COMPANY

<i>ORIGIN</i>	<i>HOURS PER WORKER</i>	<i>INVESTMENT PER WORKER (USD)</i>	<i>INVESTMENT IN TRAINING AS A PAYROLL PERCENTAGE</i>
LOCAL	29.8	104	1.4
FOREIGN	48.4	209	2.6

Table 6 shows the annual training investment by company, the total investment made by the sampled companies (145), and an estimate of total investment companies in the city industry (624) made. We can observe that foreign companies invest approximately 9 million USD to train local workers every year. This figure is a good estimation of the amount of technology TNC's transferred to the host country through training, mostly in two ways:

- a) Trained personnel are in permanent contact with their industrial and social context; this way, part of the knowledge is diffused to the local environment.
- b) Given that, sooner or later, trained personnel leaves the foreign company and can work for a local company; knowledge is then transferred.

TABLE 6: ANNUAL TRAINING INVESTMENT BY ORIGIN OF COMPANY

<i>ORIGIN</i>	<i>INVESTMENT BY COMPANY (THOUSANDS OF USD)</i>	<i>TOTAL INVESTMENT BY THE SAMPLED COMPANIES (THOUSANDS OF USD)</i>	<i>ESTIMATION OF INVESTMENT BY INDUSTRIES IN THE CITY (THOUSANDS OF USD)</i>
LOCAL	3.12	405	1,763
FOREIGN	150.69	2,260	8,738
TOTAL		2,665	10,501

Fig. 2 shows a bar chart with values of the estimated annual investment both local and foreign companies in the City made.

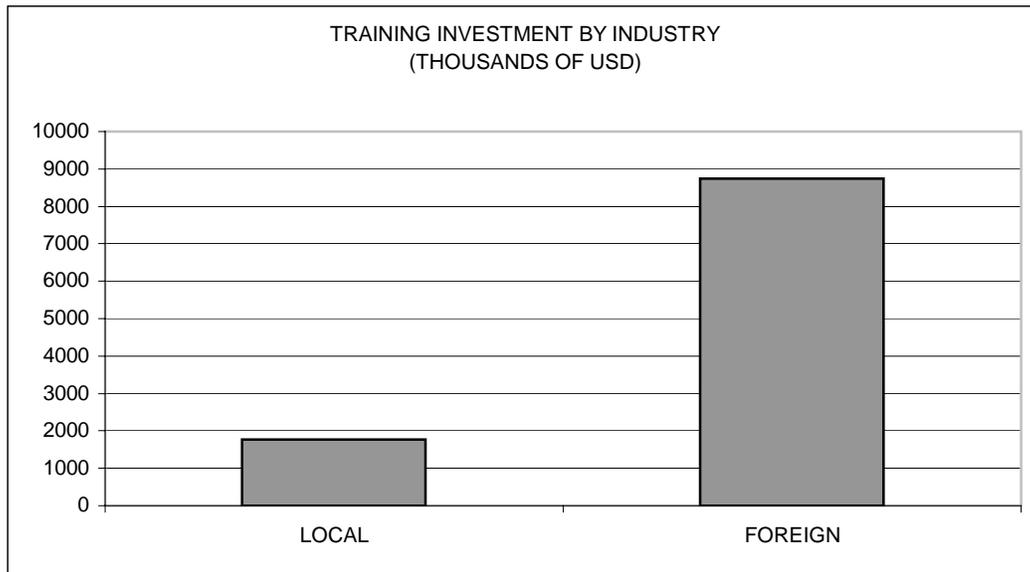


FIG. 2: ESTIMATION OF TRAINING INVESTMENT MADE BY INDUSTRY IN THE CITY

## Conclusions

The results above, which show the figures of the major variables in the technological and training process, allow us to come to the following conclusions:

1. Foreign companies that come from industrialized countries have a significant superiority in process technology over local companies in developing host countries. This finding was expected; however, the interesting point in this work is the measurement of the technological gap.
2. The efforts foreign companies make to train local workers and teach them the company's technology, is considerably high and comparable to those carried out in the country or origin.
3. Given that, sooner or later, local workers leave the foreign company and the technological knowledge they learned through training is transferred and diffused through the host country. The estimated annual amount the industry of the city invests in training that allows this transfer is over 9 million USD.

As general conclusion, we may say that FDI is an important, but not so known, way to transfer technology; however, this work showed that it was possible to make a conservative technology transfer estimate by tracing the path of training, which can be seen as a positive externality from TNC's to the host country.

Finally considering this conclusions, a recommendation could be: given the strong potential of technology transfer from the FDI, local governments in developing countries should consider this for investment regulations related to the design of technological strategies and policies in a general way, and to training support in a particular way.

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# Foreign Direct Investment, Fiscal Competition & Currency Policy The Case of Slovakia

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## Abstract

The main challenge the Slovak Republic is facing now, as a rather small new comer in the European Union, is to catch up as soon as possible the welfare standards of the Union. Recent studies ( World Bank, 2004) concluded that this country successfully encountered lot of reforms during the last period, putting it among the best performers of the post-transition countries. Two main reforms characterised the Slovak specificity of the last years: the unified flat "19%" fiscal reform - for individuals, corporate and value added - and other measures for attracting foreign direct investment. As a result, Slovakia is e.g. the first car assembler per inhabitant in the world. Its growth rate is above the average of the new EU member states. Such evolution is not without threats. Some partners of Slovakia seriously consider the risk of delocalisation in their production activity due to tax competition and state aid, not only as a consequence of globalisation but also as an effect of the European Unification. The debate on competitive corporate taxation is dominated by the following idea: if the interest in small economies indeed lies in the development of tax competition and "non cooperation", although the extra FDI thereby attracted seem marginal, the general interest does seem to be minimum coordination between Member States of the Union. Since the drop in Corporate Taxation rates has limited economic effects, in particular on the attraction of FDI flows, stress must be put on its fiscal and monetary consequences, in particular as regards the Central and Eastern Europe (CEE), which must respect their commitment to budgetary discipline, whilst at the same time funding their bringing up to standard of infrastructures and provision for education and training.

## Competing for FDI

Foreign direct investment is the category of international investment in which an enterprise resident in one country (the direct investor) acquires an interest of at least 10% in an enterprise resident in another country (the direct investment enterprise). Subsequent transactions between affiliated enterprises are also direct investment transactions. FDI has been accorded a central role in the post-communist economic transformation of Central and Eastern Europe. After the collapse of state socialism in Central and Eastern Europe (CEE), economists and multilateral institutions suggested that a successful 'transition' from the centrally planned economy to a market-based system could be facilitated by large inflows of FDI, considered as an engine for the development, a vehicle for the economic modernisation and a driving force for the productivity development in CEE (Petr Pavlínek, 2004).

Various factors are reinforcing the traditional impulses for foreign direct investment, such as a better access to natural resources, markets, and low-cost labour. With the rise of globalisation, technological progress in information and communication technologies, together with improved logistics, allow for production to be close to markets while taking advantage of the specific characteristic of individual production locations.

According to a recent econometric study (Rui Albuquerque, Norman Loayza & Luis Servén, 2002), global factors are drivers of foreign direct investment. The increased exposure of countries to the globalisation has been associated with increased flows of foreign direct investment into emerging market economies. While these findings constitute evidence on the relevance of push factors for foreign direct investment, pull factors, more locally related, like growth in local productivity, trade openness, financial depth, low government burden, and macroeconomic stability are also important, even though these latest have become less important for the last years in accounting for variation in foreign direct investment. This should not be seen as an endorsement for a "hands off" attitude of local governments towards foreign investment. Much of the integration of capital markets comes from policy initiatives

taken from within each country. In many emerging economies, the defence of existing reforms and the pursuit of further liberalisation policies represent a challenge for local policy makers that cannot be put off.

TABLE 1: POTENTIAL POSITIVE EFFECTS OF FDI IN HOST COUNTRIES

<b>Level</b>	<b>Opportunities</b>
<b>Enterprise</b>	continued and expanded production increased labour productivity access to investment capital access to worldwide sale and distribution networks transfer of Western technology and know-how improved competitiveness increased R&D
<b>Local economy</b>	consolidation and creation of jobs increased wages growth or real income increased tax base increased exports labour training provision of social services to local communities increased opportunities for local companies to supply foreign-owned companies

Source: Petr Pavlínek, 2004, *revisited*

Attracting FDI becomes a focal point of competition among developed and developing countries. This competition is maintained even when countries are pursuing economic integration at another level, such as the EU accession. While some countries are lowering standards for attracting FDI in a "race to the bottom," others praise FDI for raising standards and welfare in recipient countries.

Different methods are used by policymakers to attract FDI. Some countries rely on targeted financial incentives, such as tax concessions, cash grants and specific subsidies. Others have chosen a broader approach that focuses on improving their domestic infrastructure and local skills base to meet the demands and expectations of foreign investors or to improve the general business climate of a country by decreasing administrative barriers and red tape. Many governments have created state agencies to help investors through this administrative paperwork, as well as to promote FDI broadly (in Slovakia: SARIO) or entered into international governing arrangements to increase their attractiveness as investment locations.

TABLE 2: KEY FDI INCENTIVES

<b>Type of Incentive</b>	<b>Purpose</b>	<b>Elements</b>
<b>Fiscal</b>	to reduce the tax burden on the investor	tax credit, tax relief, tax rebate, exemption from customs duty, reduction of tax base, VAT exemption, accelerated depreciation, reinvestment allowance, loss accrual
<b>Financial</b>	to provide direct financial assistance	Soft loans, grants, sovereign guarantee on investment credits, export guarantee, insurance and credit, subsidised funding for various purposes
<b>Operational</b>	to increase the profitability/reduce the costs of the investment through non-financial means	preferential government contracts, real estate provided below market price, promotion of institutional investment, SME development programmes, customs free areas, special economic zones, industrial parks

Source: compiled by Magdolna Sass, 2003

To attract large FDI inflows, the CEE countries needed to develop appropriate institutional and policy frameworks to position themselves within flows of global capital. In this region, FDI typically results in rapid and profound restructuring of foreign invested enterprises, including organizational restructuring, technology transfer, worker training, the transfer of Western management structures and practices, and new production strategies and

organisation. Such influxes of production capital and transfers of Western factory regimes and technology resulted in rapidly increased quality and competitiveness of produced goods, productivity gains and expanding production and sales by foreign investing enterprises, both domestically and abroad.

Now that the novelty of EU membership is fading, corporate investors are anxious to see just how these markets perform given the challenges that the EU accession process poses. Among the leading perceived threats to the competitiveness of the ten new EU members states (NMS), global investors cited poor infrastructure, corruption, and the erosion of low-cost advantage. While EU reforms are expected to bring infrastructure investments and regulatory stability within the EU single market, the economic and social costs of adjustment remain high. EU law will likely add a new layer of bureaucracy and may undermine new members' relative FDI advantages in areas such as favourable tax and labour conditions, which could push investors toward neighbour countries, i.e. Romania, Bulgaria, the Balkans and Ukraine.

## **The Other Side of FDI**

Other aspects can impair the positive features of FDI, implying a more evenly balanced view about the benefits and risks of FDI. Four arguments suggest that the role of FDI in financing current account imbalances appears to be less beneficial than generally assumed.

- First, much of recent FDI flows were related to privatization activities. The supply of privatization opportunities is likely to shrink over the next years. The completion of privatisation programs as a risk to the competitiveness of these new EU countries is seen as a potential risk for FDI development in NMS. Nonetheless, the end of privatizations in the Czech Republic and Slovakia in part explain the region's FDI decline last year. This will then result either in reduced total private capital flows or in a changing composition towards more volatile components. Furthermore, by softening the balance of payments constraints, large privatization-related inflows can also exert a lastly negative influence. Inflows related to the privatization of firms (e.g. utilities) that do not subsequently raise the export potential can serve as a cushion against the pressure for urgent but politically difficult reforms. The upshot could be increased external vulnerabilities.
- Second, while the components of the machinery that is associated with FDI are relatively stable, FDI as such is no more than a capital inflow that, considered in economic terms, extends the liabilities of the host country's balance sheet. Hedging operations provide possibilities to withdraw an investment should the economy enter a time of downwards. These options are limited to unstable emerging economies, as functioning capital markets are needed to undertake the necessary hedging operations. While relatively well-developed financial markets are surely an asset in attracting foreign capital in the first place, they also set the stage for an easier repatriation of FDI. Likewise, extensive inter-company lending, which is usually made according to short-term financial considerations, can induce a high degree of volatility.
- Third, drawing on data for US firms, there is evidence that earnings repatriations tend to show a rather stable pattern if economic conditions worsen for the group as a whole. Not only does this translate into a potentially highly volatile pattern of reinvested earnings, but stable earnings repatriations may also aggravate a situation already characterized by private capital outflows.
- Fourth, due to the fact that multinational enterprises can trade goods and services internally at artificially increased prices, capital can be reallocated from host countries to other parts of the corporate network in an effort to raise profits or reduce taxes.

TABLE 3: POTENTIAL NEGATIVE EFFECTS OF FDI IN HOST COUNTRIES

Level	Threats
<i>Enterprise</i>	labour shedding disinvestment and downsizing of production transfer of R&D abroad
<i>Local economy</i>	local dependency on foreign capital external control of local economies attracting skilled and semi-skilled workers from local companies local firms unable to compete due to a lack of level playing field break in the development of new indigenous enterprises deskilling regional specialisation in low-skilled, labour-intensive production development of 'dual economy' branch plant syndrome instability of Western investment

Source: Petr Pavlínek, 2004, *revisited*

FDI is not risk-free in terms of the balance of payments, but so far it has been the least volatile of all private capital flows. As long as emerging economies are unable to borrow long-term in their own currency, FDI seems at present to be the best option. Even though the positive effects as a provider of capital and a stimulant of growth may depend on specific circumstances and not accrue with every long-term foreign investment, the empirical studies either indicate that it outperforms other types of flows in these regards or at least does no worse. Thus, while FDI might not be a panacea and there is every reason to monitor developments in the capital account closely regardless of the types of inflows, FDI does represent the least risky type of capital inflows.

### Current Situation of FDI in Slovakia

Slovakia has made good progress in improving its business environment and competitiveness in attracting foreign direct investment since 1999. The cumulative level of foreign direct investments has risen sharply from USD 2 billion in 1999 to approximately USD 9.5 billion at the end of 2002. In 1999, the Slovak government established a three-pillar strategy to attract foreign direct investments, which consisted of new legislation to improve tax incentives, the creation of a "one-stop shop" to assist investors and encouragement to cities to develop industrial parks. The foreign investment tax credit law came into effect in January 2001 and was later modified to conform to the EU laws on state aid.

TABLE 4: FLOWS OF INWARD FDI (\$ BILLION)

	Annual average 1985-1995	1999	2000	2001	2002
Czech Republic	0.54	6.324	4.595	5.639	9.319
Estonia	0.06	0.305	0.398	0.542	0.307
Hungary	1.035	1.944	1.957	2.440	0.854
Latvia	0.042	0.348	0.407	0.164	0.396
Lithuania	0.013	0.486	0.379	0.446	0.732
Poland	0.768	7.270	10.00	5.713	4.119
Slovakia	0.08	0.356	2.075	1.579	4.012
Slovenia	0.055	0.181	0.181	0.503	1.865
CEEC10	2.713	19.074	21.992	18.996	23.189

Source: UNCTAD, World Investment Report 2003

In one of the biggest prospective green-field investments in Slovak history, the French PSA Peugeot-Citroen carmaker in January 2003 selected the Slovak city of Trnava as the site of a USD 750 million factory,

expected to come on line in 2005 or 2006. The other big green-field investment in Slovakia in this year is decision about the investment from South-Korean colossus Hyundai/Kia that plans to build its new plant in Northern Slovakia.

FDI in Slovakia has increased dramatically. Cumulative FDI has quintupled since the beginning of 2000 to USD 11.2 billion (June 2004). As of 2003, Slovakia has enjoyed per capita FDI of approximately \$2,080. Slovakia is becoming an increasingly attractive place for FDI, particularly for manufactures looking to set up or expand their operations in Central Europe and the EU at large. FDI in Slovakia totalled Sk23.376 billion (€590 million) in the first nine months of 2004, with Sk18.343 billion (€460 million) invested in the corporate sector and the rest in banks, wrote the central bank in its monetary review. From January to September, Sk12.637 billion (€320 million) was invested in industrial production and Sk5.604 billion (€140 million) into financial mediation. Retail and wholesale sectors, motor vehicle repair, motorcycles and consumer goods absorbed Sk4.634 billion (€120 million) of investment.

As the inflow of foreign direct investment (FDI) to Slovakia has started to gain importance, it is therefore important to understand the impact of FDI on the economy of Slovakia, primarily on the real sector. The Slovak economy grew 4.2% in 2003, the strongest growth in Central Europe, and is predicted to expand by more than 5% in 2004. Headline consumer price inflation dropped from 26% in 1993 to an average rate of 3.3% in 2002 but rose to 8.5% in 2003 as a result of increases in the subsidized prices of utilities ahead of Slovakia's 2004 entry into the European Union. Inflation is projected to be 7.5% in 2004, dropping to 3% in 2005. The Slovak economy has been growing faster than the economies of Hungary and the Czech Republic. In the first quarter of this year, GDP in real prices grew by 1.4 percentage points compared to the same period in 2003 and by 0.8 of a percentage point compared to the last three months of 2003.

The first quarter data shows Hungary and Austria as the biggest investors, these countries rank sixth and third, respectively, in the cumulative stock of FDI in Slovakia, behind Germany and the Netherlands, while over 77 percent of the investments flew to the Bratislava region what correlates with overall tendencies. Hungary's prime FDI donor role in the first quarter was driven by the MOL concern's purchase of Slovnaft shares (MOL's Slovak unit) from minority investors, while the investment of a banking group based in Austria took second place.

The Slovak Investment and Trade Development Agency (SARIO) announce 40 projects in the pipeline, chiefly in the field of the automotive industry. In the event of their successful implementation, new investments of €2 billion could arrive in Slovakia creating 6,000 to 10,000 new jobs.

Though the investments from the new projects would flow mostly to northern Slovakia, specifically to Žilina, Martin, and Banská Bystrica, the core of the FDI continue to target the Bratislava region, which leaves the problem of a widening gap between the wealthier west and the underfed east unresolved.

According to Slovak economic analysts Bratislava is the natural choice for foreign investors, given Bratislava and the surrounding region's developed infrastructure and proximity to core western European markets. There is little chance that the Bratislava region will lose its position as the prime destination for FDI anytime soon. Its lead, however, may gradually narrow, the tight labour market and rising wage costs in Bratislava will probably become the crucial motivation for foreign investors to explore other regions of the country as well.

If the Government accomplishes its plans for highway construction, the chances for investment flowing into those regions will increase. To a certain extent, the government's intentions to provide state support in the form of investment stimuli for regions with a high unemployment rate could present an opportunity for the eastern regions.

## **Corporate Income Taxation and FDI**

The opportunity of a low or declining level of corporate taxation (CT) in the New Member States (NMS) formed the main debate. Indeed, the latest enlargement has brought into the Union countries whose CT rates are clearly below the European average. For the States of the former EU15, the principal issue is the safeguarding of their tax revenues.

<b>Arguments in Favour of Tax Competition</b>	<b>Arguments in Favour of Tax Coordination</b>
<ul style="list-style-type: none"> <li>- The diversity of the collective preferences relating to the weight of the public sector in the economy and the distribution of the tax burden between its various components (CT, income tax, indirect taxation), with conceptions sometimes far removed from those defended by France or Germany for example, necessarily implies rates which differ from one country to another;</li> <li>- This is a margin for manoeuvre enabling States to attract and, <i>in fine</i>, “to keep in Europe” FDI which could otherwise be located somewhere else in the world;</li> <li>- Relatively low CT rates in the NMS help to compensate for low infrastructure levels.</li> </ul>	<ul style="list-style-type: none"> <li>- Declining CT rates appear hardly compatible with deteriorating public finances, six NMS currently being the subject of an excessive deficit procedure on the part of the Commission;</li> <li>- Specific tools exist in order to bring infrastructures up to standard, i.e. the structural and cohesion funds;</li> <li>- The CT rate only proves a determining factor in the choice of location for a small number of FDI; and the CEE countries comparative advantages appear “to be sufficient”;</li> <li>- Consequently, tax competition is of particular benefit to multinationals seeking tax optimisation and the transfer of their tax base</li> </ul>

Source: Ph. Brunel (2005)

The Slovak government opened doors for foreign investors and introduced competitive incentives schemes, including a 19% flat income tax for corporations and individuals.

Slovakia’s ambitious tax reforms, much welcomed by the business community, have attracted severe criticism from some western Europe Governments (France, supported by Germany and Sweden), who suggested that the new EU member states that have their taxes under the European average should receive less financial aid from the European Union if they allow their corporate taxes to fall below the EU average.

This outspoken statement provoked a wave of protest, both from the established member states and the new member countries. The architects of the Slovak tax reforms stressed that the country is merely adopting necessary reforms. Europe needs a larger market, more flexibility and better conditions for firms to develop.

The Slovak authorities further consider that the proposal to cut funding for the new members is groundless, because these countries are contributing to the collective European budget, which directly provides the structural funds, just as much as the original 15 member states.

They also argued that French proposal unfairly singles out new members, when some of the formative countries are also registering lower taxes than the EU average, yet Ireland, Great Britain, Portugal, Spain and Greece are eligible for drawing money from the structural funds. Furthermore, neither the accession agreement nor any other document pertaining to the new EU members, assumes any limitations on accessing structural funding, the ministry claims. To add support to Slovakia's stance, the European Commission also refuted the French proposals, saying that it rejected any links between tax rates and structural funds.

This point is fundamental as regards the attractiveness of new member States (NMS) for FDI. The redistribution of EU funds makes the accession countries more attractive as a location of FDI. The redirection of Structural and Cohesion funds from current to new Europe members according to some authors will effect the inflow of FDI in UK, the Netherlands, Belgium-Luxemburg and France in favor of Austria, Hungary, Czech Republic, Slovakia and Slovenia (Breuss, F., Egger, P. and Pfaffermayr, 2004) demonstrate the reallocation of structural funds foreseen in the Agenda 2000 and successive revisions, leads the financial perspectives for an enlarged Union to a redistribution of FDI by approximately 4-8 percent points in the 2004 scenario and up to 7-10 points percent in the 2007 scenario.

It is likely that a common policy on direct taxes would require opening the accession treaty, which has to be approved by all member countries. So far, almost all central European countries have refused such initiatives. The only exemption was the Czech Republic, which has a 28 percent income tax rate.

Corporate income tax rates have generally been reduced over the last decade, both in old and in new member countries. With more aggressive moves in recent years among the new member countries, statutory CIT rates are now significantly lower in the EU-8 than in the EU15, fuelling concerns among some old member states about unfair tax competition and renewed calls for harmonization of corporate taxes. However, these concerns should be put in proper perspective by comparing the overall cost of doing business in different countries.

- First, one should look at effective corporate income tax rates, which take into account differences in tax bases (arising from differences in depreciation allowances, treatment of losses, and inventory valuation methods).

- Second, one should assess the overall tax burden facing firms in different countries, including in particular taxes on labour (which are relatively high in the new EU member states) but also indirect taxes on goods.
- Third, production and distribution costs should be evaluated, in particular wages and productivity but also infrastructure and market access.
- Fourth, and perhaps most important, investment decisions whether by domestic or foreign investors are likely to depend more on the overall investment climate, including political/social/macroeconomic stability, the rule of law, business regulations, financial market development, etc. With generally higher returns to capital in the new member countries, and still limited labour market mobility from new to old member states, one would indeed expect capital to flow to these countries as part of the natural convergence process.

## Monetary and Exchange Rate Policies

With EU accession in May 2004, the international agencies' ratings generally improved, which led to a revaluation of the NMS's share in the international investors' portfolios. Next, the yields offered in the region are attractive, particularly in Hungary, Poland and Slovakia. Lastly, the CEE territories' competitiveness in the production of manufactured goods as well as certain services continues to stimulate FDI. As a consequence of those concomitant factors, the CEE countries face a nominal appreciation of their currencies vis-à-vis the Euro.

Some economists (Patrick Artus, 2004; Marc Lanteri, 2005) wonder whether the present appreciation in the CEE currencies ought not to prompt a revision of the central banks' inflation targets, which are considered too low, in particular in the Central European countries. Companies can draw two lessons from these analyses:

- The central banks' inflation targets appear ambitious and in 2005 inflation might be in the region of the current market consensus, which is slightly higher;
- Nominal appreciation of the currencies might become unsustainable.

The study of Patrick Artus (op. cit.) concludes with the need to raise the inflation objectives, the quantified result depends mainly on the assumptions made over the number of years necessary for prices and income levels to converge to the EU average level. In this study, the central banks' inflation targets look all the lower as the expected duration of convergence corresponds more to the bottom of the range

For the central banks, the capital inflows complicate the adjustment of their monetary policy. On the one hand, they seek to support the convergence of inflation towards euro zone levels, which implies a somewhat restrictive monetary policy and which might possibly also have a negative impact on growth and/or employment. On the other hand, high interest rates attract capital inflows and reinforce currencies; the price convergence caused by nominal appreciation of the exchange rates and inflation then aggregates, with a negative impact on the competitiveness of territories. Over the last few months, the following "anomaly" has been observed: actual and nominal exchange rates are appreciating simultaneously in Central Europe. Although the first phenomenon may be considered as "normal" in the context of a convergence of price and productivity levels, a nominal depreciation in the currencies should, on the other hand, accompany it, since the CEE, whose economic structure converges towards those of the high income economies of the EU, record higher inflation rates as well as budgetary and/or current account imbalances. Indeed, if the assumption is made that the relative PPPs hold firm, a somewhat fragile assumption, the variation in the real exchange rate ( $q$ ) equals the nominal exchange rate variation ( $e$ ) multiplied by the price ratio evolution between the two countries. If inflation is higher in the first country (as for the CEEC), then it "would be necessary" for " $e$ " to appreciate (nominal depreciation), but in a smaller proportion than the inflation differential, in order to allow the domestic price (real appreciation of the currency) the convergence to occur, as productivity and wages rise. Over the recent period, this situation occurred in Poland, Slovakia, Hungary and Romania.

What are the possible evolutions and the associated risks? According to Marc Lanteri (op. cit.), inflation could be slightly higher than the central banks' targets; this means, "all things being equal", that the central banks which have chosen to manage their exchange rate (the Czech Republic, Slovakia and Slovenia for example) should continue to act in order to limit a too strong appreciation (nominal and actual) of their currency.

Exports may suffer temporarily from an appreciation in exchange rates, but trade deficits are related above all to the intermediate position, which these countries occupy in the European division of labour, with trade balances improving in the long run. In fact, their evolution is relatively independent of the exchange rates and seems to be influenced more by sectoral logic and/or industrial specialisation.

An exogenous shock or a loss of confidence could cause a sudden reverse flow of that part of the capital inflows which obeys a strictly financial logic and a marked correction of the currency. However, in Poland, the recent appreciation may be partly justified by the expected improvement in public finances and a high growth rate. In the same way, in Romania, the acceleration in productivity gains now seems likely to compensate for the true appreciation of the exchange rate, and the budgetary efforts made also form a support for the lei. The risk of a correction exists above all in Hungary, where inflation remains high, twin deficits progress and the forint is close to the lower limit of its fluctuation margins. This context has just led Fitch to lower its rating on the Hungarian debt.

Lastly, even in the event of strong turbulence spreading throughout the region, the risk of an exchange rate crisis, which might, as in Thailand in 1997, extend to the banking sectors, seems unlikely. Indeed, the latter, mainly controlled by foreign banks, are restructured and cleansed, with “reasonable” levels of doubtful debts.

## Conclusions

As the phenomena was more recent in Slovakia, this country still lags behind its regional neighbours in attracting FDI relative to the size of the economy. For example, the cumulative stock of FDI in Slovakia amounts to around 30 percent of the country's GDP, whereas in Hungary it is over 40 percent and in the Czech Republic around 50 percent, respectively (let alone Ireland's 150 percent). Hence, there is still a lot more growing to do.

TABLE 5: STOCK OF FDI IN 2002

	\$ billion	% of total (CEEC-10)	\$ / inhabitant
Czech Republic	38.450	26.17	2 056
Estonia	4.226	2.88	2 011
Hungary	24.416	16.62	1 971
Slovakia	10.225	6.96	909
Slovenia	5.074	3.45	1 440

Source: DREE, Revue Enlargement, special issue on FDI, May 2003

The major reasons for the increased FDI are the recently adopted comprehensive supply side reforms and markedly improved business environment that provide the country with inherent competitive advantages, such as a relatively inexpensive yet productive labour force, good geographic location, and reasonably well-developed infrastructure, to come to the fore. In order to improve the capacity of Slovakia to attract capital, it was important to improve the general investment environment by eliminating macro-economic imbalances and by developing infrastructure as well as education and training.

Most studies have focused on the determinants of FDI flows, but conceptually one should distinguish these from “real” investments in another country which may differ both because FDI flows may be directed to mergers and acquisitions (which do not contribute directly to increasing the capital stock in a country) and because real investments may be financed from capital raised in the host country. The determinants of these decisions, including tax considerations, are likely to be quite different. Other than the effective tax rate prevailing in a host country, the manner in which multinationals are taxed globally should play a role. This relates not only to potential double taxation in some countries, but even when this is not an issue, it matters whether the country of origin has a tax credit or exemption system: in the former case (e.g. the U.S. and Japan and in the EU the U.K, Ireland, Spain, and Greece) the tax rate in the host country in principle does not affect overall taxes, while in the latter case (other EU countries) it clearly makes a difference as there is no relation between taxes paid abroad and at home.

The undertaking of FDI by multinational firms involves complex strategic decisions, based on considerations about ownership, location, and internalization. While taxes may impact on all aspects of the decision process, several studies have shown that other factors are likely to be more important. These include agglomeration

economies, proximity to key markets, an attractive investment climate (political, social, and macroeconomic stability, rule of law, low levels of corruption, good infrastructure, etc.), and other production costs (including notably labour). Taxes are more likely to matter at the margin.

Finally, the treatment of the corporate income tax (CT) as an incentive for Slovakia, a. o., to attract investment and the reduction of other taxes, contributions and local taxes was also be worth considered.

The debate on competitive corporate taxation is dominated by the three following ideas:

- Even though the latest EU enlargement was accompanied by a fall in the CT rates of some CEE, in the OECD countries this movement began in the mid eighties;
- If the interest in “small economies” indeed lies in the development of tax competition and “non cooperation”, although the extra FDI thereby attracted seem marginal, the general interest does seem to be minimum coordination between Member States of the Union;
- Since the drop in CT rates has limited economic effects, in particular on the attraction of FDI flows, stress must be put on its fiscal consequences, in particular as regards the CEE, which must respect their commitment to fiscal discipline, whilst at the same time funding their bringing up to standard of infrastructures and provision for education and training.

Nowadays, the authorities face three main challenges:

- First, their aim of joining the euro area as soon as the nominal convergence criteria will have been met on a sustainable basis sets a demanding macroeconomic agenda. A significant reduction in fiscal deficits is required; not only to meet the fiscal rules but also to pursue disinflation objectives without an excessive tightening of monetary conditions that would impact negatively on growth and employment creation.
- Second, the employment rate needs to be raised through radical changes in the incentives to both supply and demand of labour while maintaining households’ confidence and political support for government policies. The recently introduced legislation to strengthen work incentives should be fully enforced.

Following the EU accession, the emphasis may be shifted to financial incentives, with fiscal incentives diminishing in significance – while, because of the EU regulations, the differences in investment promotion between Slovakia and its main competitors will become smaller, and the regional incentive competition will lose some of its intensity. The system of investment incentives should be redesigned in order to use arrangements allowed and co-financed under the EU rules. At the same time we must keep in mind that the EU places emphasis on compliance with the aid ceiling rather than on the form of assistance. The institution system of investment promotion would also require considerable changes: a single, more independent, more proactive organisation would be needed with decision making powers and concentrating exclusively on investment promotion. That institution must have a co-ordination role in granting benefits.

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SECTION 4  
MANAGEMENT OF ICT

2005

# Changes in IT Investments Philosophy: Moving towards Strategic Importance

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## Abstract

**This paper discusses the changes in Information Technology (IT) investment philosophy of companies in the United States of America. It analyzes the past and current behaviors of business investments in technology and the factors that have prompted companies to change their IT investment patterns. The paper discusses how the success of IT can not be measured with traditional methods of calculating return on investments (ROI) but must be evaluated in other ways. It highlights specific points proving that IT has slowly evolved over the years from an uncontrollable technological change to a strategic management tool that creates and increases competitiveness. In this strategic role, investment in IT has become a tool of growth for the companies.**

## Introduction

For the past decade, economists and information technology specialists have argued back and forth whether IT investments have generated return on investments and increased national output of goods and services. Businesses, fueled by high expectations on productivity growth generated by IT investments, heavily invested into computing power between the mid 1980s and the 1990s. It was generally accepted that IT spending would prove to be a valuable investments and would pay for itself in the long run. Growth and high return on investment were expected. A few years later, managers and business leaders were beginning to question the gains in productivity, which at best seemed to be in a state of status quo [Brynjolfsson, 1993]. Though a few success stories were recorded and praised, for most, information technology became a source of frustration and disillusion. The notion of the productivity paradox emerged. Companies, learning from the wasted billions in questionable IT investments, had to reinvent the way they did business to integrate their IT investments into their strategic planning. Today IT resources are specialized, tailored and customized to the needs of the company, and optimized to maximize companies' efficiency and output level. The transition phase has been a slow, lengthy, and painfully costly process.

This paper is part on a continuing research undertaken by Misra (2003) on the valuation of IT investments. This paper reports some glaring examples of large IT investments (projects) that have failed and the lessons that have been learned from them. This will include a discussion of a recent F.B.I. [New York Times, March 9, 2005] announcement to discontinue a \$170-million project to overhaul FBI's embedded computer software that would have enabled making searches across various databases easier and faster. The remainder of this paper is organized as follows: Section 2 discusses the conditions that led to questioning of the contribution of IT investments to productivity gains and other measurable returns such as ROI (return on investment). Section 3 presents three major examples of high profile failed IT projects. Section 4 analyzes the four stages of evolution of IT investments starting from the time of euphoria when no one questioned IT investments to the current (fourth) stage of the total (IT) integration management. Finally, Section 5 contains concluding remarks.

## Aftermath of IT Productivity Paradox and Slowing Economy

The IT paradox could be summarized as follows: in recent years computers have revolutionized the way companies do business with customers and other businesses; yet business data and other productivity statistics do not reflect any added growth. To solve this mystery, academic economists and scholars began collecting macro-economic data. The focus of the research mainly concerned many factors and labor productivity statistics. Economists discovered that both indices and the GDP dropped after 1973 when the first mainframe was introduced in the business world

[Hubbard, 2003]. In the late 1990s, the threatening Y2K bug forced companies to invest even more in IT resources to prevent a massive loss of data which many IT specialists predicted. Nothing happened and companies had more technology than needed and productivity growth was not going anywhere.

Many have written books and articles explaining this paradox. A great deal of time was also spent on detailing how to measure productivity. Economists just could not assess whether technology contributed to growth or negatively affected it. Productivity and GDP were still growing but at a much slower pace. Many argued that most analysts measured macro data when computer contribution can only be noticed on a micro level [Devaraj & Kohli, 2002]. Finally, the argued theories of the old economy and the new economy did not answer the problem or explain the paradox.

Researchers came to the conclusion that this paradox exists due to seven factors which mask proper measurements and analysis. These factors are: (1) IT investments only represent a small share of GDP. (2) Computers have a rapid rate of depreciation and obsolescence. (3) Old measurements do not apply in the new economy. (4) Poor analogy exists between the service sector (where productivity slowed down the most) and its heavy reliance on computers. (5) Computers have provided many intangible benefits. (6) A time lag exists between technology arrival and productivity benefits. (7) Web surfing, instant messaging and other nonproductive computer related activities have offset gains [Misra, 2003].

The attention given to measurements and assessments of IT contributions to the economy has changed the attitude towards investments in technology. In the beginning, IT expenditures were not subjected to major scrutiny. In the nineties, the bullish market pushed companies and businesses into a spending euphoria stage and expansion phase. IT spending was expensive, but due to the state of growth of the economy between mid-eighties and late nineties, few analysts, financial advisors and investors questioned the estimated payoffs of the IT investments. Today, however, growth has been succeeded by need to survive, and companies' strategic goals, choices and overall expenditures are under constant scrutiny from investors, shareholders and regulatory institutions. Time calls for conservation, savings and management to achieve economic profit. In order to remain solvent companies have had to optimize all factors of production and resource allocation. Most companies have adopted the "do more with less" policy and many have restructured, laying-off employees and changing or adjusting their business strategies and goals. Most companies strive to yield positive earnings in the past couple of years. Many industries such as the airline industry or the general retail industry have consolidated, strengthened and developed new strategic alliances to achieve such goals; yet only few have succeeded. The bearish economy increased the level of competition in a given industry, forcing each business to focus on increasing (at least holding) its market share rather than its size. New strategies have developed to establish, strengthen and augment a company's competitive advantage. This has translated into a greater coupling of IT strategy with the business strategy.

## **A Few Case Studies of Failed IT Projects: Learning from the Past Mistakes**

In order to understand the conditions that created changes in the attitude towards IT investment decision making, one needs to understand the causes of IT projects failures. We will discuss three prominent failed IT projects pointing out the key factors potentially responsible for their failure.

*The Case of Medicare Processing System in the Health Care Financing Administration:* In the article "Medicare Transactions: A \$50 Million Lesson in Project Management," Brian Friel (2000) studied the case of the Health Care Financing Administration (HCFA) which spent six years, from 1991 to 1997, developing a new IT system. This system was supposed to combine 14 Medicare systems located at 60 different sites and operated by more than 70 contractors. Each system was developed in different computing languages, different computing platforms and by different service providers between the 1960s and 1980s. After several years of debate, the agency concluded the systems were becoming unmanageable and decided to build one large, integrated system, which would handle all the agency's systems and programs. The new system was expected to generate huge cost savings over time once the system was implemented 5 years down the road. Although the inspector general of the HCFA warned the administration to develop a clearer strategy for MTS (Medicare Transaction System) before jumping into building a system, the administration went ahead and granted the development of the new system to GTE

Government Services. GTE developed a strategy to link these systems together; however, it became rapidly evident that HCFA was not clear on the needs and wants of the new system. In addition, GTE was not given enough information about Medicare complex processing. In 1994 and 1995 HCFA ignored the recommendations of the inspector general who warned of the danger of not giving GTE enough information. In 1996, due to considerable over-budget spending, Congress scheduled a hearing. HCFA ordered GTE to stop working on the project. The General Accounting Office estimated that HCFA spent \$80 million on project and the projected costs ballooned from \$151 million to \$1 billion. Furthermore, GTE estimated the project completion date not to be before the year 2000. In August of 1997, HCFA canceled the contract with GTE, and the MTS project was scrapped. During the congressional hearing, the General Accounting Office attributed the failure of the project to HCFA's lack of planning, strategic management, performance measurement and cost benefit analysis which would have allowed the administration to continually track the progress of GTE. HCFA was incapable of keeping track of its spending on the project while maintaining that it only spent \$50 million of the project.

*The Case of Russ Berrie and Company:* Russ Berrie & Company, the New Jersey based teddy bear manufacturer, also suffered from failed IT implementation [Songini, 2003]. In 1999, the bear maker contracted SAP AG to develop and implement a system that would migrate old applications such as homegrown distribution, financial and customer service systems toward Y2K compliant packaged ERP applications. The implementation of the project failed. As a consequence, the company was forced to "resurrect its aging Digital Equipment Corp system." and had to ensure that it was Y2K compliant. This process greatly strained both the IT department and the business units. The ordeal lasted three years and the total estimated cost of the failed project was \$10.3 million. This represented quite an investment for a company which had annual revenues averaging only \$230 million. In 2002 the company needed a working ERP and had to allocate new funds to the development of a new project. Even though it is not clearly stated in the case, one can easily conclude that the lack of strategic planning especially through the implementation phase was one of the key elements leading to failure.

*F.B.I.'s \$170 Million Virtual Case System:* Not much is known about this case except what FBI Director Mueller told the Congressional subcommittee hearings on March 8, 2005. He stated that the project suffered from technical, management and scheduling problems. If the system were allowed, he said, to be completed, it would have been an outdated system. He did not elaborate on what he meant by this. But, it can be safely assumed that the system would not have worked. He pointed out that the agency underestimated the required level of project/contract management skills and hence failed to assign the right people for the project. The Virtual Case File project was the third and last phase of a \$581 million effort to overhaul the embedded computer systems. Representative Frank R. Wolf of Virginia, chair of the subcommittee that oversees F.B.I. financing, has announced that his staff was opening a formal investigation into why the project failed. As the investigation of this case goes on, it will be interesting to find out the level of actual losses.

Unfortunately these scenarios of failed IT projects are not unusual. Johnson (1995) reported a study made by the Standish Group of the IT projects in the 1980's and 1990s. According to this report, 31% of new IS projects were canceled before completion, costing a combined bill of \$81 billion. In addition, nearly 53% of completed projects were 189% over the estimated budget, costing companies an excess of \$59 billion.

In another analysis of failed projects, Ewusi-Mensah (1997) identified some major and recurrent factors leading to project cancellation and implementation problems. The first was the lack of a clear statement of the new system's purpose and objectives which changed during the project development, decreasing further the chance of satisfying the need of the organization. The second element leading to project cancellation was an inherent problem rooted deep into the organization of the development team. Three sub-components were identified as part of the problem: (1) lack of structure and organizational purpose in the teams' efforts, (2) lack of leadership in the team and (3) lack of interaction between team members, often due to unclear lines of communication that created misunderstanding about requirements and design decisions, which encouraged individualism instead on team effort and synergy. The third element was the lack of system development methodology, which encompassed phase lifecycle approach which guided project team members through the development of each stages of the project. The absence of rigorous structures led to a status quo in the development of the project. Loose management and control of the development team was the fourth reason for development and implementation failure.

Often managers and executives, Ewusi-Mensah (1997) asserted, did not monitor and assess the progress of

the task. Problems were not identified early and only became bigger as the project development advanced. For obvious reasons, the technical knowledge and aptitude of the team should have been a must in the development of such project; yet many teams were under-qualified to develop the projects or the size of the project was too big for their competencies. He further stated that the size of the project was directly related to its level of difficulty. As the difficulty increased, so did the risks undertaken by the development team. Lastly, one of the last reasons for failure was the lack of cooperation and involvement from senior management executives in the development, assessment and progress of the project. Sufficient information and data were not given to the development team, and too often objectives were changed or new options were added considerably increasing the complexity of the projects and the risks of failure.

These failed IT projects quickly became a source of discontent and unease among senior executives and chief information officers. The main problem came from their inability to evaluate return on investment effectively as well as their failures to strategically plan and manage such project. Cramm (2001) stipulated that the lack of “adult supervision” of IT projects was responsible for their failure. Not enough attention was given to the payback of the IT investments. Executives adopted the “build it and revenue will come” philosophy for investment in technology. Cramm concluded that executives’ lack of understanding of the technology and their excessive faith in it gave them the authority to hold information technology above the common investments code of conducts which always required investment justification and measurements of expected returns.

Many books and articles began referring to IT investment as a necessary evil rather than a strategic management tool. Susan Cramm (2001) wrote: “Our faith in the devil we don’t know has given us permission to hold technology above the long established business codes of conduct that require investment justification and accountability for results.” However, after billions of dollars were wasted on failed projects and uncontrolled budgets, companies were more than ever dependent on computers and the needed information technology systems were still needed. Disclosures of many failed IT projects led to the questioning by the researchers and practitioners of the approval process used by the executives... Between the 1980s and mid 1990s, non-IT executive were in charge of approving IT projects. Due to subjective performance assessments, lack of relevant ROI measurements and investment management framework, IT became an expense to be minimized instead of an investment to be optimized [Cramm. 2001]. Incompatibility, lack of training or incurred mainframe upgrades cascaded into one problem or another. As a consequence \$5,000 software expenses lead to a \$50,000 or \$100,000 decision [Folio: Plus, 1999, July 15]. Realizing that IT investments were complicated and could not be treated as one time decisions, senior executives designated CIO’s to be responsible for IS developments. “It fell to them to wrestle back into reality the overblown promises and overrun budgets of information technology [Varon, 2003].” Project development became for the first time an incalculable risk. Uncertainty and incalculable risks forced IT development managers to rely less on science to evaluate potential value. It became an art. This new concept was the beginning of the so-called revolution [Andrew and Johnson, 2002] in making IT investment decisions...

## **(R)Evolution of Information Technology Investment Decision Making**

After reviewing many of the failed projects, we observe that IT investment decisions have evolved through four stages. The first stage was the age of euphoria and extreme optimism when not much attention was given to the return. Their success was taken for granted. The first stage evolved to a second stage in the aftermath of failed projects and disappointments. IT projects in order to get approved had to have detailed ROI justifications; life cycle costs (LCC) and total costs of operations (TCO) had to be accounted for. However, this did not improve the success of IT projects and people started to question the assumptions behind the calculations of ROI, LCC and TCO. The whole notion of justifying IT projects on financial returns came under attack. They did not do justice to the contribution of IT projects since they did not include (IT’s) strategic contributions to company’s business. The second stage evolved to yet another stage - the third stage. The decision matrix of IT investments included, in addition to the quantitative measures, an assessment of the impact on strategic factors [9]. The IT industry is still in this stage even though there are signs to expand the scope of the stage three decision matrix. We are calling it stage four – the stage of total integrated (IT) Impact. “It involves linking and influencing every segment of a firm’s

supply, production, distribution and service chains into a coherent whole using information technology,” [Rapp, 2002]. We are going to expand on each of these stages next.

This revolution of information strategy management has been a long and very costly process. Billions of dollars have been wasted and more than a decade passed before companies realized that they could not sustain such frivolous spending and not rely on the subjective art of senior executives’ evaluation system to assess the added value of their investments. IT investment became a necessary evil. Due to their high development failure rate, companies faced serious doubt concerning the actual and real value of such projects.

The lack of success and the billions spent on IT development raised many questions. Many tried to understand this phenomenon however asked the wrong questions: Why doesn’t this work? What’s the problem? How can we fix it? Most of these questions were reactive questions and lacked scope and perspective. The projects were poorly designed and structured and as consequence, implementation could not be executed or completed. It became apparent that strategic planning and strict project management were necessary to get control of these exuberant spending over the project life cycles. Projects needed to become highly structured. First hand managers had to strictly review and closely supervise goals, scope, target and logic behind the strategy. Companies came to the conclusion that there was no alternative to IT and was necessary for the company to remain competitive. Now companies desperately tried to reduce failure rates of IT projects, overall costs, increase viability and gain (or sustain) competitive advantage through information technology.

The primary driving force that resulted in revolutionizing IT investment decisions came from analyzing the managers’ past wrong doings. Andrews and Johnson (2002) called it the Waterfall effect leading to disappointing results. It is comprised of five “unrealistic assumptions” which managers tend to make during the development of an IT project. The first assumption was the expectations that the business environment would remain constant during the project. In the new information era, such conditions were unrealistic. The Internet has opened the doors to instant communication and access to desired information, considerably reducing the bounded rationality effect. As a consequence the business environment has constantly changed and evolved. Such assumption could have been made prior to the late 80s but not after that. Many managers still kept the same mentalities and failed to realize this constant evolution. The second assumption was that end users could exactly define in advance what they needed. Project failures and over budgeting cases have one common trend: users always want more. The third managerial assumption was that intricate problems could be entirely resolved on the first attempt. According to these authors, “classic methodologies assume a linear process where the problem is defined, a plan is created, the solution is implemented and victory is declared.” Complex problems require much more than a linear solving process and are much more demanding on the knowledgeable people and resources. An answer might not be found right away or not at all depending on the complexity of the problem. The fourth assumption implied that managers expected requirements to be known and defined before the software could be selected. Due to assumptions one and two, these requirements often changed and one specific type of software bundle could not be defined. Managers often choose one specific package and had to modify it due to the changing environment and customers’ needs. The switching costs were tremendous. The fifth and final assumption was that changes would be universally and happily accepted in the company. Once again experience and common sense should have dictated otherwise.

Over the past two decades, managers have had tremendous trouble linking IT projects to positive financial growth. Typical return on investment measurements does not seem to apply to IT projects. Return on investment has been in center of the economic debate that raged between economists and analysts during the 1980s and 1990s. Measurements along with the various factors affecting those measurements were scrutinized and criticized; yet no one gave tangible reasons why IT benefits could not be aggregately measured. Solovy and Chaiken (2003) showed that IT returns could be of three different types. The first type is financial, which either directly increases revenue or reduces overall cost. Operation returns are the second type of returns. Processes are done more efficiently, various errors are eliminated and the company’s overall daily operations are improved. The third type is structural. It resembles the operation type. It is slightly different because it involves improvement of customer care and services. These different types of returns render ROI method obsolete and require managers to re-evaluate what they expect from a project.

For many years the classical ROI calculations have limited the field of visions of managers. Specifically, two major shortcomings presented significant concerns from tactical and strategic points of view. According to

Northrop (2003), ROI calculations are based on “assumptions of possible project revenues and are often baseless, inflated or inaccurate,” and “the ability to accurately predict the investment component is highly questionable.” Due to these shortcomings, a transformation of ROI analysis was required. ROI are based on assumptions that often are not true. Continuing Solovy and Chaiken’s (2003) idea, Northrop explains that these assumptions were often based on an assumption of a static business environment. Furthermore, ROI analysis has proved to be of little use due to the failure and cost overruns in developing IT projects in the 1990s.

These traditional assumptions, which are the basis of ROI, cannot be applied to IT project development due to the simple fact that IT investment creates and improve many intangible benefits that cannot be measured. Mindsets are however in general difficult to change. Today, some managers still believe that if a strategy can not show a positive return within the first three years, it is a failure. IT has constantly challenged these managerial perceptions and expectations of various projects and development, therefore many managers have been forced to change their classical project evaluation methods.

We contend that there was no “IT revolution”, as claimed by some [Guidoni, 1993]. A revolution is a spontaneous and sudden change in behavior, patterns or regime. Changes in IT project management were slow, costly and have not been completely achieved. Undeniably, the environment and mentalities have changed and so have expectations of IT returns and use. However, IT project development processes and financial return measurements have not been revolutionized they have evolved and transformed. Evolution is a slow and rigorous process constituted of trials and errors. It comes after chaos and brings stability. Stability is achieved due to drastic control measures. The survival of the fittest has been evolution’s main control tool for billion of years. From a business viewpoint, IT investments and IT project development were chaotic between the mid 1980s and the 1990s. As previously mentioned, billions of dollars were wasted on failed projects and over budgeting. The explosion of the technology bubble and the following world wide recession brought rigorous control on project developments.

The evolution of IT investments has left many business managers discontented and burned because it has come at great financial costs. After the billions spent, no one can deny that IT investment has generally brought little tangible returns. At this point one may wonder the use of IT investments is and why one would spend more IT development. These questions are legitimate and many managers may wonder the same; yet it is very difficult to conceive the business world without technology and information technology. It is clear that information technology investments brought new elements; however, it is hard to pin point exactly what and measure it. One may look at the evolution of the business environment in the past two decades and may conclude that most of the IT contributions to the business environment are intangible elements.

A few examples are internet banking, supply chain management, the music industry and information accessibility. Undeniably, technology has become a greater part of our lives over the years. IT investments have not brought financial returns but have certainly brought value, growth, knowledge and increased customer care in more than one way. These intangible elements are extremely important in today’s economy and can create sustainable competitive advantage over competitors. It is very difficult to evaluate the impact and benefit of IT investments on Wal-Mart’s supply chain; yet it is undeniable that the company has managed to save billions in inventory costs and logistics. These savings have been passed on to customers who enjoy the company’s everyday low price strategy. Such IT investments create distinct and sustainable competitive advantage for Wal-Mart. K-mart back in the late 1990’s could not compete on such low margin and had to declare bankruptcy.

Kaplan & Norton (1996) developed a business management strategy called Balanced Score Card that could help answer these questions. This business strategy favors growth and emphasizes business improvement through development of intangible assets. The balance score card helps company develop competitive advantage and create real customer value. It "provides executives with a comprehensive framework that can translate a company's vision and strategy into a coherent and linked set of performance measures...used to articulate the strategy of the business, to communicate the strategy of the business and to help align individual, organizational and cross departmental initiatives to achieve a common goal." Over the years, companies' focuses changed from revenue growth and beating the street's analysis to meeting and exceeding customers’ expectations through learning, internal and customer strategic goals. These goals are then linked to financial elements to ensure the viability of such initiatives.

Only a handful of companies focused on future value and customers’ needs during the 80’s and 90’s. The trend was one of revenue growth and beating analysts’ forecasts to increase shareholder's equity. Today revenue and

economic profits are difficult to achieve, and companies must find different ways of growing. Companies have turned their attention toward intangible assets. "Branding, knowledge, customers and innovation are nearly impossible to numerically quantify, yet have a very significant impact on an organization's success and growth" [Northrop R. (2003)]. Information technology has developed and increased many of these areas for example online banking or logistics and many others. Managers are beginning to understand this concept and are now developing new strategy to integrate IT into increasing customer value and customer service. For instance, Wendy's recently announced that it would allow customers to use credit card to purchase hamburgers and fries. Customers will be allowed to use technology to simplify their transactions for their convenience. Wendy's strategy is to attract new customers and retain a greater number to ultimately increase market share and overall revenue.

Companies have taken proactive measures to link IT projects and business strategies. To fulfill this purpose, IT steering committees have been formed in many companies and have become widespread in the business world. These committees, while providing CEOs with information about IT usefulness, contribution and linkage to the company, ensure that "CEOs agree that IT has strategic importance to their company" [Varon, 2003]. These committees help decision makers to analyze more relevant data and simplify and clarify the decision making process. Overall, they help IT organization to concentrate on better execution of strategies.

Steering committees are not the only way CIOs and top managers can reach better decisions when it comes to IT investments and how to use IT to enhance strategies. In the mid 1980s, Congress was growing wary of the lack numerical proof of economical growth due to IT involvement. Many were concerned of the IT paradox. Considerable amount of government investment were spent on IT projects; yet no empirical data proved the investment to be worthwhile. Congress passed the Information Technology Management Reform Act on February 10, 1996. It is also known as the Chief Information Officers Act. It was enacted to reduce IT projects financial waste and "provide CIOs with several identified set of realistic and attainable actions to be taken to show American Tax Payers that IT investment are having a clear positive impact on outcomes"

In the recent years, the notion of Total Integrated (IT) Impact has emerged. "It involves linking and influencing every segment of a firm's supply, production, distribution and service chains into a coherent whole using information technology," [Rapp, 2002]. Such integration allows for cost cutting as well as better designed and more efficient delivery of products and increased customer satisfaction. It affects a firm's environment through increase relationship between its suppliers and customer care after sale and provides a tool to tie both sides closer to the firm's strategies to create new strategic partnership. Competitive advantage is gained through that process due to increased shared information between suppliers and the firm, reducing inventory cost. Customers' needs and expectations can be assessed faster and the company can adapt quicker and more efficiently its products to the tastes of consumers.

## **Conclusion**

In conclusion, this paper has shown that information technology investment decisions have evolved over the past twenty years. Some called it an IT revolution; however, we disagree because it delivered results only three decades after its development. Through various examples we have shown that the transition was not only extremely costly to companies but also very slow and lengthy. Revolutions are spontaneous and involve radical changes. Gradual change over several decades cannot be revolutions. It is clear that much can still be done to further improve its effectiveness and efficient use throughout an organization to further improve every aspect of the current business operations of companies. Return on investment will undoubtedly be difficult to evaluate and analyzed because IT mostly benefits companies' intangible assets such as customers service or brand recognition. Information technology investment should get the same level of scrutiny like any other financial investment. Its scope and impact should be well diversified. Managers should however not expect a fifteen percent return on investment. They should focus their attention instead on increasing market share, brand recognition, customer satisfaction and care as well as overall length reduction of their supply chains and its management.

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# A Relationship Perspective to Investigate the Effect of IT Capability on Outsourcing Success

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## Abstract

Client-vendor relationship has been deemed to be vital to Information Systems (IS) outsourcing success. With the premise that relationship intensity should be affected by the business process of IS outsourcing, we focus on the interaction process of IS outsourcing and the resource capabilities as key antecedents of the process performance. Using the corporate IT resource and capability theories, we investigate the effect of the corporate IT capabilities on the IS outsourcing process. Subsequent casual relationships between interaction process, relationship intensity, and IS outsourcing success are modeled. The results of empirical testing support most of the hypotheses proposed in this study. Our research is distinguished in the sense of integrating corporate IT resource and capability theories with social exchange theory, which in most cases treated separately in IS outsourcing research.

## Introduction

Extensive researches have been conducted for the effective use of Information Technologies (IT) to enhance firm's competitiveness. IT in general and IS particular, are one of the firm's core resources to cope with rapidly changing environmental threat (Barney, 1991). Corporate IT capability is a comprehensive concept including firm's IT infrastructure, IT personnel resources, and intangible assets of the firm (Bharadwaj, 2000). In addition, based on the resource-based theory of firm, Wade and Hulland (2004) proposed managerial skills as an important factor required for IS development, operation, and maintenance in organization.

Capturing necessary firm's competitiveness, make-or-buy decision has been received focal attention, for instance, to define firm's optimal boundary. While a classical supply chain perspective emphasized effective business extension to either upward or downward, proliferation of inter-organizational information systems enabled by cheaper IT cost encourages firms to concentrate on core competences and to build trust relationships with business partners for effective collaboration. In a similar vein, IS outsourcing has become more popular as the scope and extent of IS outsourcing are continuously expanding. IS outsourcing is defined as to handling over the management of IT/IS assets, resources, and/or activities for required results to one or more than one third party (Willcocks & Kern, 1998). Over the last decade, one of the more widespread trend in meeting an organization's IT needs is the growth of the IS outsourcing (Dibbern, et al., 2004). Nowadays, IS outsourcing has become commonly accepted and growing practice as a means of meeting organization's IS needs.

Recently, an emerging stream of research has focused on managing the relationship between the outsourcing vendors and the client (McFarlan & Nolan 1995; Lee & Kim, 1999; Kern & Willcocks, 2001; Lee, et al., 2003). Accordingly, IS outsourcing relationship has already received considerable attention in the IS literature (Klepper, 1995; Willcocks & Kern, 1998). To create and sustain firm's competitiveness by exploiting the gains from IT resource capabilities, ensuring the success of outsourcing is so important. Thus, management efforts are focused on securing proper IT assets through IS outsourcing and effectively managing outsourcing relationship, thereby leading outsourcing success (Grover, et. al., 1996; Kern 1997; Kern & Willcocks, 2002).

In this paper, we investigate the effect of the corporate IT capabilities on outsourcing success through the enhancement of both client-vendor interaction and relationship. The motivation of the study mainly stems from the lack of literatures to link the corporate IT resource capabilities to outsourcing relationships. The majority of the

previous studies examines outsourcing relationships and success from the social and contextual aspects. With the premise that the relationship intensity should be affected by the business process of IS outsourcing, we emphasize the role of the interaction process of IS outsourcing as an intervening variable to link the causal relationship between corporate IT capabilities and relationship intensity. The importance of both interaction process and relationship intensity has been reported in various disciplines such as marketing, supply chain management, and so on. As illustrated in Figure 1, this study tries to explore the impact of client firm's IT capability on interaction process, relationship intensity, and IS outsourcing success.

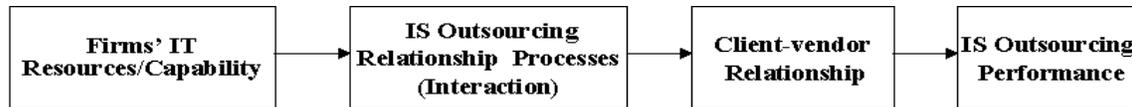


FIG 1: RESEARCH FRAMEWORK

## Background

IT capability is more than a specific set of sophisticated technological functionalities, as it is an enterprise-wide capability to leverage technologies for gaining and maintaining competitive advantage. Since IT capability is embedded within the fabric of the organization, it can be tacit and difficult to identify. The presence and effectiveness of the IT capability is reflected in business performance (Bharadwaj, 2000; Peppard & Ward, 2004). The capability includes organization-specific routines, processes, skills, and resources (Hejden, 2001).

Adopting the theory of resource-based view (RBV), IS researchers identified various IT resources that served as potential sources of competitive advantage (e.g., Bharadwa, 2000). Bharadwa (2000) defined firm's specific IT resources as IT infrastructure, human IT resources, and IT-enabled intangibles. IT as an enabler to achieve strategic objectives, Ross, et al. (1996) classified the firm's IT capability into a reusable technology base (technical asset), competent IT skills (human IT asset), and an intimate relationship between a firm's IT and business unit management (relationship asset). Lee et al. (1995)'s study on IS professionals suggested that industry would demand, in order to effectively lead organizational integration and process reengineering activities, a cadre of IS skills for the areas of technical knowledge and skills, business operations, management, and interpersonal. They emphasized IS managers' capability to understand and appreciate business needs, to co-work with functional managers effectively, to co-ordinate IS activities supporting other functional managers, and to anticipate future business needs.

Feeny & Willcocks (1998) characterized nine distinct IS functions as a set of core capabilities. They are IS/IT governance, business systems thinking, relationship building, designing technical architecture, making technology work, informed buying, contract facilitation, contract monitoring, and vendor development. Also, they mapped the nine capabilities with the skills and knowledge requirements framework proposed by Lee, et al.(1995). Although there are plenty of researches on IT resources and capabilities affecting business performance, only a few researches reveal the importance of the corporate IT capabilities required to successfully engage the service providers (Feeny & Willcocks, 1998; Shi et al., 2004).

On the other hand, extensive researches have been conducted to understand the outsourcing success by developing effective relationships between clients and their outsourcing vendors (Grover, et al., 1995; Kelpner, 1995; McFarlan & Nolan, 1995; Lee & Kim, 1999; Kern & Willcocks, 2002). Klepper (1995) addressed the importance of development of long-term relationships with good partnership building. He explored the mechanism enabling the development of long-term relationship between clients and vendors. Using transaction cost and social exchange theories, Dwyer et al. (1987) also developed the sequential stage model for developing outsourcing partnership. Grover et al. (1996) configured partnership as an intervening construct to ensure outsourcing success, and its measures were derived from the marketing applications (Anderson & Narus, 1990). Willcocks and Kern (1998) used a case study approach to examine the causality of interaction process and outsourcing success. Using power political and social exchange theories, Lee and Kim (1999) suggested an extended view on the set of

antecedents of partnership by distinguishing them into the determinants of partnership quality and the attributes of partnership itself.

There are many other researches studying IS outsourcing relationship and success (Henderson, 1990; Lasher, et al., 1991; Willcocks & Choi, 1995; Saunders, et al., 1997; Kern & Willcocks 2002). Whole body of the literatures emphasize that the relationship between clients and vendors plays a crucial role on IS outsourcing success. However, only a few studies capitalize the importance of the client firm's IT capability as an antecedent of the effective outsourcing relationship (Feeny & Willcocks, 1998; Kern & Willcocks 2002). This study attempted to fill this gap.

## **Research Model and Hypotheses**

### **Research Model**

The concept of the process theory implies the set of causations consisting of necessary conditions in sequence. Chance and random events merely occur to enable the necessity of causal relationships (Markus & Robey, 1988). The process theory ensures that this set of outcomes do not always occur unless all the specified set of events consisting a causation chain is fulfilled. In case that some events necessary for the outcome may fail to occur at any point in the chain, it derails all or some of the desired outcomes (Sho and Markus, 1995). The process theory is useful to precisely recognize and accept the complexity of the causal relationship (Markus and Robey, 1988).

The process-oriented approach is strongly supported by a growing number of researchers who advocate a process-assessment of IT business value. It is based on the argument that the first-order impact of IT investment is realized by improving either individual business processes or inter-process linkages, or both. The greater the impact of IT on individual business processes and inter-process linkages, the greater the contribution of IT to firm performance (Tallon, et al., 2000). Melvill et al.(2004) indicated that IT and complementary resources of the focal firm improve the performance of business processes, which ultimately affect organizational performance (Brynjolfsson & Hitt, 2000). As illustrated in Figure 2, our research model is developed to depict the successive causal relationships between the firm's IT capability, interaction process, relationship intensity, and outsourcing success.

Variables in the firms' IT capability are extracted from the existing IS literatures conducted mainly from the resource-based view (RBV). The RBV provides a theoretical foundation to explain the firms' IT capability and resource. Based on Lee et al. (1995) and Feeny & Willcocks (1998)'s studies, we introduce three variables to reflect the client firm's corporate IT capabilities that affect outsourcing success through interaction process and relationship intensity. The variables are IT capability consisting of technical IT capability and managerial IT capability, organizational relationship capability, and vender management capability. Technical IT capability refers to the technical knowledge and skills needed to develop applications in the firm (Lee, et al., 1995), while managerial IT capability refers to where and how to deploy IT effectively and profitably for meeting strategic business objective (Meta, et al., 1995). Second, organizational relationship capability can be defined as the relationship between IT and business groups within an organization that enables the business to constructively engage in IT issue (Bassellier et al., 2004). Finally, vender management capability refers to looking beyond existing contractual arrangement to explore the long-term potentials for suppliers to create win-win situation (Feeny & Willcocks, 1998).

Applying the Hakansson's IMP group model (1982), Kern and Willcocks (2002) conducted a case study to reveal the interaction process mechanism in IS outsourcing. Lee and Kim (1999) distinguished partnership-related factors as dynamic, static and contextual ones. The terms from the literature having similar meaning with interaction process variables are as follows: communication, information sharing, participation, cooperation, knowledge sharing, joint action, participation and conflict (Anderson & Narus, 1990; Morgan & Hunt, 1994; Mohr & Spekman, 1994; Ganesan, 1994; Henderson, 1990; Grover et al, 1996). Among them, three major variables - information sharing, communication quality and collaborative participation - are selected to represent the degree of the interaction process.

The relationship intensity has been referred as diverse terms such as relationship closeness, relationship quality, relationship strength (e.g. Bove & Johnson, 2001), partnership quality (Lee and Kim, 1999), and so forth. More & Spekman (1994) defined relationship as the purposive strategic relationship between independent firms

who share compatible goals and strive for mutual benefits to acknowledge the high level of mutual interdependence. Variables employed to measure the level of relationship intensity in the literature are as follows; trust, dependence, commitment and coordination (More & Spekman, 1994); trust, business understanding, benefit and risk share, conflict, commitment (Lee & Kim, 1999); communication, trust, cooperation, satisfaction (Grover et al., 1996). Bove & Johnson (2001) summarized the prior literature and proposed three key attributes of relationship intensity, i.e., trust, commitment, and interdependence. This study adopts them as main constructs of the relationship intensity.

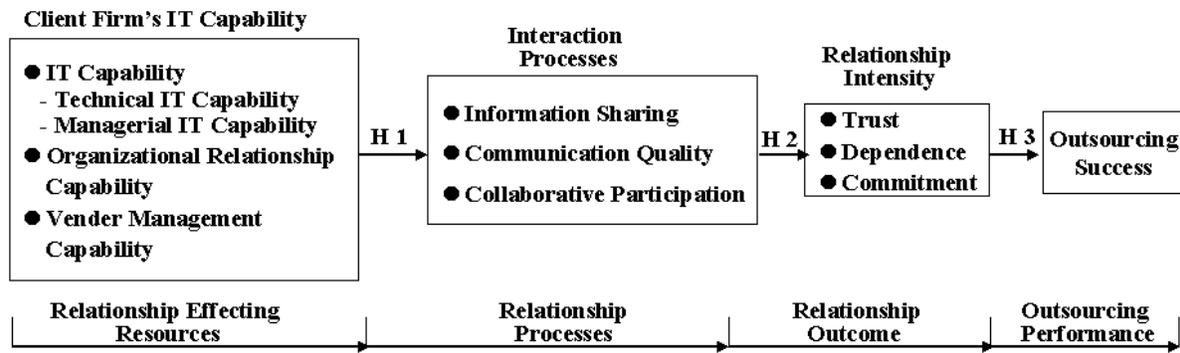


FIG. 2: RESEARCH MODEL

IS outsourcing success was analyzed from strategic, technological and economic perspectives (Grover et al., 1996). Saunders et al. (1997) added overall satisfaction to them. Lee and Kim (1999) extended the outsourcing success measures by adding the user perception of outsourcing performance. The perceived user satisfaction was measured with system reliability, relevancy, timeliness, accuracy, currency, and completeness of information. This study focuses mainly on business satisfaction (i.e., Grover et al's instrument) rather than user satisfaction of IS outsourcing.

## Research Hypotheses

As mentioned earlier, corporate IT capability includes comprehensive IT skills, inter-organizational communications, and management IS outsourcing functions. Rapid environmental changes are imposing firms to develop more diverse technical skills. Though the firm's IS outsourcing could reduce the burden to maintain such a broad IS capability, the client IT capability is a necessary condition to effectively leverage the vendor's technical and managerial skills. (Feeny & Willcocks, 1998; Kern and Willcocks 2002). For example, client firm's IT knowledge on IT trends can encourage vendors to share valuable information with their partners. It also makes sense that the firm having a clear IT standardization and blueprint should be in a better position to communicate with its vendors. That in turn improves the communication quality and vendor's collaborative behaviors. As such, our first set of hypotheses is derived for the causal relationship between the firm's IT capability and interaction process.

H1-1: The firm's IT capability positively influences the degree of information sharing.

H1-2: The firm's IT capability positively influences the degree of communication quality.

H1-3: The firm's IT capability positively influences the degree of collaborative participation.

Relationship between IT and business groups within an organization enables business people to more actively engage in IT issues (Bassellier & Benbasat, 2004). Besides, IT group's intimate inter-organizational relationship can convince the business people that IT people understand business goals and concerns to be cooperative in achieving business goals (Feeny & Willcocks, 1998; Bassellier & Benbasat, 2004). Many other researches are found to emphasize IT people's interpersonal skills (Lee et al 1995; Bassellier et al. 2003; Feeny & Willcocks, 1998). The importance of cooperative relationship between IT department and business groups is also addressed by Feeny & Willcocks, (1998) and Bassellier & Benbasat (2004). Close inter-organizational relationship

can induce more information sharing between the client and the vendor not only to correctly reflect business needs but also to achieve business goals. Even somewhat confidential information can be shared each other. That may lead higher degree of communication quality and more collaborative participation of the vendor. This can be stated more formally by the following hypotheses.

H1-4: The firm's organizational relationship capability positively influences the degree of information sharing.

H1-5: The firm's organizational relationship capability positively influences the degree of communication quality.

H1-6: The firm's organizational relationship capability positively influences the degree of collaborative participation.

Vendor management capability is one of the core IT capabilities for the firm to facilitate the outsourcing (Feeny & Willcocks, 1998). It helps vendors to successfully implement their services to satisfy all user's needs (Lacity et al, 1995). In addition to contractual obligations, formalized outsourcing management processes and work evaluation principles are required to have better communication and information sharing. Also the outsourcing vendor selected through well-refined processes will be more reliable and qualified to share corporate information. In other words, a good relationship cultivated by effective vendor management will create the win-win situation for future potential benefits (Feeny & Willcocks, 1998). Accordingly, the effective vendor management capability may necessarily influence the degree of interaction process. So, the following hypotheses can be proposed.

H1-7: The firm's vendor management capability positively influences the degree of information sharing.

H1-8: The firm's vendor management capability positively influences the degree of communication quality.

H1-9: The firm's vendor management capability positively influences the degree of collaborative participation.

Information sharing refers to the extent to which critical, often proprietary information is communicated to one's partner (Mohr & Speckman, 1994). Fundamental information sharing is ascertained by contractually agreed upon communication mechanisms such as regular meetings and report exchanges (Keen & Willcocks, 2002). By sharing information and being knowledgeable about each other's business, partners are able to act more productively to maintain the relationship over time (Mohr & Speckman, 1994). That is, relationship intensity can create a competitive advantage through the strategic sharing of organization's key information (Lee & Kim, 1999). Thus, the information sharing is an important predictor of the relationship intensity (Mohr & Speckman, 1994), as proposed in the following.

H2-1: The information sharing positively influences the degree of trust.

H2-2: The information sharing positively influences the degree of dependence.

H2-3: The information sharing positively influences the degree of commitment

Communication is defined as the formal as well as informal sharing of appropriate information between the parties, while communication quality represents the accuracy, timeliness, adequacy, and credibility of information exchange. Timely accurate and relevant information is essential to build a better partnership relationship (Mohr & Speckman, 1994). Anderson & Narus (1990) addressed the importance of the effective communication between partners to achieve the intended objectives. Therefore, following hypotheses are proposed.

H2-4: The communication quality positively influences the degree of trust.

H2-5: The communication quality positively influences the degree of dependence.

H2-6: The communication quality positively influences the degree of commitment.

The participation refers to the extent to which partners jointly engage in planning and goal setting (Mohr & Speckman, 1994). Collaborative participation between partners plays a significant role in enhancing the sustainability of their relationship over time (Henderson, 1990). The collaborative participation allows them to establish mutual expectations and specifications of cooperative effort (Mohr & Speckman, 1994). Effective working interactions are marked by collaborative actions directed at mutual objectives that are consistent across organizations (Narus and Anderson, 1997), which lead to higher relationship intensity.

H2-7: The collaborative participation positively influences the degree of trust.

H2-8: The collaborative participation quality positively influences the degree of dependence.

H2-9: The collaborative participation quality positively influences the degree of commitment.

Many researches have shown that relationship intensity is crucial to outsourcing success (Grover et al., 1996; Kern, 1997; Lee & Kim, 1999; Kern & Willcocks, 2002). Trust is defined as a firm's belief that another company will perform the action in such a way to result in positive outcomes for the firm, and not to engage in unexpected behaviors with negative outcomes (Anderson & Narus, 1990; Grover et al., 1996). Dependence can be

seen as a need to maintain the channel relationship to achieve the desired goals (Ganesan, 1994). Commitment is defined as an exchange partner's belief that an ongoing relationship with another is so important as to engage maximum efforts to maintain it. Accordingly, the relationship intensity can be a key determinant of outsourcing success. We hypothesize that:

- H3-1: The trust positively influences outsourcing success.
- H3-2: The dependence positively influences outsourcing success.
- H3-3: The commitment positively influences outsourcing success.

## Research Methodology

### Measures

This study adopted constructs that had already been used and validated by other researchers. Firm's IT capability variables were measured based on Lee et al. (1995), Bassellier et al. (2003), Nelson & Coopriider (1996), and Feeny & Willcocks (1998)'s studies. The interaction process variables were developed by revising the instrument proposed by Mohr & Spekman (1994) and Lee & Kim (1999). The measures of the relationship intensity variables were based on the commitment-trust theory (Morgan and Hunt, 1995) and the relationship theory (Ganesan, 1994). Finally, outsourcing success was measured in terms of strategic, economic, and technological outsourcing gains developed by Grover, et al. (1996). A five-point Likert-style questionnaire was developed.

TABLE 1: PROFILE OF RESPONDENTS

Sample	Response classification		Response frequency		Outsourcing type*
20 projects	Client Firm	84	Team leader	9	SI: 12 SM : 8
			Project Manager	11	
			Team Worker	64	
	Vendor Firm	101	Team leader	14	
			Project Manager	19	
			Team Worker	68	
Total	185		185		20

\* SI: Systems Integration; SM: System Management

### Data Collection

The initial version of the questionnaire was pretested by faculty members, managers in IT organizations, and IS workers in client firms. Each item was reviewed by them to improve content and construct validity. The final questionnaire consisted of 51 items for 10 constructs. Data collection involved 25 outsourcing project teams between clients and vendors. Totally, we collected 185 responses, consisting of 84 from clients and 101 from vendors, from 20 outsourcing projects. We summarize the response profile in Table 1.

### Reliability and Validity of the Measures

We analyzed the gathered data using the confirmatory approach. Before analyzing the structural model, the validity of the measurement model was examined. Among 53 items, 10 were discarded due to lower consistency between the measurement items. Finally, 43 items were used for the final analysis.

The reliability was then estimated by examining composite reliability. The value of composite reliability ranged from 0.842 to 0.883, as shown in Table 2, which is higher than a commonly used threshold for acceptable reliability, 0.7. Three types of validity were assessed: content validity, convergent validity, and discriminant validity. Content validity was established by ensuring consistency between the measurement items and the extant literature. This was done by interviewing the faculties and practitioners and during the pilot-testing of the instrument. We assessed convergent validity by examining composite reliability and average variance extracted (AVE). AVE for our measures ranged from 0.561 to 0.737, while the threshold for acceptable convergent validity is 0.5 (Hair et al.1998). For discriminant validity, it was assessed by looking at the square root of the average variance

extracted. The square root of the average variance extracted for each construct was greater than the correlations between all other constructs, as described in Table 3.

TABLE 2: RELIABILITY AND VALIDITY

Measure	Items		Standard loading	SMC(R-squire)	Composite reliability	AVE
	Initial	Final				
IT Capability						
- Technical IT	5	4	0.72, 0.78, 0.80 , 0.81	0.52, 0.61, 0.63, 0.66	0.902	0.569
- Managerial IT	4	3	0.75, 0.72, 0.69	0.56, 0.51, 0.50		
Organizational relationship	5	3	0.76, 0.89, 0.83	0.58, 0.78, 0.69	0.867	0.686
Vendor Management	5	5	0.78, 0.83, 0.84, 0.84, 0.86	0.61, 0.68, 0.70, 0.71, 0.73	0.917	0.690
Communication	4	4	0.77 , 0.85, 0.89, 0.82	0.59, 0.72, 0.79, 0.68	0.901	0.695
Information sharing	4	3	0.85, 0.77, 0.79	0.64, 0.53, 0.68	0.846	0.647
Collaborative participation	5	5	0.78, 0.84, 0.74, 0.79, 0.82	0.61, 0.70, 0.55, 0.62, 0.67	0.895	0.632
Trust	4	3	0.77, 0.84, 0.85	0.60 , 0.70, 0.72	0.861	0.674
Dependence	4	3	0.73, 0.74, 0.75	0.54, 0.56, 0.56	0.784	0.548
Commitment	4	3	0.81, 0.81, 0.82	0.66, 0.66, 0.67	0.854	0.662
Outsourcing Success	9	7	0.76, 0.75, 0.78, 0.72, 0.78, 0.81, 0.80	0.58, 0.56, 0.62, 0.51, 0.61, 0.65, 0.64,	0.912	0.596

TABLE 3: CORRELATION BETWEEN CONSTRUCTIONS

	1	2	3	4	5	6	7	8	9	10
1. IT capability	<u>0.76</u>									
2. Organizational	0.33***	<u>0.83</u>								
3. Vendor	0.41***	0.52***	<u>0.83</u>							
4. Communication	0.25***	0.42***	0.43***	<u>0.83</u>						
5. Information	0.22***	0.44***	0.42***	0.75***	<u>0.80</u>					
6. Participation	0.28***	0.45***	0.52***	0.75***	0.79***	<u>0.80</u>				
7. Trust	0.37***	0.48***	0.39***	0.67***	0.73***	0.73***	<u>0.82</u>			
8. Dependence	0.16*	0.24***	0.09	0.43***	0.54***	0.57***	0.58***	<u>0.75</u>		
9. Commitment	0.21***	0.31***	0.39***	0.65***	0.66***	0.77***	0.63***	0.74***	<u>0.81</u>	
10. Outsourcing Success	0.11	0.30***	0.45***	0.60***	0.62***	0.59***	0.43***	0.47***	0.67***	<u>0.77</u>

The members on the diagonal are the square roots of the average variance extracted

\*p<0.10, \*\*p< 0.05, \*\*\*p< 0.01

## Analysis and Finding

### Overall Model Fit

Before evaluating the structural model, we assessed the overall fit of the model to ensure that it was an adequate representation of the entire set of causal relationships. Three types of goodness-of-fit measures were assessed; absolute fit measures, incremental fit measures, parsimonious fit measures. As in Table 3, the chi-square result was nonsignificant ( $\chi^2_{(1131)} = 2114, p=0.00$ ), whereas the GFI (0.74) and AGFI (0.71) were lower than threshold values. Normed Chi-Square (1.86) for the model was found to be within acceptable threshold limits (1.0–2.0 or 3.0). Thus, overall model fit measures indicate that this model is marginally acceptable

TABLE 4: INDICES OF MODEL FIT

Measures	Recommended Level	Research Model
<b>Absolute fit Measures</b>		
Chi-Square/df (p-value)	p>0.05	2114/1131(P=0.00)
Goodness of Fit Index (GFI)	Higher	0.74
Root Mean Square Residual (RMSR)	lower	0.05
Root Mean Square Error of Approximation (RMSEA)	<0.08	0.06
<b>Incremental fit Measures</b>		
Non-Normed Fit Index (NNFI)	>0.9	0.96
Adjusted Goodness of Fit Index (AGFI)	>0.9	0.71
Normed Fit Index (NFI)	>0.9	0.92
<b>Parsimonious fit Measures</b>		
Normed Chi-Square	1.0~2.0/3.0	1.86
Comparative Fit Index (CFI)	High value	0.96
Critical N (CN)	>100-150	185
<b>Overall model fit Measures</b>		
Normed Chi-Square	1.0~2.0/3.0	1.86

**Testing the Hypothesis**

Path significance and its explanatory power were examined using LISREL 8.52. The hypotheses were estimated by calculating the significance of path coefficients. The level of significance  $p < 0.05$  ( $t > 1.96$ ) was employed. Looking at the results of the impact of vendor’s competence on interaction process, organizational relationship capability (H1-4~H1-6) and vendor management capability (H1-7~H1-9) are significantly related to information sharing, communication quality and collaborative participation respectively. But, the client firms’ IT capability is not shown to have significant relationships with information sharing, communication quality, and collaborative participation (H1-1~ H1-3).

Among the constructs consisting of interaction process, information sharing and collaborative participation are significantly related to trust (H2-1, H2-7), dependence (H2-2, H2-8), and commitment (H2-3, H2-9), respectively. In the meantime, communication quality is related only to trust (H2-2) and commitment (H2-6), while no significant relationship was revealed with dependence (H2-5). Also, significant relationships were found for both trust and commitment with outsourcing success (H3-1, H3-3), but dependence is not associated with outsourcing success (H3-2). In summary, the results of hypotheses testing are presented in Figure 3 and Table 5.

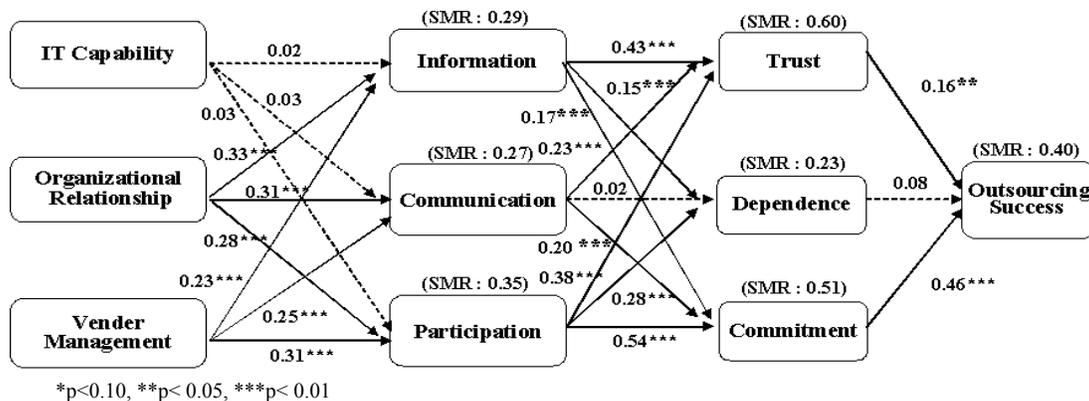


FIG. 3: RESULTS OF THE MODEL ANALYSIS USING LISREL

TABLE 5: RESULTS OF HYPOTHESIS TESTING

Path	Hypothesis	Estimate	T-value	Result
IT capability → Information	H1-1	0.02	0.26	Reject
IT capability → Communication	H1-2	0.03	0.31	Reject
IT capability → Participation	H1-3	0.03	0.34	Reject
Organizational relationship → Information	H1-4	0.33	2.79***	Support
Organizational relationship → Communication	H1-5	0.31	3.06***	Support
Organizational relationship → Participation	H1-6	0.28	4.07***	Support
Vender management → Information	H1-7	0.23	7.30***	Support
Vender management → Communication	H1-8	0.25	6.17***	Support
Vender management → Participation	H1-9	0.31	8.87***	Support
Information → Trust	H2-1	0.43	5.06***	Support
Information → Dependence	H2-2	0.15	3.91***	Support
Information → Commitment	H2-3	0.17	6.56***	Support
Communication → Trust	H2-4	0.26	3.50***	Support
Communication → Dependence	H2-5	0.02	0.38	Reject
Communication → Commitment	H2-6	0.20	2.96***	Support
Participation → Trust	H2-6	0.38	5.19***	Support
Participation → Dependence	H2-8	0.28	4.31***	Support
Participation → Commitment	H2-9	0.54	5.72***	Support
Trust → Success	H3-1	0.16	1.99**	Support
Dependence → Success	H3-2	0.08	0.78	Reject
Commitment → Success	H3-3	0.46	5.13***	Support
<b>Indirect Effects</b>				
IT capability → Success		0.01	0.50	
Organizational relationship → Success		0.19	4.33***	
Vender management → Success		0.17	4.49***	
IT capability → Trust		0.02	0.50	
Organizational relationship → Trust		0.32	4.98***	
Vender management → Trust		0.28	4.85***	
IT capability → Dependence		0.01	0.44	
Organizational relationship → Dependence		0.13	3.49***	
Vender management → Dependence		0.13	3.67***	
IT capability → Commitment		0.02	0.49	
Organizational relationship → Commitment		0.27	4.55***	
Vender management → Commitment		0.26	4.86***	
Information → Success		0.13	3.44***	
Communication → Success		0.16	3.48***	
Collaboration → Success		0.33	5.86***	

\*p<0.10, \*\*p<0.05, \*\*\*p<0.01

## Conclusion and Discussion

The contribution of this study is to develop a relationship model that encompasses the effect of firm’s IT capability on outsourcing success through interaction process and relationship intensity. The empirical testing results indicate that organizational relationship capability and vender management capability are critical antecedents to influence the outsourcing interaction process, whereas technical and managerial IT capabilities do not show statistically significant relationships. The plausible reason of the insignificant relationships is that in most sampling projects, the vendor firm’s competence such as technical skills and business domain knowledge might be sufficient so that less significant attention was paid to the client firm’s IT capability. It could be also possible that vendor’s relatively long prior engagement with the client could let the vendor take over client’s roles related to technical and managerial IT capabilities.

Trust, dependence, and commitment variables are defined as three components of relationship intensity. All associations between three variables of interaction process (i.e., information sharing, communication quality, and collaborative participation) and relationship intensity have strong statistical significance. One exception is between communication quality and dependence. Communication quality also shows marginal significant associations with

trust as well as commitment. Further, dependence displays an insignificant relationship with outsourcing success while other two variables, i.e., trust and commitment, do. The possible reason is attributable to relatively weaker perceived effect of communication quality on relationship intensity, compared to information sharing and collaborative participation. It also coincides with the result that dependence is the least perceived antecedent of outsourcing success.

We believe that the model provides a better understanding of the outsourcing relationship and of how it can be managed to ensure outsourcing success. Within limited knowledge of the authors, this could be the first empirical test to investigate the impact of client firm's capability on IS outsourcing relationship. By adopting the process theory, we incorporate the resource based firm's IT capability theories with outsourcing relationship.

The first limitation of this study was the composition of the sample. Somehow it lacks randomness in the sense that the number of project units is limited, and they are selected mostly via personal acquaintances. However, we believe that it does not significantly harm the research findings due to high quality data collected from random distribution. Second, this study was conducted as a snapshot research without considering the dynamic nature of outsourcing relationship. On the base of this research, further research could be recommended: vendor capability and contextual situations of IS outsourcing environment can be considered to extend the proposed model in this study.

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# Managing ICT Risks of an Academic Institution

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## Abstract

Millions of dollars have been poured into almost a half-century of growth, expansion and development, physically, technologically and academically, but did ICT culture in terms of safety and security grow in tandem with the infrastructure growth in Universiti Teknologi MARA (UiTM)? This research found that although the academic staff of UiTM is moderately ready to embrace change in this technological era but they expressed feelings of discomfort and insecurity because the environment does not provide the necessary infrastructure for its smooth implementation and application in terms of security or risk control mechanisms to prevent potential abuse of the IT system; privacy protection on data; and potential system congestion and failure. A change within the organizational structure is necessary to ensure that the infrastructure for the safety, security, reliability and applicability of the information and technology systems is fail-safe.

## Introduction

Universiti Teknologi MARA (UiTM) an academic institution of reputable standing in Malaysia, with a student population of more than 100,000 introduced the concept of electronic learning (e-learning) or e-PJJ (Pendidikan Jarak Jauh or Distance Learning) back in the early 1990's. The first trial run of e-learning took effect in 1998. By the following year, numerous problems were encountered and the system had to undergo major improvements and by the year 2000 the predicament with the new era of learning was brought under control. Some of the reasons cited for the improvements were the engagement of the ICT specialist, Pointflex Co., both students and academicians were provided training on on-line learning techniques and the increase in the number of internet facilities in most branch campuses. Hence, at the initial enrolment of 300 students in 1998, this number grew to 3,000 in the year 2003.

Besides the e-learning program UiTM is also a storehouse for vast amount of information, students and staff personal records, research materials in the library, the research units, assets and finances under the treasury and many others. Even though UiTM went computerized in 1993, the upgrading process only occurred in the year 2000, with the introduction of the STAR (Staff Information System) and ISIS (Integrated Student Information System).

However, bringing a new technology into an organizational system does not come problem free. The computerization of the workplace and levels of IT dependency that exist, means the risks associated with the failure of IT systems owe one of the most potent sources of operational risk within any organization. Management may come up with indigenous ways of preventing or reducing risk with this new exposure, but new ways of committing crime are also emerging. The perils associated with storage of data include those of sabotage, theft of data, theft of computer time and espionage [Head, 1995]. Along with the damaging effects associated with computerization are risks that emerged with the advent of the Internet, in particular, the usage of e-mail (actions of staff), on-line-fraud (employees and non-employees) and system penetrations (actions of third parties) [Holmes, 2002]. To reduce losses from criminal activities of this nature, the organization has to adopt some form of physical/operational or security/control, procedural/administrative control and managerial/administrative control.

### Research Question

Against this backdrop, this study aims to address the following question:

What is the possibility of systems abuse when new technologies are introduced and adopted by UiTM?

### Research Objective

To examine the management role of preventing systems abuse through the introduction and adoption of new technology by the academic staff of UiTM.

### **Significance of the Study**

Adequate security system controls, (whether in academic institution or corporate sector) implemented against computer crime will alleviate a major cost to the organization and encourages a more conducive environment for the academicians and the students alike.

### **Research Methodology**

An opinion survey technique via a questionnaire using the dimension of:

Fidelity – controlling the potential creation of risk resulting from systems abuse associated with the adoption of new technology. The questionnaires were sent to the sample selected, which comprised of a portion of the population of academic staff of UiTM throughout Malaysia. The questionnaire was developed along the lines suggested by Head (1995).

A sampling frame was obtained with the aid of the registrar's office and for generalizability, a proportionate stratified random sampling was employed to select a total of 600 respondents. Questionnaires were first pilot-tested on 20 respondents also randomly selected to ascertain reliability. The final version of the questionnaire was sent to all 22 faculties in Shah Alam, the main campus and mailed to 11 branch campuses nationwide. A total of 152 questionnaires were returned giving a response rate of 25.3 percent.

#### **Research Contributions**

The results from the study will be able to determine whether the current provisions made by UiTM verbally or in writing is adequate and whether there is a necessity to initiate the establishment of an ICT policy to enable controlling the risks arising from computer usage.

### **Literature Review**

Bringing a new technology into a system has its inherent weaknesses. There is always a potential for abuse of the system by the users themselves, which may ultimately result in a financial loss to the organization. This is especially true for those risks associated with the usage of Internet. This service is opened to all kinds of risks associated with e-mails, electronic fraud and systems penetration [Holmes, 2002]. Yet another survey by Barker (2001) found that the main threat to e-business comes from current (11%) as well as former employees.

Baranoff (2004) says, like any property that we owned, computers are vulnerable to theft and employee damage, both accidental and maliciously. The author quoted from reliable sources that theft of proprietary information had reached US300 billion loss in the United States alone in 2001 and employees were usually the perpetrators. Organizations are also exposed to other forms of risks such as, liability risks, where a company is being sued for libel, defamation, and invasion of privacy, similar to the print media. Griffith (2000) suggests, that there are five major exposures that need to be protected: intellectual property (copyrights, trade secrets, trademarks, patents etc.), security (against viruses and hackers), business continuity (in case of system crashes) defamation (web-site content, postings on e-mail) and violation of an employee's right to e-mail usage.

Mizuno (1999) points out that unless a company takes the risks as a whole company problem and there is a leadership or corporate culture that is being nurtured to combat these risks, four risk management problems about the Internet will always exist, and they are:

1. It is not understood what kind of dangers exists.
2. It is not understood what should be protected.
3. It is not understood what kinds of measures are possible.
4. It is not estimated how much damage is suffered.

According to Erikson (2001), a significant percentage of corporations are under-prepared for computer-Internet or technology risks. Their claim of the global nature of e-commerce, the varying legal systems, and the speed at which innovations and technology are brought to the forefront complicate the challenges facing organizations.

How does an organization begin to tackle this problem? Griffith's (2000) advise is, first and foremost, a corporate strategy of risk management should be developed which should include a legal review of all web-site content; followed by a clear corporate guidelines on e-mail usage and to strengthen this with a virus detection and protection installation of security systems. The next step then, is to identify the risks and lay out the options for dealing with the risks.

According to Reza & Moeini (2002), academic institutions are ideal environments for hackers and intruders who are highly motivated to access and modify grades and other information and that while corporations are in a better position to put limitations on the Internet connectivity, academic or research institutions simply cannot function under such limitations. Electronic users of academic institutions need unrestricted and transparent access to Internet resources (on-line, library catalogs, preprints of papers, World-Wide-Web etc.) They also need unrestricted ability to publish and disseminate information to the masses. Therefore, academic institutions require newer and better security measures to be developed solely for academic institution's compatibility. While the experts in the field provided some suggestions on potential measures that could be implemented to combat these risks, Head (1995) combined all these elements and divide the measures for controlling computer crime into 3 categories:

**Physical Control**

Basically limit access to authorized personnel, screen for viruses, uses of password, block computer from potential vandalism, other external or electronic signals, shield from external interference or eavesdropping, and monitor users.

**Procedural Control**

This involves screening of present and new personnel for past computer-related crime, conduct frequent unannounced audits and transfer or rotate employees among positions.

**Special Managerial Control**

Management should undertake to educate personnel on features of computer-related crime, how the organization is combating it, counseling employee who are under financial or personal pressure (stress) and lastly to remain alert to changes in operating procedures or technology that might offer new opportunities for abuse of the system.

**Analysis and Findings**

TABLE 1: RESPONDENTS' PROFILE

Profile	Description	# of Respondents	Percentage
<i>Gender</i>	Male	60	40.5
	Female	88	59.5
<i>Age</i>	25-35 years	47	31.8
	36-45 years	76	51.4
	46-55 years	20	13.5
	> 55 years	5	3.4
<i>Race</i>	Malay	132	90.4
	Chinese	4	2.7
	Indian	7	4.8
	Others	3	2.1

TABLE 2: ACADEMIC PROFILE

Profile	Description	# of Respondents	Percentage
<i>Academic Position</i>	Professor	4	2.7
	Associate professor	34	23.1
	Senior Lecturer	16	10.9
	Lecturer	92	62.6
	Instructor	1	0.7
<i>Length of service</i>	< 5 years	58	39.2
	5-10 years	24	16.2
	11-20 years	54	36.5
	> 20 years	12	8.1
<i>Level of Education</i>	PhD	14	9.5
	Masters	114	77
	Degree	18	12.2
	Diploma	1	0.7
	Others	1	0.7
<i>Current Position</i>	Deputy VC	1	0.7
	Assistant VC	1	0.7
	Dean	1	0.7
	Deputy Dean	4	2.8
	Heads of Program	12	8.5
	Coordinators	24	17
	Others	12	8.5
	None	86	61

A majority of the respondents are female academicians (88), representing 59.5% of the sampled respondents. About 51% (76) of the academic staff comes from the 36-45 years of the age category followed by 31.8% (47) from the 25-35 years. One hundred and thirty-two respondents (90.4) are Malay, followed by 4.8% (7) Indians and 2.7% (4) Chinese.

In terms of their academic positions, 62.6% (92) are lecturers, 23.1% (34) are associate professors while 10.9% (16) are senior lecturers. A majority or 39.2% (58) of the sampled respondents have only been with UiTM less than 5 years, 36.5% (54) have serviced the university between 11-20 years, while 16.2% (24) have been with the university between 5-10 years.

Of the 148 lecturers sampled, 77% (114) hold a masters degree, 12.2% (18) a bachelors degree and 9.5% (14) are Ph.D graduates. Sixty-one percent (86) of the sampled respondents do not hold any posts, 17% (24) lecturers are coordinators and 8.5% (12) are heads of programs or those that fall under the category of others (HEP, Campus director, Resident staff etc.).

TABLE 3: STAFF AWARENESS ON THE PRESENCE OF PHYSICAL CONTROL, PROCEDURAL CONTROL AND SPECIAL MANAGERIAL CONTROL ON COMPUTER AND INTERNET USE:

	Questions	Respondents Perception (%)		
		Yes	No	Don't know
<b>Physical Control</b>	Is there an organizational policy on computer usage?*	31	27	42
	Were staff informed about policy on computer usage?*	20	75	3
<b>Procedural Control</b>	Are the staff aware of policy on internet & usage?	6	25	69
	Are the staff aware of who developed the policy?			
	Top management	79	-	-
	Unit/Department	22	-	-
	Is the policy written?	27	73	
	Are e-mails accompanied with a disclaimer?	46	55	
	Are the staff aware of possible legal action for abuse of e-mail and internet usage?	10	90	
<b>Special Managerial Control</b>	Are the staff aware of possible disciplinary action for abuse of e-mail and internet use?	27	73	
	Is there any indication of monitoring of e-mails and internet use?	30	70	
	Staff opinion on possible action by UiTM for any policy violation	60	20	
	Have staff been counseled for financial and personal pressure?	7	93	
	Does staff feels insurance is a good measure to combat computer fraud?	1	25	74

\* Campus with the highest score for “Yes” for awareness on UiTM’s policy on computer usage is Trengganu and highest score for “No” is Faculty of Business Management, Shah Alam. The highest score for “Yes” for staff being informed about organization’s policy on computer usage is Pahang while the highest score for “No” is Faculty of Business Management.

In reality, the PSMB (Pusat Sumber Maklumat Bersepadu) unit, of UiTM charged with the preparation of an ICT policy has sent a draft to the relevant authorities but, in principle, has not been accepted at the senate level, therefore is not yet operative. In other words, UiTM staff has only hunch of its existence but could not verify. This explains for the high percentage of staff (94%) who are not aware of UiTM’s policy on computer and internet usage. Hence, the ensuing questions resulting in a high response of “No’s” and “Don’t know’s” is attributable to the non-implementation of the ICT policy as yet. Further tests conducted to determine whether there is any relationship between demographic variables: gender, age, race, academic position, length of service and current position and the 3 measures of infidelity: physical control, procedural control and special managerial control resulted in the following:

TABLE 4: ONE-WAY ANOVA FOR AGE GROUP

	25- 35 years	36 – 45 years	46-55 years	Above 55 years	F value
Physical control	3.20	3.59	3.37	4.10	2.17
Procedural control	2.90	2.73	3.32	2.67	.884
Special mgr. control	3.66	3.19	3.33	3.45	1.02
Infidelity	3.88	3.81	3.87	4.44	1.36

\*\*p < 0.01, \* p< 0.05

TABLE 5: ONE-WAY ANOVA FOR RACE

	Malay	Chinese	Indian	Others	F value
Physical control	3.50	3.40	3.80	2.60	-
Procedural control	2.90	3.25	2.42	2.33	.010
Special mgr. control	3.36	3.25	3.46	3.25	1.840
Infidelity	3.25	3.30	3.23	2.73	0.925

\*\*p < 0.01, \*p < 0.05

TABLE 6: ONE-WAY ANOVA FOR ACADEMIC POSITION

	Lecturer	Senior lecturer	Assoc. Professor	Professor	F value
Physical control	3.52	3.68	3.33**	3.15**	3.015
Procedural control	2.85	3.68	2.93	3.29	.572
Special mgr. control	3.43**	3.22**	3.20	3.69	2.31
Infidelity	3.27	3.53	3.15	3.38	1.97

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

TABLE 7: ONE-WAY ANOVA FOR LENGTH OF SERVICE WITH UiTM

	< 5 yrs	5-10 yrs	11-20 yrs	> 20 yrs	F value
Physical control	3.42	3.60	3.46	3.37	.476
Procedural control	2.93	2.83	2.84	2.72	.940
Special mgr. control	3.51	3.48	3.19	3.25	.414
Infidelity	3.29	3.30	3.16	3.11	.610

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

TABLE 8: ONE-WAY ANOVA FOR EDUCATION LEVEL

	Degree	Masters	PhD	F value
Physical control	3.97	3.40	4.10	2.537
Procedural control	3.40	2.75	3.08	.049
Special mgr. control	3.65	3.28	3.67	4.920
Infidelity	3.67	3.14**	3.62**	2.502

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

TABLE 9: ONE-WAY ANOVA FOR CURRENT POSITION WITH UiTM

	Head of Program	Coordinator	Asst. Vice Chancellor	Deputy Vice Chancellor	Others
Physical control	3.56	3.24	-	-	3.72
Procedural control	2.94	2.68	3.00	4.67	3.35
Special mgr. control	3.13**	3.36**	3.00	3.50	4.14
Infidelity	3.21	3.09	3.00	2.72	3.74

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

The insecurity dimension amongst different academic position depicts that professors and associate professors are affected by the insecurity of the system, probably because they have a sound understanding of how the system in UiTM functions, having worked in the organization for at least ten years and above. Likewise, new lecturers are not bothered by the insecurity of the system probably because they are not in the know on how the system in UiTM functions. They are more bothered by actions that could be taken against them as new entrants to the organization for the potential breach of security system, and this has greatly shaped a general feeling of insecurity in their positions. The differences in educational achievements results indicated that the higher the educational level, (MBA and Ph.D), the more concern it is of the staff on the potential infidelity of employees in general. Any actions that are deemed to jeopardize the safety of information in UiTM are looked upon with great

fear. It would seem that, maturity (tenure and educational achievement) plays a significant role in establishing responsibility and accountability.

Lastly, for those holding positions in UiTM, there is significant difference in the fidelity level between Head of Programs (3.13) and Coordinators (3.36). These are people who come into contact with the system everyday in their role as administrators where, students' grades, staff performance and appraisal, researches and many other important data are stored in the system. Any acts of vandalism, information heist, hacking and the like could ruin so many years of hard work. Likewise, at the higher levels, deans, assistant vice-chancellors and deputy vice chancellors because these are people with higher positions and allocated with a personal assistant to do the menial tasks of data entries and protection, therefore, worries over computer failures and data loss or sabotaged is not within their domains. The rest of the other demographic variables showed no relationship to the fidelity measure.

## Conclusion and Recommendations

As Mizuno (1999) had explained earlier, if an organization treats an ICT problem as the headache of the division of information and system only, then the real risk associated with the use of ICT tool will never be addressed.

Findings from this study seemed to suggest that UiTM management seemed to fall into this category because it is perceived to be rather slow in tackling the problems of potential abuse of the system judging from the length of time it takes for the whole institution to take any forms of action to eliminate or reduce this risk. The task of risk control has been pushed to the PSMB unit, which act as an ICT tool protector. From the year 2000, until today, the ICT policy could not be implemented merely because of the absence of approval from the senate of the university as yet. Thus, with no protection and almost no information dissemination with regards to the rules and guidelines for the staff on ICT and its usage (more than 80% were not informed and are not aware of any policy on Internet and its usage), academicians were totally left on their own to decide on how best to manage this tool. Speed is definitely not within the corporate culture of UiTM in handling very important and pressing issues.

UiTM has given support to a progressive use of ICT in educational management with the introduction of the e-PJJ program, the bulk of research activity is conducted on line, confidential and pertinent data are stored within the IT systems, then the institution should aptly provide the infrastructure necessary for its smooth implementation, continuously upgrading, maintaining and monitoring the management of ICT equipment and systems against potential abuse, violation or improper conduct and infidelity. It is prophesized that with a change in the organizational culture and the policies in place, could bring about an effective adoption of new technology and safe use of ICT equipment in UiTM.

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# Toward an Understanding of Participating Behaviors and Technical Tools used in Virtual Communities

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## Abstract

With the advent of the Internet café, chat sessions, instant messengers, special interest e-groups and now blogs, people do not need to be physically close together for exchanging their ideas. The participants can have shared experiences that are instantaneous and pretty[d1] much of the same nature that is usually realized by the traditional collection of special interest people in close proximity. The members of these groups share their knowledge, cooperate with each other to solve problems, and feel responsibility for each other. In other words, they behave as if they belong to the same community – a virtual community in this case. Just as conventional communities are important for business, these virtual communities are expected to play a similar role. Internet based technologies have been the great enablers of virtual communities. This paper reports the framework of the research in progress. We first discuss, based on the published work in this area, the typical characteristics (behavior, expectations, etc.) of the members of various virtual communities. These people fall in one of the four groups – tourists, minglers, devotees and insiders. We make a stipulation that there are significant variations in the technology needs of each of these groups. As part of this research, we propose to develop a model that would map technology to each group. We will develop criteria to measure the effectiveness of technology in meeting the expectations of its members.

## Introduction

Virtual Communities (VCs) are the coffee houses of Internet space. It is here people gather, electronically, to talk and listen; to satisfy curiosities, to form and reinforce opinions, to learn, or to form and maintain relationships (Hagel and Armstrong, 1997). Every user is at once a producer and a consumer of information, providing self-selecting forums for those who care to listen—or talk—to each other. Users consider themselves members of a virtual community and attempt to guard the quality of that community, a unique bastion of cooperation, sharing, and information exchange. While self-fulfilling exchanges have flourished, rhetorical exigency - the type of shared communication exchange that underlies commerce - has not. [d2]For businesses, shared control co-mingles and homogenizes market segments, which is the antithesis of micro-marketing.

Much like coffee shops in real space, VCs are capable of increasing stickiness on the part of “customers,” drawing them into frequent repeat visits. Over time, the community members build trust, relationships, and commitments. These three customer behaviors may have powerful impacts on business in terms of relationship marketing, customer loyalty, and business image (branding). Virtual communities are abundant within specific market sectors: books (amazon.com), apparel (apparelex.com/bbs), steel (indconnect.com/steelweb), nanotechnology (nanothinc.com), coal (coal.ca/blog). VCs may provide ideal tools for e-commerce, e-marketing, and knowledge building.

To tap this resource, businesses need to understand the components of VCs, their types, the motivations of the participants, and the types of interactions taking place in VCs. Most importantly, to leverage the impact of VCs, businesses must know which technical tools most facilitate the types of participant behaviors that lead to stronger relationships, more positive images, all hopefully leading to greater sales at the end. This research, conceptual in nature, seeks to identify key behaviors of highly important participant groups and then to assess technologies used in VCs to determine which tools are of most benefit to businesses in achieving their goals for VCs. We have adopted an interpretive framework – an in-depth analysis of the specific significance that a VC has for its members. The findings suggest various research avenues that will be helpful in seeking to maximize business gains for VCs.

## Classification of VCs

The multi-disciplinary nature of VCs leads to many definitions, depending on one's perspective. Wang, Yu and Fesenmaier (2002) suggested that these perspectives are multi-disciplinary that include sociology, technology, business, economics, and e-commerce. Lee, Vogel and Limayem (2002) analyzed a number of studies and developed a working definition of virtual communities: "...A technology-supported cyberspace, centered upon communication and interaction of participants, resulting in a relationship being built up." The various definitions of VCs share four elements:

- Community, a feeling of belonging based on human relationships, not physical presence
- Place, a virtual location where the boundaries are defined by the people who are there and by the discussions they have
- Bonding, a sense of membership or connectedness to others in the community (Sproull and Faraj, 1997)
- Shared objective, a central purpose felt among the participants

Not all virtual communities develop and flourish with the same objectives. Hagel and Armstrong (1997) focused on classifying these virtual communities according to the underlying purpose or needs served:

- Communities of relationship where people with similar experiences come together and form meaningful personal relationships,
- Communities of interest which aggregate a dispersed group who share an interest or expertise in a specific topic,
- Communities of transaction where information is traded among participants, and
- Communities of fantasy for exploring new worlds of entertainment

Bressler (2000) modified the classification of virtual communities to a business perspective by considering the motivation(s) of participants:

- Purpose – people are trying to achieve the same objective,
- Practice - where people share the same profession or situation,
- Circumstance - similar to purpose, but driven by personal experiences rather than professional motivations, and
- Interest - people who share a common passion.

These virtual communities have also been variously classified by their focus (Jones and Rafaeli, 2000):

- Basic human needs - interest, relationship, fantasy, transaction;
- Use, social structure, or technology-base - (e.g., FAQ, expert knowledge (stewards accumulate and organize knowledge), news groups, web site, or social multiplier (e.g., friendster.com); and
- Motivation - communities of purpose, practice, circumstance, interest.

Across the various types of VCs, successful communities have a number of relationship outcomes (Grunig, 2004) among their members that represent attributes important to businesses. One, for example, is control mutuality, the degree to which parties feel satisfied with the amount of control they have over the relationship. Interestingly, this may be the antithesis of current notions of business-customer relations where businesses generate, and thereby control the flow of information to the customer. In the new economics of information, value will be assigned, even created, by the community members, not the vendors who would define organizations or markets. This value of knowledge will be derived from its shared context: the strong experiential and reflective elements of knowledge that make its underlying information content relevant and actionable. The "new" networked community will emerge with new communication patterns and new supporting technologies.

Trust, another VC relationship outcome, involves the confidence that both parties (either customer-customer or customer-business) have in each other and their willingness to be open to each other. There is a mutual reciprocity, perhaps with accountability, to each other, which leads to a feeling that the relationship is worth spending time on. [d3]Clark (1995) suggests that the type of relationship may develop in one of two, opposing ways. Communal relationships develop as responsiveness to the other person's needs. In these relationships, the parties do not like being repaid for favors, do not feel exploited when not repaid, and do not keep track of contributions. In

relationships built on the notion of exchange, the activities are governed by the need for equity; parties want to be repaid, feel exploited if exchange is not equal, and (they) like to keep track of contributions. In both types of relationships, satisfaction occurs when each party feels the other is taking steps to maintain the relationship.

## **Communication Patterns of VC Types**

Of most interest to business are those VCs, which are purposively structured around consumption (Kozinets, 1997; Kozinets and Handelman, 1998) of goods or services. In these VCs there is a shared enthusiasm for a product or service (ex. the collection of baseball cards) that invites commitment to the VC. This enthusiasm and its outcome of repeated visits create the stickiness that allows for repeated marketing messages. The attributes of stickiness seem to develop at different rates, depending on characteristics of the participants. Kozinets (1999) suggests two non-independent factors of participants in communities of consumption. First is the centrality (in terms of importance) of the consumption activity to the person; the more central consumption is to the individual and his/her self-concept, the more likely it is that person who will pursue and value membership in a VC on the type of consumption. The second is the intensity of relationships with other members of the VC vs. the intensity in real space. Other things being equal, the value of a membership in a real or virtual community depends on which fulfills the relationship needs better.

Kozinets (1999) suggests that these two factors define four types of VC members.

- Tourists have only a passing interest in the consumption activity and lack strong ties to the group.
- Minglers also have only a superficial interest in consumption, but have strong social ties to the group.
- Devotees, the opposite of minglers, have strong interest in the consumption activity and only passing interest in the social ties of the VC.
- Insiders exhibit both strong consumption activity and strong social relationships

Communication interactions within the VC are contingent on the type of member. Devotees and tourists focus on factual information without regard for social relationships in the community. Minglers and insiders tend to focus on the social relationships first. To Kozinets this suggested two other modes of interaction: recreational mode, a purely selfish, short-term entertainment carried on mostly by minglers and tourists and transformational mode in which communication is focused on longer-terms social gain. Devotees and insiders predominate this mode.

If businesses are to successfully leverage these types of members and their preferred mode of communication, the structure and tools of the VC must match the needs and requirements of the members. What are the structures and their characteristics? Kozinets suggested a number of types of virtual communities of consumption:

- Dungeons provide social interaction in a game-playing mode. Minglers and insiders appreciate this recreational mode.
- Rooms, as in “chat rooms” are synchronous social environments populated by minglers and visitors engaged in recreational and interaction modes.
- Rings, or web rings, are linked web sites used for information collection. Lists are linked. Both provide a transformational mode used by minglers and devotees.
- Boards are frequented by insiders and devotees who read and post messages sorted by date and subject.

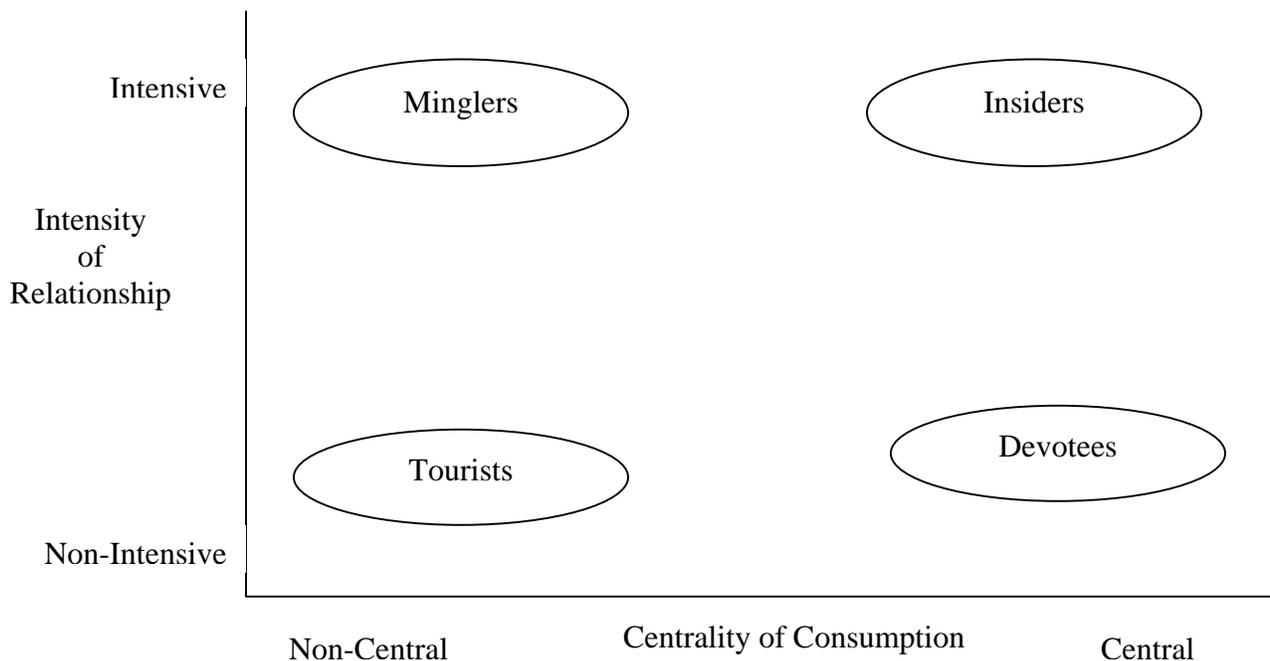


FIG. 1: TYPES OF VIRTUAL COMMUNITY MEMBERS BY CONSUMPTION CHARACTERISTICS

### Technologies Supporting Virtual Communities

Lazar, Tsao, and Preece (1999) suggested that such technologies as listservs, newsgroups, bulletin boards, Internet Chat Relay (IRC) and Multi-User Dungeon (MUD) support the communication within the community and help create its boundary. Two other technologies, Wiki and Blog are currently becoming very popular. Wikis are focused on the knowledge aspect of a subject matter and do not focus on the contributors nor on the chronology of their contribution. Blogs are (open) electronic diaries that have gotten the attention of even some CEOs.

We examined these technologies from two angles – the level of involvement required from the users (members of VC) and the quality of the information received by the members. Figure 2 displays how various currently available VC technologies map into these two dimensions. MUDs require the highest level of attention and deliver the highest quality of information. On the other end of the scale, email groups are the least demanding on the users and deliver the lowest quality information. We have also shown in Figure 2 the degree of sophistication (feature richness) of these technologies. There seems to be a direct correlation between the level of attention required from the users and the sophistication of the technology. In a way, this could point to a problem from user's point of view. This perhaps would keep many potential new members from using some of these technologies because of the notion that they require advanced level of technology IQ. One research question is if indeed there is evidence to support this.

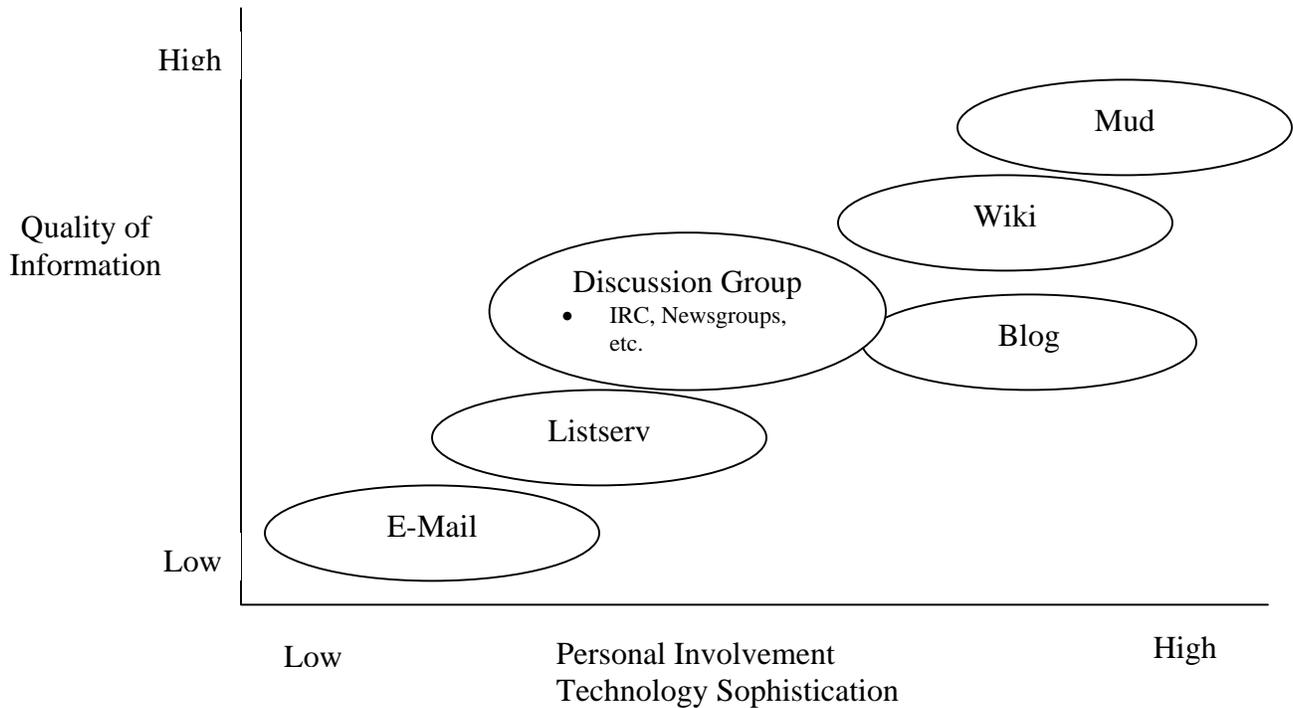


FIG. 2: LEVEL OF INTERACTION, QUALITY OF INFORMATION AND VC TECHNOLOGIES

It is expected that as VCs become more popular and established, the technology will adapt to the needs of VC members and vice versa, along the lines of what has been called the mutual shaping perspective (Boczkowski, 1999). According to Orlikowski, Yates, Okamura and Fujimoto (1995), technology must support special needs of a context and must continue to change to keep meeting the new context. Business drivers for the development of this technology come from the businesses that are going to use these communities as targets for selling their products or services. Here is the dilemma (Barnett, 1998). Businesses cannot just focus on their narrow marketing interests but have to consider all four human needs – transaction, interest, fantasy and relationship (Hagel and Armstrong, 1997) in developing fully functional websites for these virtual communities. What this really means is that even though there are specific applications of some aspects of technology, the composite technology (we can call them platforms), consisting of many technology products, will tend to support most of the needs of VCs. The analogy used here is that of Microsoft Office suit of products, which meets the needs of novice as well as advanced users.

The following represents a comprehensive list of technology features (Venkatesh, 1998; Wagner and Bolloju, 2005) that could be supported in such a platform:

- Privacy and Control Mechanisms
- Security (Knowledge/information protection in shared environment)
- Ease of Use (with minimal or no training)
- Benign (user-friendly) Mechanisms to keep community members information (login, password, personal data changes) current.
- Real time addition of information (ex. Real time publishing)
- Content indexing (time indexed and/or topic indexed)

- Threading or hyper-linking Capability
- Content Management (Purging)
- Multi-mode (one to one, one to many and many to many) communications
  - Interactivity
- Convenience (any time, anywhere)
  - Open standards and interfaces (API's)
- Individualized treatment to its VC members (mass customization)
- Information (News vs. Knowledge) Management
  - Information Packaging aimed at meeting the needs of Communities of Practice (APQC, 2000)
    - Help Communities
    - Innovation Communities
    - Best Practices Communities
- Performance Management Capabilities (message approval, ratings, polling, etc.)
- Inter-community communications (networking based on open standards, not like the current situation where one needs a separate logins for each instant messenger.)

## Implications

Converting information to knowledge requires comparisons, connections of relationships, conversations (to determine what other community members think), and consequences (Davenport and Prusak, 1998). In this scenario, vendors will assume additional roles as navigators or facilitating agents of communities of knowledge (Evans and Wurster, 1997) using software such as “AntWorld” (Kantor and Menkov, 2000) that integrates humans as part of the enabling technology to help other humans navigate knowledge space.

Opportunities to facilitate the evolution exist for futurists who can define constructive communication paradigms for communities, for software vendors who can develop tools that support these new models, and for the academic community, which will be charged with preparing students for this future. Electronic communities will be defined more closely around common interests, needs, and applications. These groups, in turn, will create and maintain features and functions that are unique to these respective constituencies, even to the point of privatizing the intranet and requiring unique hardware, software, and transport configurations. The virtual constituencies will require transparent access and navigation across sub-networks. The underlying drivers of the Internet are control and, implicit in that, cost benefit. Two things seem likely: consumers not businesses, will lead the way, and the critical success factor will be the positive impact network-centric applications have on the customers. The common characteristic of these next networks will be a more customer-controlled environment established for a defined community of constituents--businesses--who are customers and suppliers to each other. This value of knowledge will be derived from its shared context. The 'new' networked community will not be a single community but hundreds, even thousands of communities. Each community will be virtual and consist of members that belong to a number of communities. This new community model will have distinguishing features that go beyond the present Internet:

- Every electronic community will be created by, for, and about its constituents.
- The underpinnings of the community will be in its functionality, the level of trust it engenders, and the sense of control it affords.
- New communication patterns and styles will emerge, shedding the common denominator of the current Internet for elaborate communication schemes.
- Members will compartmentalize their communications, not homogenize them.
- At least two objectives, alternatively, will influence communications characteristics: democracy and efficiency. The democratic leanings of community members will create communication paradigms similar to the current Internet. “Talk” will generally be free-flowing and non-directed and the *modus operandi* will be to overwhelm each topic with so much information that the "best" knowledge or decision will surely emerge. The communication paradigm based on efficiency will be more structured with each

communication measured for its value and contribution to the community. Here, the steps to the "best" knowledge or decision will be more scientific, more rigorous, more built upon previous knowledge.

Technical changes will be required to support these various communities and their communication patterns. The need for bandwidth, openness, predictability in the network, and ease of use are part of the evolution of Internet. But the "new" needs of the community constituents may not be so obvious. These needs, driven mostly by the nomadic nature of the community members, include: location independence, device independence, security, friendly interfaces, and partitioning of members' contexts. The strong experiential and reflective elements of knowledge make its underlying information content relevant and actionable.

Research is needed on a number of issues, including affiliation needs, uncertainty reduction, interactivity, dynamic experience, conflict reduction, low signal-to-noise, willingness to defending the boundaries of the community, and self-selected individual roles (information providers, facilitators, interpreters, leaders).

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# Analysis of Link Power based on Web Link Structure and Information Resource

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## Abstract

Popular websites as representing successful business in information use environment tend to become e-hubs that link large number of organizational agents for presenting and maintaining digital contents with supreme quality. Research and practice in digital information on the web have focused on finding and measuring artifacts, factors and attributes of web structure and contents from the perspective that information is a resource and property of products and services. This study identifies the relationships of the structure and resource on digitalized information in the Internet and examines how these effects are associated with structuration and resources of contents in the travel business websites. The logic of the view is theoretically and empirically analyzed based on the structurational theory and resource-based view through the link power of network density. This study provides managerial insights on organizations' virtual activities and systematic understandings about digitalized organizational information in the information use environment.

## Introduction

The web presence of a company is based on the network of web pages, where information and contents are connected and delivered across internal and external players, agents, and other stakeholders. Websites represent the status and strategy of a company's communication and technology (Cho and Joun, 2004). Information itself in the Internet has become the central part of values' creation for customers. Information and technology based on the web are also driving innovations in business processes intended to improve the possibility to survive, realize profit, and grow. In this sense, web strategies have led and been led by organizational activities, business processes and technology practices in the Internet age. Businesses use Internet (1) for intra-organizational applications, communication, and information sharing within the organization, (2) for creating virtual presence of the organization and analyzing responses, and (3) for conducting business with customers and business partners (Vadapalli and Ranamuthy 1997).

Recently, there has been a considerable interest in the growth properties of human interaction networks such as the World Wide Web (Albert et al. 1999). The emergence and widespread use of Internet created new business paradigm. Most of organizations have been opened their strategic channels for customers and suppliers through the Internet. A growing area of research in information science is the analysis of web-based documents, often using quantitative techniques (Thelwall and Wilkinson 2004), commonly known as Webmetrics. Much of these studies worked on Web links to reveal the structure and map of the World Wide Web.

In this research we attempted to conceptualize the characteristics and examine relationships of the link in perspective of network, websites' structure, and a resource-based view of web pages.

## Research Background

### Web Structure of Network Link

Technology has always been a central variable in organizational theory and information systems research (Orlikowski 1992). Successful websites provide new business values in response to present and future opportunities, especially within the domain of the web. New technologies and various application systems have been adopted to drive customer-oriented information for successful business. The importance of information systems strategies have been increasing as the role of technology becomes central to the competitiveness of enterprises' products and

processes (Levy and Powell 2000).

Despite the billion documents on the Web, nineteen degree of separation suggests that the Web is easily navigable. Big yet small. But the small world behind the Web is a bit misleading. To be sure, if there is a path between two documents, that path is typically short. But in the reality not all pages can be connected to each other. Starting from any page, we can reach about 24 percent of all documents. The rest are invisible to us, unreachable by surfing (Barabasi 2003).

Most of all, the core for successful and retentive competitiveness with technology and information use environment need to understand the structure and content of World Wide Web. Barabasi (2003) described the Web is consisted with Central Core, IN continent, OUT Continent, Tendrils, Islands, and Tubes. This structure is direct path; link. Most of the Websites has structured the incoming and outgoing links and internal links (Barabasi 2003; Kleinberg 1999; Li and Candan 1999). In viewing of website, Central core is a domain website which has many documents and URLs linked with internal link, IN Continent is consist of incoming links from search engine or authoritative web, and OUT Continent is target documents linked with outgoing link from Central Core. The Web site's structure based on link perspectives focuses on Central Core. It represents the domain and the characteristics of the website in the direct network.

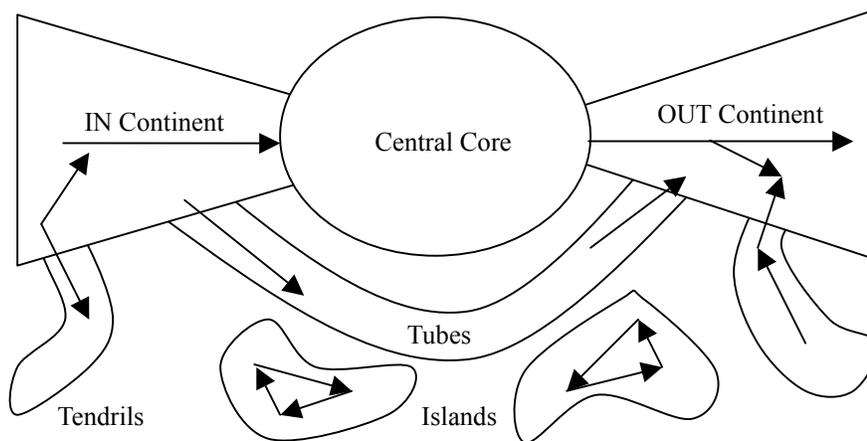


FIG. 1: THE CONTINENTS OF A DIRECTED NETWORK. (SOURCE: BARABASI 2003)

Link popularity is a part of understanding the Web structure and characteristics in serving information and contents. The link structure was obtained from a public available database created by crawler-based search engine to measure link popularity and this is a relatively mature Web-using area (Thelwall 2001a, 2001b; Thelwall and Wilkinson 2004). To travel the web, following links, returning some sort of information about the pages visited or the pages themselves. They are also known as spiders and bots. Remote site mappers and link checkers are special-purpose kinds of web crawlers. Crawlers that return HTML pages and the other files associated with web pages can be used for mirroring sites for archival purposes. As they download pages, they can also make the characteristics of the pages and files available for analysis <<http://irisresearch.library.cornell.edu/VRC/catcrawl.html>>. A search engine is a crawler based website that has millions (even billions) of individual pages in its database. Search engines are the most frequently-encountered web crawlers. Some examples of major search engines are: Google, Altavista, Excite, Lycos, and Hotbot. These kinds of search engines report the documents' popularity and accuracy. Internet users pursue to find the useful and fluent information through using Google, Altavista, Excite, Lycos, and Hotbot. The importance of target page by users is the result of search. The result of search is recommended pages or URL, favorite site, and popularity by rank. The rank is a promotional tools; alexa.com, google page rank, and etc.

Therefore the structure of website contains the incoming and out going link, domain and internal link, and is evaluated by popularity as performance. Alexa Traffic Rank (ATR) is visit frequency in user activities. Google

Page Rank (GPR) means the accuracy of correspondence to provide information about the number of page views and number of users that Web sites receive (<http://www.Alexa.com>).

*H1*: Total link with web link positively affects accuracy rank (GPR: 1 – low grade, 8 – high grade)

*H2*: Total link with web link negatively affects the number of traffic rank (ATR: 1 – high rank)

#### **Information Resource based on Links**

Recently the RBV is the dominant theoretical perspective in strategic management literature, and focuses on costly-to-copy attributes of a firm that are seen as the fundamental drivers of performance (Bharadwaj 2000). The RBV which has resource heterogeneity and immobility concepts is a potential framework for augmenting the conceptual analysis of IT's effects on firm performance (Christiaanse and Vankatraman 2002; Mata et al. 1995). IT has been mentioned for its possible role in creating sustained competitive advantages for firms (Mata et al. 1995).

Resources are either tangible or intangible in nature. With increasing effectiveness, the set of resources available to the firm tends to become larger. Individual resources may not yield to a competitive advantage. It is through the synergistic combination and integration of sets of resources that competitive advantages are formed. A capability is the capacity for a set of resources to integratively perform a stretch task or an activity. Through continued use, capabilities become stronger and more difficult for competitors to understand and imitate. As a source of competitive advantage, a capability "should be neither so simple that it is highly imitable, nor so complex that it defies internal steering and control." (Schoemaker and Amit 1993, 1994). The ability or capacity of a firm to turn its resources into customer value and profits is usually called a capability or competence (Afuah and Tucci 2000). Grant (1991) distinguishes between resources and capabilities and provides a classification of resources into tangible, intangible, and personnel-based resources. Resources are inputs into a firm's production process, such as capital, equipment, and the skills of individual employees, patents, finance, and talented managers.

In resource-based views, Link is connected with information and contents, individuals and organization, tangible and intangible resource, and technology and human. Links include organization's resource and represent the organization's capability. Link resource is what and where to connect based on the direction network. There are a lot of links in perspective of resource-based views. To conceptualize the structure of the Web focus on the direction. And the links of incoming and outgoing suggest the feature of web site; hubs, authority, and community (Barabasi, 2003). Most of all, the WWW structure is from the website structure. The nature of link resource is needed to analyze the documents or pages.

*H3*: Total link with web link positively is affected by direct link (*H3\_1*: incoming, *H3\_2*: outgoing link)

*H4*: Total domain positively affects web link structure but link negatively affects

*H5*: Web link structure positively affects accuracy rank (GPR: 1 – low grade, 8 – high grade)

*H6*: Web link structure negatively affects the number of traffic rank (ATR: 1 – high rank)

## **Research Methodology**

### **Model and Method**

The model of this research divided five dimensions; incoming and outgoing link and target domain in perspective of web documents, and network density of links by the structure in perspective of web sites (Kleinberg 1999; Li and Candan 1999). To improve the rank of web sites or pages is the key of successful business in the practice area. The rank is measured by the traffic, a number of members, score or point of satisfaction, and information quality of web sites. Rank in the major search sites is successful strategy for ongoing business and a set of ranking with given set of attribute (Salo and Punkka, 2005).

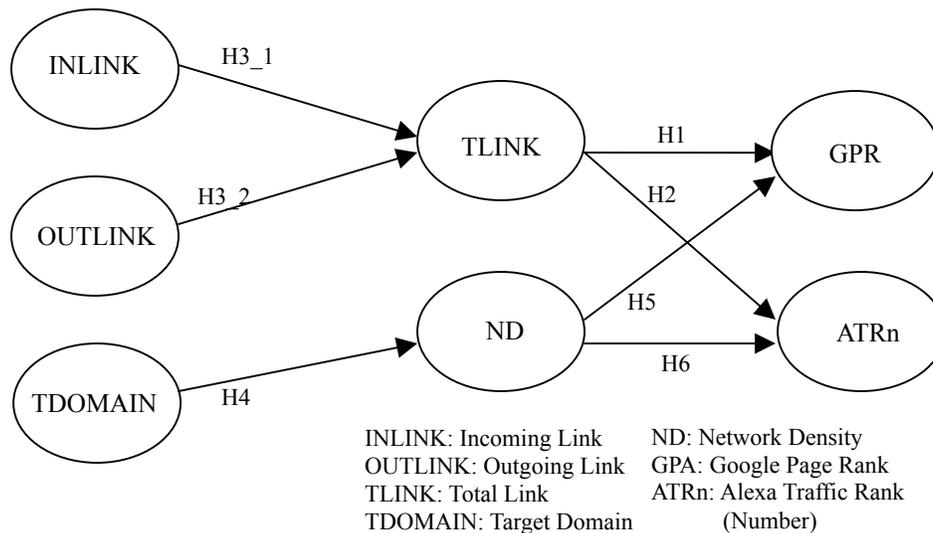


FIG. 2: RESEARCH MODEL OF WEB LINK STRUCTURE

Marsden (1990) defines the operational definition of network density as the mean strength of connections among units in a network. Density in social network density is the general level of linkage among the point in a graph (Scott, 2000). The percent of ties that exist in a network out of all possible ties. A density of 1.0 implies that every alter is connected to every other alter. A density of 0 implies that no alter knows any other alter (McCarty, 2002).

Network density ( $\Delta$ ) was calculated by employing the following mathematical formula:

$$\text{Network Density: } \Delta = \frac{\sum X_{pd}}{\alpha n(n-1)/2}$$

Where n= the number of nodes

$\alpha$ = highest possible value of relationship strength

$X_{pd}$  = relationship variable between node p and d

In this formula, the relationship strength is a perception between two people in social science. Therefore the relationship in viewing of network is  $\alpha = 1$  because the relationship strength is the connection between two nodes connected with link.

Network density reflects the overall proportion / strength of connections between network members (Sohn and Leckenby, 2004). In the Website the structure of linkage forms one of the architectures as players. Each of the websites or pages connected linked by URL. The connections of them make the WWW and the core of the Internet. Measuring the network density of link is one of the artifacts to conceptualize the web sites and pages and understand the flow and structuring process of information and technology.

The link structure was obtained from a public available database created by crawler-based search engine to measure link popularity and this is a relatively mature Web-using area (Thelwall 2001a, 2001b; Thelwall and Wilkinson 2004). Page Rank is an excellent way to prioritize the result of web keyword searches of its citation (Brin and Page, 1998). Page Rank means the accuracy of correspondence. Web usage information is utilized to provide information about the number of page views and number of users that Web sites receive. This data is to help people navigate the Web more efficiently by giving them all the information they need to make informed decisions about the sites they visit (<http://www.Alexa.com>).

This is used by Optitools 3.x in crawler-based search engine as formative method. Each of the web sites analyzes total link (TLINK), incoming links (INLINK) and outgoing links (OUTLINK), and target domain

(TDOMAIN) as formative analysis in perspective of resource. Network density (ND) is measured by total link and domains. And Alexa Traffic Ranking (ATR; 1 = top rank) measured by Alexa.com and Google Page Ranking (GPR; 7 is high grade) by Google as popularity compare with them.

**Data Collection**

Corporate cost-management consultants have found that travel and entertainment expenses are the third-largest controllable expense in business organizations (Johnston and Sherlock 1999; Chircu and Kauffman 2000). The tourism industry seeks to generate international demand for local product. Access to global market is critical. The tourism industry is an information intensive industry. The generation, gathering, processing, application and communication of information are important for the day-to-day operation of tourism businesses, making the effective use of information technology critical (Dargan and Prosser 2001).

Analyzing the tourism industry presents various interesting aspects both academically and practically. Corporate cost-management consultants have found that travel and entertainment expenses are the third-largest controllable expense in business organizations (Chircu and Kauffman 2000). The research samples are 190 (n + 3<sup>rd</sup>) of 697 travel agent companies chosen from favorite and top portal site (naver.com) in Korea. The available samples are 180 of 190 samples. The sampling used stratified sample method in business decision which user or surfer in the WWW searches and choose and click the URL in one of the search results (Lapin, 1987).

The leading search engines are 5 search sites to analyze the link popularity; Google.com, Alltheweb.com, Altavista.com, MSN.com, and Yahoo.com.

**Data Characteristics**

Table 1 as a result of descriptive analysis summarizes mean, maximum, and standard deviation of total link (TLINK), incoming link (INLINK), outgoing link (OUTLINK), and target domain (TDOMAIN) of 180 travel agencies websites. The mean of link in the sample websites have 54 Total links (TLINK), 6 incoming links (INLINK), 48 outgoing links (OUTLINK), and 23 target domain (TDOMAIN).

As a result, the incoming link is smaller than outgoing link. It means most of the websites focus on outgoing link to find information resource and reliability of information from other web sites. Additionally a few of authoritative websites have many incoming links. This descriptive result of the 180 samples has shown the characteristics of the Web.

TABLE 1: DESCRIPTIVE RESULTS FOR SELECTED VARIABLES

	Mean	Maximum	Std. Deviation
TLINK	54.23	1272.00	142.84
INLINK	5.79	163.00	17.51
OUTLINK	48.44	1270.00	134.09
TDOMAIN	23.93	465.00	43.94

As Fig. 3, the characteristics of sample websites have shown the minimum and infinitesimal authorities site by Barabasi (2003). The total link is gathering the 10th and target domain is concentrating 20th. And figure 4 reports descriptive of rank of visit traffic as information users' activities and rank of information accuracy and accessibility.

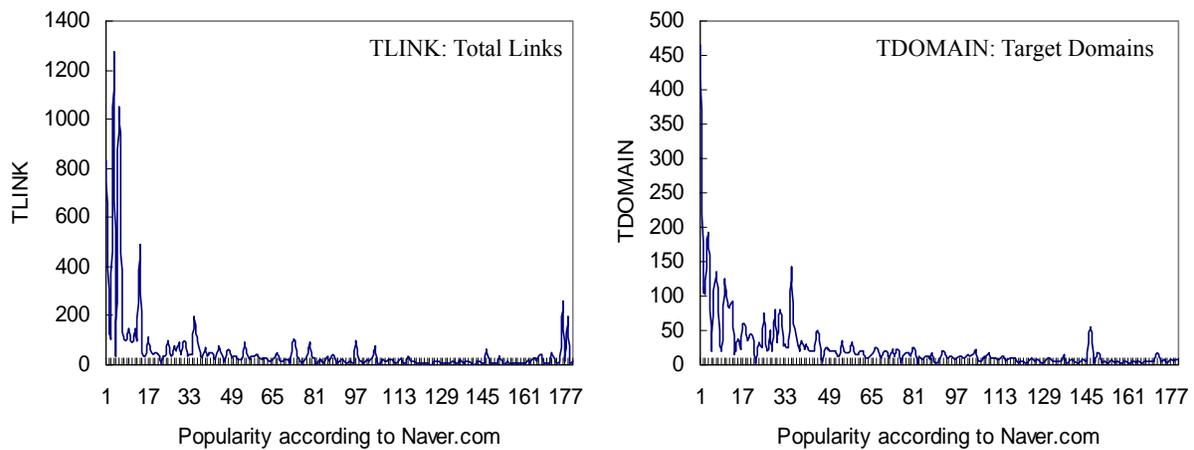


FIG 3: TOTAL LINK AND TARGET DOMAIN FREQUENCY

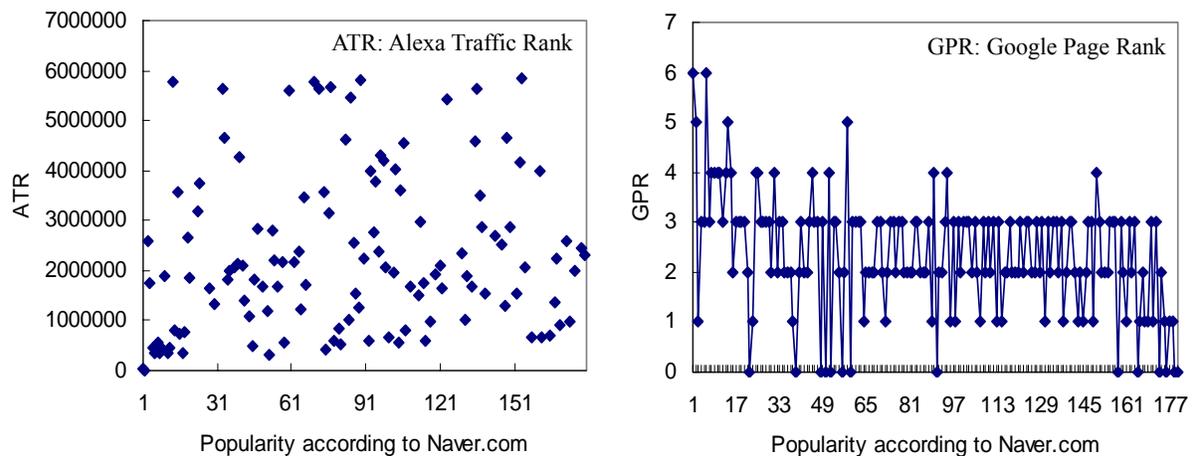


FIG 4: ALEXA TRAFFIC RANK AND GOOGLE PAGE RANK

## Results

Relationship of web link structure and information resource based on direct network has been measured by the Pearson correlation coefficient ( $\gamma$ ) which measures the strength of a linear relationship between two variables. Among the nine variables selected, there are 36 pairs – thus 36 coefficients. In 36 coefficients, available coefficients are 24 pairs in  $p < .01$  and 6 pairs in  $p < .05$ .

In perspective of link and domain, The correlation between TLINK and OUTLINK, TLINK and INLINK, and TLINK and TDOMAIN is positive indicating that outgoing links increase so do a number of total links.

The value of network density is modified Log function (LOGND) and Absolute Log function (ABSLogND). In viewing of network density, ABSLogND is proper to understand the web structure. The correlation between ABSLogND and TLINK and ABSLogND and TDOMAIN is positive indicating that network density to understand the web structure increases a number of total links and target domain. As performance of Alexa Traffic Ranking (1 – top rank) and Google Page Ranking (7 – high grade), the correlation between ABSLogND and ATR and TLINK and ATR is negative indicating that network density and total link increases a traffic ranking. And the correlation between ABSLogND and GPR and TLINK and GPR is positive that total link increases a grade of page ranking.

TABLE 2: PEARSON'S CORRELATION RESULTS

	1	2	3	4	5	6	7	8	9	10
1. TLINK	1.000									
2. INLINK	.546(**)	1.000								
3. OUTLINK	.994(**)	.451(**)	1.000							
4. TDOMIAN	.679(**)	.577(**)	.648(**)	1.000						
5. ND	0.109	.366(**)	0.068	-0.088	1.000					
6. LogND	-.191(*)	0.014	-.205(**)	-.583(**)	.475(**)	1.000				
7. ABSLogND	.339(**)	.319(**)	.319(**)	.645(**)	.209(**)	-.627(**)	1.000			
8. ATR	-.226(**)	-.230(**)	-.211(**)	-.255(**)	-0.009	.181(*)	-.221(**)	1.000		
9. LogATRn	-.349(**)	-.384(**)	-.321(**)	-.499(**)	0.026	.286(**)	-.341(**)	.811(**)	1.000	
10. GPR	.371(**)	.215(**)	.368(**)	.428(**)	-.173(*)	-.382(**)	.297(**)	-0.120	-.304(**)	1.000

\*\* Correlation is significant at the 0.01 level

\* Correlation is significant at the 0.05 level

As a result, there are relationships among websites link frequency, web link structure, popularity. Further more, although the sample size is small in a part of million or billion web page, network density is positive indicating to understand the web link structure and ranking in one of website' performances.

This is employed the structural equations modeling with AMOS (Arbuckle and Wothke, 1999). A structural model was estimated to assess path and explained variance estimates. The *Hypothesized* structural model yield a good fit ( $\chi^2 = 30.261$   $df = 7$ ,  $p < .01$ , CFI = .99, TLI = .97, RMSEA = .13). Figure 5 shows, 7 paths were significant (H1, H2, H3\_1, H3\_2, H4, H5, and H6). In sum the *Hypothesized* model was mostly supported.

In structuring process, network density of web link structure as technology world have been influenced by target domain. And network density world have an influence on performance of rank with traffic frequency rank by Alexa and keyword accuracy rank by Google.

Additionally in direct network by information resource, according to total links summing of incoming and outgoing links, total links world have an influence on traffic frequency rank by Alexa and keyword accuracy rank by Google.

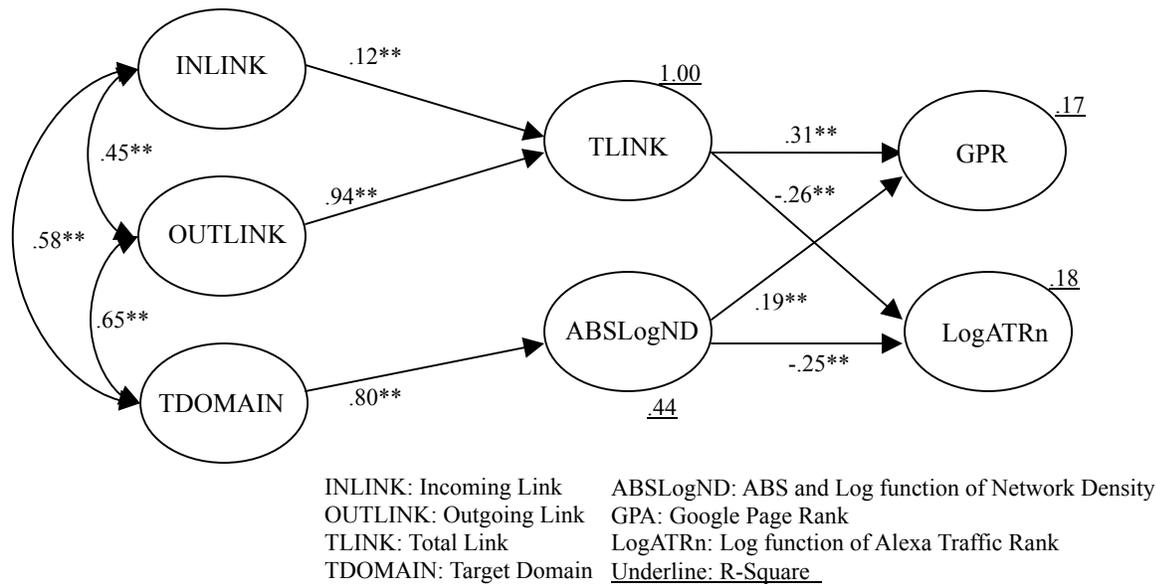


FIG. 5: STRUCTURAL MODEL RESULTS

## Conclusions and Future Work

Their websites in the Internet have been represented of the state of nowadays' business process and strategy for tomorrow's successful performances and outcomes using information technology. The connection in the network structure of the Internet has shown the backbone and the relationship between websites shown the link in the web pages; incoming and outgoing link. The link of web pages plays an important role of defining the characteristics of relationships in the websites.

Relationships of link power effects the ranking of websites' traffic as Alexa.com and the grade of page ranking as Google.com. In viewing of the web link structure, network density is available to figure and form the web link structure as an artifact of direct network. As shown in figure 5, it found the four strong relations and four weak and two negative relations. But two negative relations is a result of just the ranking number. Therefore traffic ranking is positive effect to improve the rank. In a direct network, we found that most of website except the minimal and infinitesimal authorities promotes the outgoing link to find the good information provider or web service in B2B and B2C.

The limitation of this paper focused on not the hubs and communities but the authoritative website. It is a part of the commercial one. And each of information resource is not the nature of resource but the direction.

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# Why U.S. is Falling Behind on High Speed Internet

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## Abstract

**The high speed Internet with wired or wireless broadband will certainly leave no field untouched. While several Asia and Europe countries have quickly adopted and developed broadband, the U.S. lags behind the move. As Productivity growth and military power are now driven primarily by information systems, which are becoming heavily Internet-dependent, the high-speed telecommunications problem is becoming a major bottleneck in the U.S. and world economy.**

## High Speed Internet

High-speed Internet technologies are all about freeing people from having to be connected with regular telephone lines or cables, and letting them have speedier data connections than they ever imagined. The so-called broadband Internet encompasses all evolving high-speed digital technologies that provide consumers integrated access to voice, high-speed data, video-on-demand, and interactive delivery services, are a fundamental component of the communications revolution.

### The High Speed Internet State

According to BusinessWeek, South Korea, Japan and some other nations or regions such as Canada, Singapore, Hong Kong, Taiwan, Belgium, Iceland, and Denmark have quickly adopted policies to promote broadband years ago. In contrast, no U.S. administration has yet endorsed a comprehensive plan. In 2000, America had the world's third-highest broadband adoption rate. In 2003, it dropped to 10<sup>th</sup> place.

Currently, the U.S. phone companies sell 500K bit per second to 1 megabit digital subscriber line (DSL) connections for around \$30 a month, and the cable companies offer cable modems with maximum speeds of 3 megabits for \$40 ~ \$45 a month. Broadband is available to 89% of all U.S. households, but only 18% subscribe today. While the Europe's speeds and penetration are similar to those in the U.S., in South Korea, the recognized world's broadband leader, there are 73% of households subscribe to high-speed Internet. Most Koreans pay \$27 a month for a connection speed of up to 3 megabits. A few thousand choose to pay \$52 a month for a 20-megabit advanced DSL (ADSL) connection, which is much faster and cheaper than anything available to Americans. Japanese can get some of the fastest and cheapest broadband service in the world up to 26 megabit for about \$30 a month.

### The Wireless Internet

Actually, high speed Internet technologies all started with digital cell phones a decade ago, and now has exploded into a panoply of radio technologies – from wireless local area networks (WLAN) to smart antennae, ultra-wide band transmission and mesh networks. The 802.11b (Wi-Fi) standard created an entirely new market for wireless networks during the depth of telecom's worst recession and the time when the broadband Internet started booming. Wireless Internet networks are being deployed to previously underserved areas and are creating new competition for cable and DSL. According to Telecommunications' Future 2003-2008, analysts at Insight Research Corp. predict that the market for products and services based on the 802.11 specifications will grow from revenue of \$7 billion this year to \$44 billion by 2008.

## What Is Holding Up U.S. High Speed Internet

There were sayings that the U.S. high speed Internet was lag behind and moving slowly because of narrowed ranges of spectrum and interferences of useful frequencies. Demanded spectrum and frequencies for broadband communications are governed tightly by FCC. It sounds that technical limitations are major curbs of broadband

development in America. Historically speaking, the regulations governing the separation of broadcasting channels, to prevent neighboring stations from each other, were established 70 years ago, when the technical solutions were highly limited at the time.

#### **Not a Technical Issue**

Today, a radio is more likely to be a piece of software burned into a digital signal processor chip hopping from channel to channel during a nanosecond, while seeking gaps through which to send bursts of data. The channels of current broadband to communicate can be crammed with no buffer zones between them. Also, when such adaptive digital radios are allowed to co-operate with one another, the network's capacity can actually increase – rather than decrease, as was long believed with every new radio added. Therefore, the interference is irrelevant, and bandwidth, as a measure of communication capacity – is also irrelevant. So we believe that the biggest problem inhibiting broadband in the U.S. is the habit of reserving various radio bands for specific services. Historically, that made sense when it was hugely expensive to build radios that could be turned to more than a few adjacent bands. Today, digital radios that can dynamically jump all over the spectrum are to be had for the price of a microchip.

#### **What Is Holding Up**

As explained above, the so-called spectrum and frequency interference are not the reasons blocking Internet communications. The faster Internet speeds in other countries are less about technological prowess, they are more about policy. A clear fact in Korea or Japan that the government made the deployment of broadband services a national priority. Plus, Korean government deregulated what had been a monopolistic phone system and opened the market to competition. That stimulated a race among providers to wire up the nation quickly. Moreover, those countries are more densely populated than U.S., it made broadband deployment much easier and cheaper.

In the U.S., in addition to larger territory and population in the country, there are not sufficient broadband services and applications provided, such as online movies, concert or games that need higher speeds. More importantly, the conserved development is largely confined by U.S. telecommunication regulations. For instance, the Bells, the major U.S. telecom technology developer complain that archaic rules designed for traditional telecoms services rather than the Internet, curbed and discouraged them from providing faster DSL services. They further argued that those rules are ambiguous because a different set of overlapping regulations still requires them to share their lines with rivals at government-mandated prices. So far, the U.S. is not having a comprehensive and strategic high speed Internet plan. The U.S. Congress is unlikely to force politically powerful Bells to share their networks, even through lawmakers are expected to rewrite the telecom industry's regulations next year.

Another hitch for moving U.S. broadband quickly is that the best radio spectrum for wireless Internet isn't available. It is being used by TV broadcasters for analog transmissions. American broadcasters have been given another set of airwaves, for digital TV, but they're not eager to forfeit their freebie. (Catherine Yang, September 2004). As some of U.S. telecom developers complained that the wireless broadband is currently allocated to wrong spectrum and the result is hampering the growth of the technology, according to former Federal Communications Commission (FCC) chairman Reed Hundt (Roy Mark, April 2004). The problem is said that wireless broadband is being designed where the radio frequencies are very high, and as a result, the radio waves can not penetrate buildings. As this rule was defined by the 1996's Telecom Act, the U.S. congress has shown an increasing interest in reforming this rule.

### **U.S. Catch Up Plan**

To have any hope of joining the world's broadband vanguard, more deregulation is the key. The U.S. must create a viable third competitor (Catherine Yang, Sept. 2004). According to FCC, the U.S. aims to classify both the phone companies' DSL and cable operators' cable-modem operations as "information services". The Commission recently adopted its fourth report on the availability of advanced telecommunications capability in the United States, and that advanced telecommunications capability is being deployed on a reasonable and timely basis to all Americans. (FCC News Report, Sept. 2004)

FCC reported the significant development of new access technologies that has taken place. It highlights the growth in Wi-Fi Internet access hotspots, WiMax, third-generation mobile phones, personal area networks, satellite technologies, fiber to the home, and broadband over power lines, in addition to more familiar cable modem and DSL

services. Recently, FCC also described the development of new Internet-based services, such as voice communications over Internet protocol (or VoIP).

Chief among these rival services, 802.16-WiMax looks most promising. It can extend broadband wireless over longer distances and at higher speeds than current Wi-Fi or Bluetooth systems. Its access range is up to around 30 miles (48 kilometers), compared to Wi-Fi's 300 feet (91 meters) and Bluetooth's 30 feet. It supports data transmission speeds up to 75Mbps (bits per second), compared to the popular 802.11b Wi-Fi standard's 11Mbps or the 802.11a's 54Mbps. In addition to its distance and speed advantages, WiMax doesn't require line-of-site transmission. Many experts expect WiMax service to be deployed in rural areas, where high-speed cable infrastructure is either poor or nonexistent. Some also see opportunities to use the technology for backhauling traffic between Wi-Fi hot spots, as well as for creating large wide-area hot spots.

The recent FCC reports demonstrate that the United States is making substantial progress in closing the gaps in access for traditionally underserved areas. Those in rural areas, those with low incomes, and those with disabilities – who stand in particular need of advanced services—are finding advanced services more available. Federal and State governments can provide other incentives to create a third rival. Government can attract broadband to populated regions without tax dollars by creating pools of local buyers – a measure Canada has adopted to reach its vast rural expenses.

## **The Future Of Broadband**

Over the next few years, broadband connections will go into the air, the home, the taxicab, and the all businesses (Gabriel Allan and Evan Schuman, *Businessweek*, September 2004). High speed Internet will include a whole new suite of concepts. Those concepts will include everything from Internet security devices to audio and video, from video collaboration and file sharing to distribute computing and data storage. And the much-ballyhooed convergence of voice, data and multimedia also will be a factor.

The future of communication is high-speed, wide-band digital with interactive data and voice,” says David Robinson, president of the Motorola broadband communications sector. “A company that offers principally video or data will be able to offer competitive voice. For the business user, that will mean more control, more variety and more choice.” The future of broadband offers great opportunities, as long as executives think about and plan for it in advance. Executives will have exciting new tools for sales, marketing, product development and other business tasks that can be enhanced or simplified by using high speed Internet. But issues of security, robustness, pricing and coverage will continue to arise, and it's important to watch the changing landscape.

While several broadband leading countries are offering up online digital content market, which includes gaming, music, and video, most U.S. telecom providers are only just beginning to roll out services. The high-speed Internet connections running at speeds of 10 to 20 Mbps won't become available to most consumers for at least three to six years, according to Walt Megura, general manager of Nortel Networks.

## **Conclusion**

America lags behind several current leaders in the world on high speed Internet development. The cause is less about technological prowess and more about policy. Policymakers should make structural reforms in industry, policy, and the U.S. regulatory system. Appropriate measures include structural separation of switching, enhanced services, and data transport in the telephone industry; divestiture of content from transport in the cable television sector; mandatory open interfaces for interconnection; increased financial transparency and disclosure; and reforms in regulatory systems to increase their efficiency, high technology expertise, and political independence. In short, more deregulation is the key. A new era in the evolution of broadband is approaching, but it won't happen overnight.

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# The Trends of IT Offshore Outsourcing to India: A Bird's Eye View

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## Abstract

With the accelerating globalization of the Information Technology (IT) solutions the paradigm of IT Outsourcing has become the media's punching bag du jour. The myriad advantages of the concept gratify this popularity. With the rapid progress in the global outsourcing, companies are embracing different models of outsourcing. Of all the models, offshore outsourcing has been particularly popular in the context of outsourcing to India. Starting with services like providing the talent pool, project execution, now the trend of offshore outsourcing is moving towards the higher value echelon of the IT value chain with activities like product design and development, consulting among many others. This paper provides a benefit-and-risk framework and presents different models of offshore outsourcing. The paper also discusses the paradigm of offshore outsourcing by providing a bird's eye view of the major IT services outsourced to India and predicts the possible changes of the nature of the services outsourced to India.

## Introduction

Outsourcing can be defined as an outside company's provision of the products and services associated with a major function or activity of the user organization [2]. In simple terms, outsourcing consists in conducting one or more organizational activities, using external agents [10]. Fuelled by the need for business flexibility to respond quickly to changing markets outsourcing brings with itself, inter alia, the advantages of improving the company's focus on its core competency, gaining access to the world class society, reducing investments in the non-core activities of the company, reducing the risks by sharing the investments, improving the production, abstraction of delays, creation of jobs due to the growing economy and so on. There are also challenges and associated risks as mentioned in Table 1. In the current scenario, where the recession of the US economy left no part of the world untouched, many companies are looking at outsourcing as a way to improve their bottom line while maintaining or even improving the service levels.

TABLE 1: BENEFITS ANDE CHALLENGES/RISKS OF GLOBAL OFFSHORE IT OUTSOURCING

<u>Benefits</u>	<u>Challenges/Risks</u>
<ul style="list-style-type: none"><li>• Lower cost</li><li>• Greater focus on the company's core competency</li><li>• Reduced project timelines/time to complete/abstraction of delays</li><li>• Increased IT department productivity</li><li>• Competitive advantage</li><li>• Internal customer satisfaction</li><li>• Improved quality of services</li><li>• Access to technological expertise</li><li>• Gaining access to the world class society</li><li>• Reducing investments in the non-core activities of the company</li><li>• Reducing the risks by sharing the investments</li></ul>	<ul style="list-style-type: none"><li>• Managing communication</li><li>• Cultural differences</li><li>• Lack of internal processes for specifying work</li><li>• Lack of internal customer management skills</li><li>• Additional costs including vendor selection, transition cost, legal/contract costs amongst others</li><li>• Service debasement</li></ul>

## Offshore IT Outsourcing to India

In the last decade, a tremendous growth and change in e-business has been driving the software industry to move to countries like India and Ireland [12]. India has been the favorite destination for many companies around the globe for offshore outsourcing because it cuts application development and maintenance costs while delivering the highest quality work and improving productivity. Approaches have ranged from subcontracting portions of software development projects to third-party companies or subsidiaries, to establishing truly virtual development teams [25]. With the rapid growth of outsourcing, several mix and match models of outsourcing are emerging. Companies can choose an on-site arrangement, off-site processing in the outsourcer's facility, near shore processing in a contiguous country, or an offshore model in which the processing is done in a country with a very low-cost structure [8]. The classification is elucidated in Table 2. Offshore outsourcing has been particularly a more suitable model for India; literature suggests – offshore outsourcing in India is not only the most popular management practice but also covers around 80 per cent of the offshore outsourcing market [5, 25].

TABLE 2: TYPES OF OUTSOURCING

	Onsite	Off-site	Near shore	Offshore
Cost savings	Low	Moderately low	Moderately high	High
Location of outsourcing	Close	Moderately close	Moderately remote	Remote
Outsourcer hiring the customer's personnel	Yes	No	No	No
Outsourcer hiring the customer's equipment	Yes	No	No	No
Level of control on the outsourcer	Low	High	High	Low
Level of cost saving for the customer	High	Low	Moderate	High
Focus on the relationship with the outsourcer	High	Low	High	High

Offshore IT outsourcing is an important and emerging field in the area of information systems [18]. IT outsourcing is defined by Loh and Venkatraman [13] as “the significant contribution of external suppliers in the physical and/or human resources associated with the entire or specific component of the IT infrastructure in the user organization”. Rajkumar and Mani [20] define offshore outsourcing as: “When the supplier of software development is from another country than the firm that decides to outsource Information systems”. Smith, Mitra & Narasimhan [22] define offshore outsourcing as software development that is done in other countries than those that have traditionally dominated the software development industry. Firms entering into offshore outsourcing aim primarily to gain access to highly skilled professionals at a reduced cost [1].

Bill Gates' prediction in 1999 that “India is likely to be the next software superpower” has largely been realized [6]. Terdiman and Karamouzis [23] claim that today, India dominates 80-90 per cent of the total of offshore development revenue worldwide and is expected to be the key leader in offshore outsourcing in the next 5 years. India's outsourcing export revenues now exceed \$7 billion, making it the country's largest export, and the country is home to some half a million IT professionals [17]. The other main factors fanning the potentials of IT outsourcing in India are - abundant English speaking talent pool, improving infrastructure, geographic location – leveraging time zone differences, galloping growth of the India economy, greater thrust of the government in supporting the IT sector et cetera. A detailed SWOT (Strength, Weakness, Opportunity and Threat) analysis of offshore IT outsourcing is given in Table 3. In the light of the present economic downturn, the primary motivation behind offshore outsourcing is cost reduction, especially lower per capita labor costs [7, 21]. Software development costs in India is estimated to be 30-40 per cent lower than those in developed markets [11]. Evident is the fact that the vast wage differentials are prompting companies to move their labor-intensive service jobs to countries with low labor

costs: for instance, software developers, who cost \$60 an hour in the United States, the world’s biggest offshorer, cost only \$6 an hour in India, the biggest market for offshore services [2].

TABLE 3: SWOT ANALYSIS OF OFFSHORE IT OUTSOURCING TO INDIA

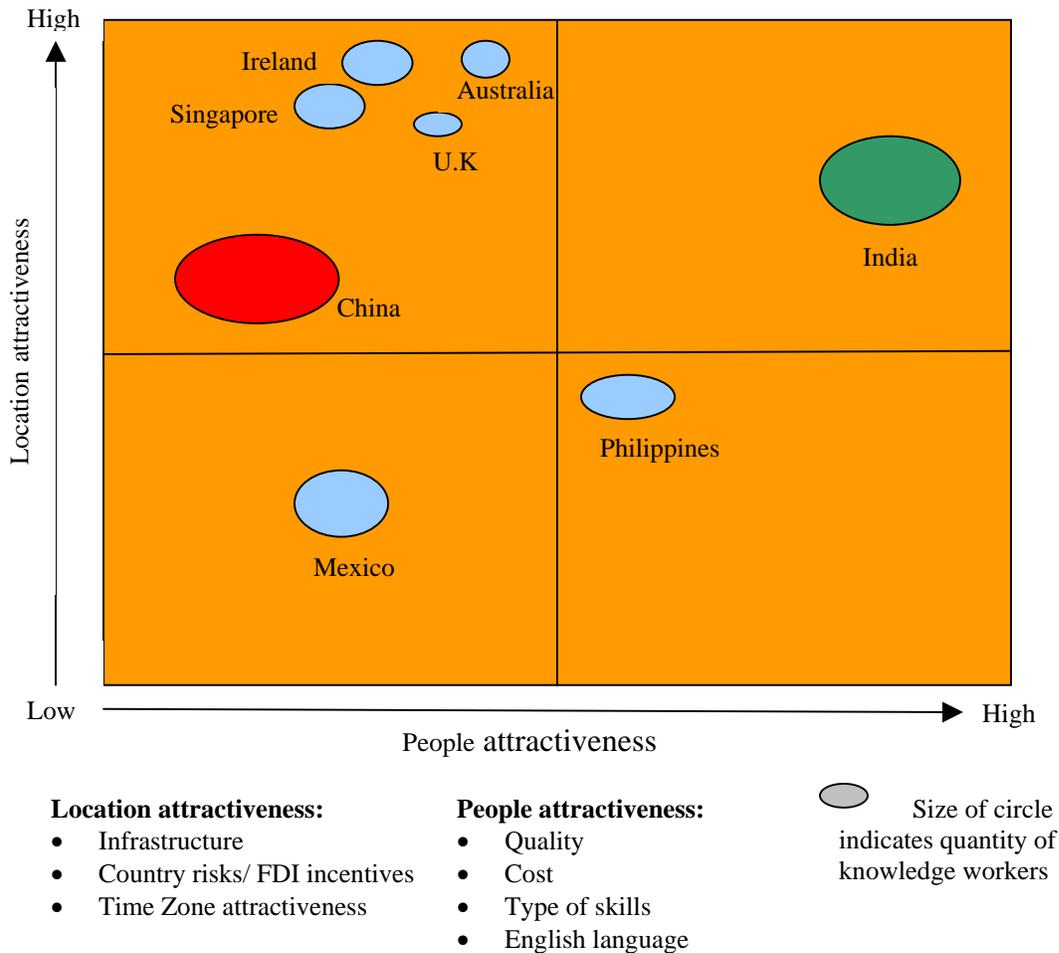
<p style="text-align: center;"><b><u>Strengths</u></b></p> <ul style="list-style-type: none"> <li>• Access to a diverse set of skills and support for new technologies</li> <li>• Competitive costs</li> <li>• Widespread use of the English language</li> <li>• Mature, experienced and stable vendors</li> <li>• Experience with remote engagement management</li> <li>• Ability to normalize demand for staffing</li> <li>• Accelerated delivery/reduced project timelines (leveraging time difference)</li> <li>• Highly trained workforce</li> <li>• Appreciation for software quality</li> <li>• Development disciplines</li> <li>• Government policies &amp; Taxation</li> </ul>	<p style="text-align: center;"><b><u>Weaknesses</u></b></p> <ul style="list-style-type: none"> <li>• High communication cost</li> <li>• Project management</li> <li>• Transition</li> <li>• Collaboration</li> <li>• Cultural issues</li> <li>• Continuing geo-political uncertainties</li> <li>• Sometimes intensive training needed for developers</li> </ul>
<p style="text-align: center;"><b><u>Opportunities</u></b></p> <ul style="list-style-type: none"> <li>• The offshore market expanding into the activities at the higher end of the value chain</li> </ul>	<p style="text-align: center;"><b><u>Threats</u></b></p> <ul style="list-style-type: none"> <li>• The rise of alternative geographies</li> <li>• Communication</li> <li>• Potential for backlash</li> <li>• Knowledge transfer</li> <li>• Time zone difference</li> <li>• Building engagements too rapidly</li> <li>• Cultural divergence</li> <li>• Immaturity of infrastructure*</li> <li>• Political flux*</li> <li>• Geographical distance between vendor and client*</li> </ul>

\*Challenges less acute in nature

However, it is worth mentioning that with the advent of Quality System Standards, quality is the new catchphrase of the industry. By meeting and exceeding the quality of the service offering, quality has become a more attractive grasp than the lower cost benefits involved in outsourcing IT services to India. Forrester research cited by [15] shows that almost two out of five Fortune 500 firms currently outsource some software requirements to India to gain advantages of the high quality IT workforce and low cost base. As mentioned earlier, the other grand advantages outsourcing has bestowed to the global business community is the strength to upgrade their core business while embracing the cutting edge technology. It is worth mentioning that as the market matures, opportunities based on the traditional rationale for outsourcing i.e., economies of scale and scope, are diminishing in value. Larger firms now outsource for strategic reasons to leverage their business benefits of IT/IS [4].

### Value Chain of the IT Outsourcing to India

In spite of the emerging threats to the existing domination in the offshore IT outsourcing arena, there are huge opportunities for India to continue with the on going state of dominance. Please refer to Fig. 1. Apart from IT, Indian companies are contributing a variety of outsourced services varying from customer care, transcription, billing services and database marketing, to tax processing, transaction document management, Web sales/marketing, accounting, telesales/telemarketing, HR hiring and biotech research.



Source: McKinsey analysis.

FIGURE 1: INDIA'S ATTRACTIVENESS VIS-À-VIS ITS CONTENDERS [17]

Value' activities are physically and technologically distinct activities a firm performs and are the building blocks by which firms create products valuable to its buyers [19]. Today, large companies are outsourcing a greater range and depth of services than ever thought possible. Recent innovations, e.g., offering by Application Service Providers, are providing additional opportunities for the outsourcing of functions that previously they would never have contemplated [9,3]. At present, application development is the most frequently outsourced activity. Other functions commonly sent offshore include call center, system administration/support and help desk. Many Indian vendors also offer management consulting services, infrastructure outsourcing services, help desk and desktop outsourcing services. The Indian IT-enabled services industry is set to move well beyond contact center, low-skilled work driven by the early success of the first movers [17]. Please note that in this paper, the analysis of the value chain does not include all the links in the value chain but provides an overview of the type of outsourcing contracts, the services offered.

## Trends of Offshore IT Outsourcing in India

The offshore IT outsourcing in India mainly consists of Product Component Outsourcing, Process Component Outsourcing and Total Outsourcing. Product Component Outsourcing deals with offshoring a part of the project to the client. This could be particularly suitable when the client may not possess the technology or skills needed for the complete assignment/ project. Process Component Outsourcing means outsourcing a part of the function of one or more of their processes. Complete Outsourcing deals with outsourcing all the phases of the project including the activities like design, coding, implementation et cetera. The next direction for the Indian vendors is to continue to move up the value chain by offering services related to Process Component outsourcing - architecture, design, and development and technology strategy services. Whereas in the past, Indian suppliers focused primarily on delivering application-related services, they now offer everything from applications support to infrastructure management (including data center outsourcing, network management, data center consolidation, strategic consulting, and help desk outsourcing) to various flavors of business process outsourcing (BPO) — or IT-enabled services, as they are typically termed [14]. This implies - in addition to its overall growth, the market is also diversifying and expanding to encompass non-application-related services. The top-tier Indian vendors exhibit a flair to move up the value chain and offer high-value consulting and project management skills in order to compete with US-based IT services firms. In addition, the current trend of moving to the higher end of value chain involves activities like product design, adding value thorough the R&D, predicting the future directions of technology. It makes business sense for Indian firms to move faster on the value chain ladder and get more involved in research & development (R&D), product creation, brand management and strategic consulting, and providing more net centric and ecommerce type interactive services to customers [18]. The other areas into which IT offshoring is likely to expand are – legacy, e-business application integration.

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# **Does the Indian Business Process Outsourcing (BPO) Experience Provide the Role Model for Information and Communication Technologies (ICTs) in Developing Countries?**

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## **Abstract**

**This paper explores the phenomenon of BPO particularly as it relates to India and poses the question as to whether this is the way forward for developing countries in using ICTs for economic development. The paper will consider the link between ICTs and development, the nature of BPO and its rise as one of the fastest growing ecommerce services, the phenomenon of BPO in India and the political backlash against offshore outsourcing and whether the Indian success story could provide a model for progress via ICTs in other developing countries. Factors predicting success will be identified. The perspective adopted is that BPO should be seen as part of globalisation and trade and not in isolation. What appears to be evolving is a global delivery model with potential benefits for both developed and developing countries.**

## **Introduction**

In recent years India has achieved considerable success in business process outsourcing (BPO) and other developing countries have sought to emulate this success. This paper considers the factors underlying India's success in determining whether the achievements by India can be replicated by others. In seeking to answer this question the following issues will be considered: the link between ICTs and development and whether outsourcing may provide the so far largely elusive link, the nature of BPO and its evolution from data processing to business process transformation, the various tiers of offshoring supply countries, the implications of extending globalisation to services trade, research showing additional economic benefits to the developed country, the models developed for evaluating national software industries, the Indian experience and the conclusions to be drawn regarding the likely success of other developing countries with BPO. Despite the political backlash in developed countries the available evidence would suggest offshore outsourcing will continue and expand in the future as it is an evolutionary process in trade and those not involved will be at a trade disadvantage. In this paper I consider the research and models proposed to evaluate future directions.

## **Link between ICTs and Development**

In recent times ICTs have been advanced as a means of propelling developing countries into the global economy and assisting with economic development. While this has been the focus of the development agenda by the international community the empirical evidence underpinning a link between ICTs and development in the developing world has so far been largely elusive. Research by Kirkman suggests that electronic commerce in some form could impact on the growth of developing countries while Heeks is of the view that the development agenda by aid agencies has been largely misplaced and that attempts to emulate India's success in software development will be unsuccessful.

In 1999 Kirkman (Kirkman 1999 at p 1) posed the question as to whether the leapfrogging of development through ICTs was feasible. His answer while not unequivocal did express some optimism. While he recognised that many claims regarding the potential of ICTs to overcome the problems of the developing world were extravagant nevertheless he was of the view that some manifestations of electronic commerce could significantly impact upon the economic growth of developing countries. The most promising area he considered to be technology-mediated information service processing (Kirkman 1999 p7). He saw the two main drivers behind this success as being the rising quality and declining cost of technology which allows services to be carried out over global networks and the continuing discrepancy in wage rates between developing and developed nations which allows firms to use a labour arbitrage model to contract out services to low cost service providers. Other factors, which drove the

competitiveness of offshore outsourcing models included language and time zone differentials. He saw trade in services as the driver in electronic commerce in developing countries since infrastructure problems would still impede other forms of international trade.

Heeks (Heeks 2000) has also been of the view that the development agenda of the international agencies has been misplaced. Heeks viewed this as being "a focus on the 'icing' and not on the 'cake'" (Heeks 2001 p1)). The implications for development he saw as three fold: (1) the focus on small firms and poverty re ICTs is misplaced as it has been large firms which have been the engine for development in industrialised and newly-industrialised countries (2) It is business to business (b2b) transactions where most activity is occurring not in business to consumer (b2c) or government to consumer (g2c) transactions (3) the new economy has not arisen from the use of ICTs in business, government and other sectors but rather from a boom in the production of ICTs – the IT producing sector. For developing countries this money goes to the US ICT producing firms (Heeks 2001 p 2).

Heeks asserts that at least 80% of ICT use projects in development fail leading to a massive wastage of investment and that the link between ICTs and development is unclear. His view is that the investment of aid money in such circumstances is misplaced. (Heeks 2000 p 3).

Heeks is also of the view that there are many myths regarding software development in developing countries and these myths may hinder other developing countries wishing to emulate India's performance. "India's apparent success in software exports has encouraged many developing countries to naively believe that they can follow the same path. But they cannot. Adding to its inherent linguistic and size advantages, India has spent more than two decades developing the requisite skills, contacts, policies and infrastructure that are so lacking in many other countries. As a result, it will continue to consolidate its position whilst squeezing out latecomers." (Heeks 2000 p 3) Even for India Heeks dispels some myths. Figures quoted on software are deceptive as exports are gross figures and much of this money leaves India to pay for travel and living expenses in the client's country, for marketing and for software and hardware imports.

Recent concerns have related to job losses in the west as a result of outsourcing to places such as India. Previous concerns regarding the exodus of manufacturing jobs abroad have again arisen in relation to service industries with a fear that countries like India will cause displacement in the United States and elsewhere.

A study by Forrester Research estimated that this type of labour migration, generally referred to as outsourcing if contracted to another company, or offshoring if run by a company itself, could send 3.3m American jobs overseas by 2015. India is expected to get 70 per cent of them. The concern is with job losses and the political pressures resulting from that. A reaction to the threat of job losses by legislating against outsourcing is counterproductive as outsourcing is just trade. (Walman 2003). What is occurring is the result of a shift in production as a response to comparative advantage.

Hence the issue has been defined as a trade issue, likened to what occurred in manufacturing several decades ago and also likened to the "flying geese" pattern of East Asian development (only in this case being "flying geeks") with India being the lead goose with other countries aspiring to follow its flight path. (O'Connor 2003).

There is a trend of developing countries developing a growing presence on the Internet even though this is concentrated in a small number of countries. China, Republic of Korea, India, Brazil and Mexico accounted for approximately 62% of all Internet users in the developing world. Estimates by the International Telecommunications Union (ITU) (UNCTAD 2004 b) were that about 12% of the world population (676 million) had access to the Internet at the end of 2003, almost 3 out of 4 Internet users in developing countries lived in Asia as did two thirds of all the new Internet users in the world. There is little doubt that Asia is the focus of the uptake of the Internet in developing countries. Refer to Fig.1 which shows internet users in developed and developing countries in 2000 and 2003 (UNCTAD 2004 b)



FIG. 1: INTERNET USE 2000 AND 2003. (DATA SOURCE UNCTAD 2004 E-COMMERCE AND DEVELOPMENT REPORT 2004.)

How feasible is it that outsourcing will provide an effective utilisation of ICTs for developing countries. To answer this we need to consider the nature of business process outsourcing (BPO) and consider what has occurred in India and why.

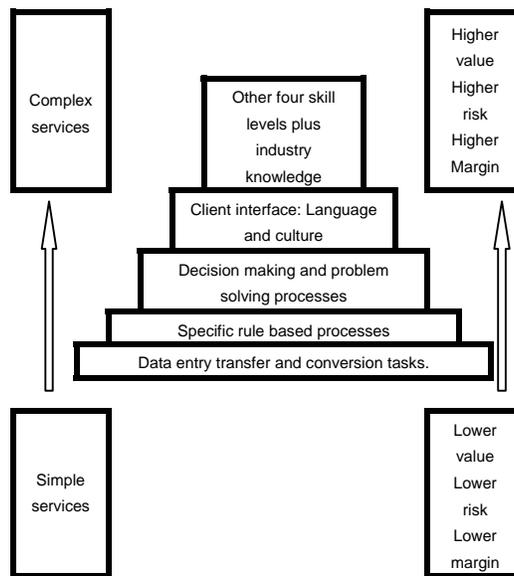
### Business Process Outsourcing (BPO)

While outsourcing has been used for some time for other purposes particularly manufacturing it has only been relatively recently that this has extended to information technology and business process outsourcing. The growth in this area has been attributed to advances in information and communication technologies (ICTs) together with the globalisation of the world economy. (UNCTAD 2003). The growth has occurred in information technology enabled services (ITES) and business process outsourcing (BPO).

The term offshore outsourcing "is now in wide use globally to describe outsourcing to a provider in another country" (UNCTAD (2003 p136). A definition of BPO is difficult to arrive at given that it is an umbrella term to encompass an increasing number of functions. Considerable caution has to be exercised in looking at figures on BPO as some include both software and IT enabled services whereas others just refer to the latter hence figures vary markedly depending on exactly what is included as BPO.

UNCTAD (UNCTAD 2003 p137) provides definitions of BPO by three firms, which are both BPO vendors and clients. "Accenture defines BPO as 'contracting with an external organisation to take primary responsibility for providing a business process or function. For Pricewaterhouse Coopers, BPO 'is the long-term contracting out of non-core business processes to an outside provider to help achieve increased shareholder value". Gartner defines it as 'the delegation of one or more IT intensive business processes to an external provider that, in turn, owns, administrates and manages the selected processes based on defined and measurable performance metrics" (UNCTAD 2003 at p 137)

BPO could encompass data entry services, human resources, finance, tele-marketing, management, legal and accounting services, medical transcription, website designing and credit card applications and many other functions. The trend in developing countries is to start out on lower level functions for example, data entry processing and move on to higher level functions for example, human resources. The movement is hence from transaction processing initially to business process transformation through outsourcing. Fig.2 (UNCTAD 2003 p 140) illustrates the BPO hierarchy of services.



Adapted from: UNCTAD: 2003 E-Commerce and Development Report 2003. Chap 5, at p140. UNCTAD/SIDTE/ECB/2003/1

FIG.2: BPO HIERARCHY OF SERVICES

UNCTAD recommends that developing countries should endeavour to move up the hierarchy of services rather than just increasing revenue via greater volume at the lowest levels of the hierarchy. As service providers move up the hierarchy additional skills are required and with this comes an increased employee cost. UNCTAD believes government support is vital to achieve a favourable environment for ICT in developing countries and included in this is a "capacity to identify potential niches and make the required investments in terms of telecommunications infrastructure, education, a legal framework and tax incentives to attract overseas clients" (UNCTAD 2003 p148).

"Outsourcing business processes to developing countries had its beginnings in the early 1990's when US companies began outsourcing to India the conversion of custom-made software programs from one operating system to another (Gupta 2002)" (UNCTAD (2003 p136). India is the main outsourcing provider among developing countries however other providers are emerging in China, the Philippines, Brazil, Russia and many others.

### Offshore Outsourcing is Globalisation in Action

While there has been concern in developed countries that offshore outsourcing leads to job losses and the migration of jobs abroad that aspect needs to be seen in context. Attempts to prevent such outsourcing are really a form of anti-globalisation, which could well impact negatively on a long term basis. The important point to note is that the economic benefits resulting from offshore outsourcing are just an illustration of gains from trade and specialisation. Outsourcing is just trade. The outsourcing of business processes is just a modern day equivalent of what previously took place in outsourcing manufacturing.

The figures themselves also need to be kept in perspective even though estimates vary as to just how big offshore outsourcing is likely to become.

"The current size of the offshoring phenomenon needs to be kept in perspective. First, whereas offshoring is likely to grow over time, most outsourcing remains predominantly a domestic affair; only a small proportion of

all business process outsourcing is international and, within that segment, much is outsourced among developed countries (Scholl et al 2003). Second, there is no sign of offshoring leading to a decline of similar services in home countries .... The 3.4 million service jobs that are forecasted to be offshored from the United States until 2015 (or about 300 000 annually over the next 11 years) seem insignificant compared with the average normal turnover of some 4 million every month.” (UNCTAD 2004a p176)

## **What is the Size of the Market**

In 2002, the market for offshore outsourcing of IT enabled services (mostly business process outsourcing) was estimated at \$1.3 billion– less than 1% of the global market for such outsourcing (Scholl et al 2003)...the total market for all offshore service exports was estimated at \$32 billion in 2001, most of which was supplied by Ireland, India, Canada and Israel, in that order (McKinsey and Co, 2003)” (UNCTAD 2004a p153).

BPO offshore outsourcing excluding software is expected to grow from \$1.3 billion in 2002 to \$24 bn in 2007 and correspondingly the international share of the market is expected to grow from 1% to 14% in five years.(UNCTAD 2004a p153)

The effects on employment have been predicted to be 3.3 million service jobs from the US to low income countries by 2015 according to Forrester Research. It is predicted that offshoring is likely to spread across industries and countries and that appears to be occurring.

Recent trends show companies having a global presence and the emergence of a new type of transnational corporation that supplies the services of other companies. Not only are US companies buying out Indian companies, Indian companies are also establishing a presence in the US and moving to set up a presence in other Asian countries and also central and eastern Europe.

While the US looks predominantly to India there is an increasing trend for European countries to look to outsourcing closer to home in central and eastern Europe. The Czech Republic, Poland and Hungary are securing many of the outsourcing contracts in Europe.

While various research classifies countries involved in BPO according to different tiers and this depends on exactly which services are being ranked a useful description is a Deloitte research report which shows the following:

“Deloitte’s four-tier offshoring supply countries list puts India as a distant leader in the first tier. The second-tier, which comprises ‘challengers’ with moderate offshoring capabilities, includes Canada, China, Czech Republic, Hungary, Ireland, Israel, Mexico, Northern Ireland, the Philippines, Poland, Russia, Spain and South Africa.

The third-tier, which comprises ‘Up-and-comers’ positioning for offshoring with limited experience, are Belarus, Brazil, Caribbean, Egypt, Latvia, Mauritius, Singapore, New Zealand, Ukraine and Venezuela. The fourth-tier comprises ‘neophytes’ with countries such as Bangladesh, Cuba, Sri Lanka, Thailand, Korea, Malaysia and Vietnam. The key factors considered while selecting an offshoring location are cost (38%), proficiency in language (22%), industry expertise (18%), technology infrastructure (9%), time zone (5%), political risk (4%) and climate (1\$).” (rediff.com 2004)

Refer to another classification in Fig.3 which classifies countries as the leader, challengers, up and comers and beginners. (Marriott 2003). Hence the global trends include an accelerating trend towards offshore outsourcing and this is part of a movement towards global sourcing. There are various movements underway with US companies establishing themselves in India and Indian companies moving offshore to the US and other lower cost nations eg China. There is a movement up the value chain in established locations such as India and with increasing wages there, lower value work is moving to cheaper locations. There is recognition that offshore outsourcing is trade and part of globalisation and the emphasis is moving from possible cost advantage to cost disadvantage if offshore outsourcing or global sourcing is not utilised.

Leaders		Up and Comers	
India		Belarus	Lithuania
		Brazil	New Zealand
		Caribbean	Singapore
		Egypt	Ukraine
		Estonia	Venezuela
		Latvia	
Challengers		Beginners	
Canada	Mexico	Bangladesh	Nepal
China	Northern Ireland	Cuba	Senegal
Czech Republic	Philippines	Ghana	Sri Lanka
Hungary	Poland	Korea	Taiwan
Ireland	Russia	Malaysia	Thailand
Israel	South Africa	Mauritius	Vietnam
Adapted from: Marriott, I. 2003: The Changing Shape of Outsourcing. Gartner.			

FIG. 3: GLOBAL SOURCING POWER

### Opportunities in Services Trade for Developing Countries

There has been an outcry from the developed countries regarding outsourcing. An argument advanced in India (Bhaumik 2004) is that this outcry is really a protest by the advocates of globalisation when the implications of globalisation expanded from manufacturing to the entire gamut of business activities. For many developed countries their core strength is the services sector (accounting for perhaps 70% of their economy) and there had been pressure for developing countries to open up their services sector via the WTO (World Trade Organisation) and GATS (General Agreement on Trade in Services). What has occurred is a boomerang effect of the policies of globalisation for developing countries with skilled manpower. Hence developing countries have turned the push by developed countries into the services sector of their economies to their own advantage. A solution to this is not protectionism, which will just lead to impaired competitiveness but rather a move in developed countries to higher value-added activities. Perhaps the backlash from the outsourcing of services may be more pronounced than that for manufacturing since services provide up to 70% of the economy in the US even though most of these cannot be outsourced offshore.

Nielson and Taglioni (Nielson and Taglioni 2004) undertook a study into services trade liberalisation with two components: identification of concrete examples of services exports by developing countries and quantitative studies on the gains from liberalisation. From this they found clear evidence that developing countries have important service sector export industries including a clear comparative advantage in labour intensive industries eg data processing where technological advances together with a well-educated and cost effective workforce enabled them to export computer related services. The study specifically names the Indian performance over the last 20 years as evidence of this.

Under the General Agreement on Trade in Services (GATS) there are 4 modes of supply for trade in services. These are:

- 1) Cross border trade – where the service itself crosses the border
- 2) Consumption abroad
- 3) Commercial presence
- 4) Movement of natural persons

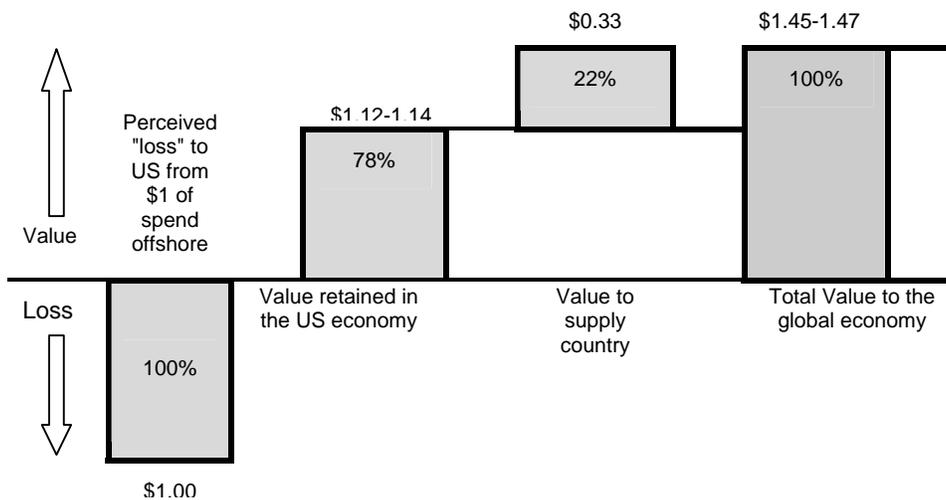
Bodyshopping where Indians worked in firms abroad supplying software services (the “flying geeks” phenomenon) is an illustration of the 4<sup>th</sup> mode of supply but it is the 1<sup>st</sup> mode of supply where the service itself crosses the border which is of increasing importance in BPO. The study specifically identifies modes 1 and 2 as offering potential for developing country service firms.

“Services make up a major portion of the world economy. In 2000, the estimated total value of world services production was US \$1.4 trillion.” (Nielsen and Taglioni (2004) at p 17). While developed countries dominate services trade, the importance of electronic supply of services for developing countries emerges strongly in the study. ICTs have created real opportunities for developing countries by dramatically reducing transportation costs and hence enhancing their comparative advantage. Hence the clear potential for future growth.

### **Can Outsourcing be a Win-Win Situation?**

Can offshore outsourcing be a win-win game? (McKinsey Global Institute 2003). The focus of much of the offshore outsourcing debate has involved the US and India. US businesses account for about 70% of the offshoring market and India is the clear leader as a global sourcing country. Forrester predicts that the number of US jobs lost to offshoring will go from about 400 000 in 2003 to about 3.3 million jobs by 2015. India does gain. McKinsey predicts the gain to be about 33c for every \$ spent offshore. What is the impact on the US?

Evidence available to McKinsey Global Institute suggests that 70% of US services cannot be offshored. Even if in the US 3.3m jobs do go offshore the job loss debate misses the point that offshore outsourcing actually creates wealth for the US. “Offshoring not only captures every bit of economic value, dollar for dollar, that exists in the US economy prior to the decision to offshore, but it also creates a net additional value for the US economy that did not exist before. The US will capture economic value through several different channels: reduced costs, increased revenues, repatriated earnings, and the redeployment of additional labour”(McKinsey Global Institute 2003 at p 7). “Far from being bad for the United States, offshoring creates net additional value for the US economy that did not exist before, a full 12-14 cents on every dollar offshored. Indeed, of the full \$1.45 to \$1.47 of value created globally from offshoring \$1.00 of US labour cost, the US captures \$1.12 to \$1.14, while the receiving country captures, on average, just 33 cents.” (McKinsey Global Institute 2003 at p 9). This offshoring value in the global economy is illustrated in Fig.4.



Source:McKinsey Global Institute 2003: Offshoring: Is it worth the Game?

FIG. 4: OFFSHORING VALUE IN GLOBAL ECONOMY

This is not to deny the hardship suffered by those directly affected and McKinsey Global Institute quotes a finding by the Bureau of Labor Statistics that 31% of those whose jobs were displaced by trade were not fully re-employed. Clearly the effects of displacement caused by offshore outsourcing need to be addressed. McKinsey Global Institute finds the benefits to the economy will however mean an increase in offshore outsourcing by 30-40% to 2008 which will result in a loss of about 200 000 US jobs a year in services over the next decade.

Even the term "offshore outsourcing" is increasingly obsolete as the phenomenon is really one of global sourcing and a logical extension of globalisation. Can it be stopped and is it desirable even if it could be. Even if protectionism were invoked it is unlikely to be successful long term. The argument is that if you choose not to do it your competitors will probably do so and gain the resulting competitive advantage. The trend already underway is that the "onshore" vs "offshore" debate will give way to global sourcing achieving the greatest efficiencies.

## Success Factors

Various models have been proposed for evaluating national software industries. In seeking to determine if other developing countries can emulate India's success in BPO the factors underlying India's success need to be determined and analysed.

Heeks and Nicholson (Heeks and Nicholson 2002) considered major software exporters of developing and transitional economies – the 3 I's – India, Ireland and Israel – and used the model developed as a result to investigate the potential of 3 second tier exporters: Russia, the Philippines and China.

What they found as critical for each of the 3 I's success was a shared vision within the country of what software could achieve for the country. They also found that while the 3 I's overlap in what they do the "the bigger picture is one of differentiation. India means software services; Ireland means product-related services for multinationals; Israel means home-grown product exports." (Heeks and Nicholson 2002 p 6).

Each of the 3 I's has followed a different strategic path. India started with bodysourcing program services and its strategy is to climb the value chain. Also 20 of the 37 recipients of the Capability Maturity Model highest level rating are Indian software exporters. Challenges facing India include increasing labour costs, brain drain and dependence on the US (2/3 of Indian software exports.) Ireland has a more diversified export country base but also faces challenges of increased labour costs and brain drain. It has diversified away from customisation of foreign

packages and into software services projects and niche market products. For Israel the challenges have been obsolescence of products and competition from other product firms as well as dependence on the military sector. Its strategy has been to focus on innovation and differentiation.

Heeks and Nicholson identified the following success factors for the 3 I's they looked at:

- International linkages and trust. At the root of linkages have been national diaspora which formed the basis for early contracts. Most of the larger firms in the 3 I's have formed bonds with single, large multinational clients. Usually these clients formed local subsidiaries or joint ventures. Trust has been established by ISO 9000 certification.
- Software industry characteristics. Common characteristics include competition between privately owned firms, clustering in a few locations – in India this is in Bangalore, Mumbai, Delhi and Hyderabad – and collaboration in areas of mutual benefit eg overseas marketing.
- Domestic input factors/infrastructure. There is a reliance on people and the skills, expertise and size of the local labour pool. Strong technical and scientific education, labour costs and the English language are important.
- Technology. A strong technological infrastructure together with government and foreign investment were present.
- Finance. Each of the 3 I's had heavy investment of overseas aid into infrastructure. For India this came from donor aid, for Ireland from the European Union and for Israel from the US.
- Research and development. All of the 3 I's have invested in software related research and development.

Applying these success factors to second tier exporting nations – Russia, the Philippines and China - Heeks and Nicholson found the following. For Russia its strengths are: human infrastructure with Russia ranking third in the world regarding per capita scientists and engineers with low labour costs, valuable international linkages and investments and clustering. Weaknesses include lack of clear vision and strategy for software export growth, human resource management skills eg poor knowledge of western business practices, limited English skills. There are also problems with piracy, a weak legal system and a perception of corruption and too much bureaucracy leading to weaker trust in relationships. For the Philippines its export activities fall within the broader IT related services including back-office data operations and call centre work rather than just software development. Its strengths are knowledge of western business practices, education and English skills. Difficulties relate to infrastructure, labour costs and issues of trust linked to perceptions of political instability, corruption and a poor legal system. China has a strong domestic software industry. Its strengths are a clear government strategy, strong telecommunications infrastructure and education system. Limitations include English language skills and knowledge of western business practices. It has trust issues with perceptions of corruption, piracy and potential for political instability. Its strong domestic market also diverts resources from exports.

The 3 I's have the advantage of being early entrants into software export markets and will probably attempt to squeeze out latecomers. The difficulty is in moving up the value chain from data services to software services to software products. India while moving from its bodyshopping origins to software services has had difficulty in moving further up to software products. This may not bode well for the Philippines to move from low value data services to higher value software services.

A difficulty for all is diversification eg India's reliance on the US. Determining a market niche based on the strengths of the country does appear to work for Russia with its strong scientific and technical skills, for China with Chinese language software and for the Philippines with its focus on data entry work. Heeks and Nicholson conclude that apart from determining market niches based on the strengths of the particular country the following factors are important:

- Make it easier for professionals to travel to other countries
- Encourage people, money and ideas to come in ie a climate conducive to foreign investment
- Facilitate relationships
- Build trust by reducing areas of perceived risk (eg on software piracy)

Carmel (Carmel 2003) takes this model further by classifying the new software exporting nations into four tiers instead of two: (1) US, UK, Germany, India, Israel and Ireland (2) transition – China and Russia (3) emerging

(4) infant stage of software nations. Carmel introduces what is termed the “oval model” of national software export success factors which also emphasises human capital and quality of life but places less emphasis on piracy or trust.

Carmel deems that “the strength of a nation’s human capital stems from a multi-generational tradition of science and engineering that has its roots in strong universities, polytechnics and vocational schools.” (Carmel 2003 p 4). This factor in the case of the 3 I’s dates back at least 1-2 generations and cannot come about in just a few years. Carmel also finds that the quantity of human capital is also important eg China is graduating about 50 000 new computer graduates each year and 465 000 are graduating in all science and engineering courses. A distinction is made between those possessing “talent” at the upper end of the spectrum and those possessing “skills” (something which can be learned in a few months or years) at the lower end of the spectrum. It is suggested that those with talent reside in clusters, which have quality of life factors which may not exist in some developing/emerging nations.

The wage factor or “race to the bottom” suggests that as wages increase firms turn to other cheaper countries. In terms of clustering these clusters are numerous in nations in tiers 1 and 2, less striking in tier 3 and often absent in tier 4. A success factor is the ability to pool resources into a national association eg NASSCOM (National Association of Software and Service Companies) in India, which also assists with branding. Success may also be gauged by the attaining of internationally recognised standards of quality – eg in India the Capability Maturity Model (CMM). In terms of capital most firms in tiers 3 and 4 lack sufficient capital to grow. With regard to linkages “the ‘brain drain’ has become a ‘brain gain’ in the ties and know-how that have been forged between firms in the home country and the country of the diaspora” (Carmel 2003 p9). New linkages include geographic linkages eg Mexico and Canada and their proximity to the US. Carmel downplays the issue of piracy as “the growth of software exports from high piracy nations such as Vietnam, China and Russia, attests to the irrelevance of piracy as a national factor.”(Carmel 2003 p10). A limitation for some in tiers 3 and 4 is that “most lower-tier software nations ...have insufficient domestic demand to catalyse a healthy software export industry” (Carmel 2003 p10).

Carmel’s conclusion is that “in order to gain a sustained competitive advantage firms must develop firm-specific resources or capabilities that are: valuable, rare or costly to copy. It is quite unlikely that being the low cost software producer by competing simply on low wages for commodity-type skills is a path to a sustainable position. National software industries that do not add value beyond simply being the low cost producer will soon see their work shift to lower-cost destinations. This is the ‘race to the bottom’ (of the wage scale) that typifies such commodity work. Software work moved first to India because of low wages” (Carmel 2003 p11).

## India

“By 2008, forecasts McKinsey, IT services and back-office work in India will swell fivefold to a \$57 billion annual export industry employing 4 million people and accounting for 7% of India's gross domestic product.” (Kripalani and Engardio 2003 p 4).

What has been the contribution of software to India’s economic development? Conclusions are that the impact has been limited to a small section of the economy and to be sustained requires a significant increase in domestic demand. Arora and Athreye (Arora and Athreye (2001) argue that “a potentially important and under-appreciated contribution of the software industry is thus its exemplar of good entrepreneurship and corporate governance to the rest of India”. They compared the ratio of labour productivity in software and found it twice that of India’s manufacturing and 1.3 times that of the US. There were relatively few linkages found to the other sectors of the economy.

Their view is that what has occurred with software can be replicated for other services to be delivered globally. A generic business model for software can be used eg for data entry. Changed management practices do have the potential to spill over to the manufacturing sector of the economy. Hence there has been a diffusion of good management practices from the software sector to other economic areas and this in turn will be to India’s gain. The poor linkage of the software sector to the rest of the economy has come about “because of the ‘service’ rather than the ‘product’ nature of the industry and its external rather than inward orientation” (Arora and Athreye 2001 p18). What have changed is management practices which may spill over into other sectors of the economy to make them more competitive and productive.

Initially the software industry in India relied on body shopping where firms in India would fly their professional staff to work on software problems at the site of their overseas clients. From this emerged the concept of “flying geeks”. However the term could also “suggest a possible kinship between the Indian software experience and the so-called “flying geese” pattern of East Asian development” where ‘it is India that takes the place of lead goose, with other countries in the region aspiring to follow its flight path’”. (O’Connor 2003). The flying geek concept has been a market entry strategy for Indian software firms. The “flying geek” model suggests the parallels to what occurred in manufacturing in East Asia and the attempts by various countries to replicate India’s success would suggest an aspiration for BPO to follow the pattern of manufacturing.

In 2004 the Indian BPO industry excluding software was a \$3.8 billion industry and grew 50% in 2003-2004. Gartner research predicts a 25% slide in Indian BPO by 2007, a significant drop from its present 80% market share. The strongest perceived threat is from China. To address perceived threats there is recognition of the need to diversify into other services where there is no significant challenge. According to estimates by NASSCOM the market for IT enabled services will continue to grow fast and could be worth \$17 billion by 2008. (UNCTAD 2004a). The call centre industry is projected to provide employment for 2 million people by 2009. The IT sector combined with BPO had exports of \$12.5 billion in 2003-2004. “Nearly 25% of the exports that involved 800 000 workers came from the top three companies in the sector: Tata Consultancy Services, Infosys Technologies and Wipro Technologies.”(Reuters 2004). A silicon.com special report indicated that software exports are on track to grow by 30% in 2004-2005.(Reuters 2004).

In 2003 South Asia received \$6.1 billion in FDI compared with \$4.5 billion in 2002. For India FDI grew by 24% with the services sector and in particular ICT industries the most dynamic for FDI inflows. (UNCTAD 2004a). Average FDI into services offshoring in India totalled \$300 million in 2001, or just over 10% of the country's total FDI that year according to McKinsey 2003 (UNCTAD 2004a).

What appears to be evolving from offshore outsourcing is a more sophisticated model based on a global network of multiple offshore locations. This global delivery model has no clear leader yet although Forrester Research has considered the capabilities of both the major Indian firms and non Indian firms. Tata Consultancy Services has begun to offshore its staff as a response to a rise in salaries in India and in 2005 Tata plans to have 3000 software engineers in China (ie 15% of their global workforce).

Perhaps one of the most significant effects of the Indian software success story is the boost to Indian confidence leading to increased expectations and innovative management and governance practices in this area have spilled over to other areas of the economy. The indirect effects on the Indian economy may be more profound than the effect of the technology itself in the longer term.

## Conclusion

Can India’s success be emulated and provide the role model in other developing countries? The answer would probably be a qualified ‘yes’ at least for lower level services and where there is a cost advantage provided by the country. For software exports entry and success is much more difficult to achieve. What appears to be evolving is a global delivery model which may benefit new entrants with a cost advantage. However sustainability would depend on the ability to move up the value chain and to identify market niches capitalising on the strengths of the individual country. Those countries which can identify some of the success factors identified by Heeks and Nicholson and refined by Carmel will have the greatest chance of success in this process.

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SECTION 5  
NETWORK TECHNOLOGIES & BUSINESS DELIVERY SYSTEM

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# Manufacturer-Retailer Supply Chain Integration: Vertical and Horizontal Collaborative Logistic Strategies and Implication for Channel Power and Channel Efficiency

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## Abstract

The present paper tests for empirical evidence on the effects of reorganisation of supply chain on the manufacturer-retailer relationship and on their strategic and competitive behaviour. The reorganisation of supply chain attempts the relationship between manufacturer and retailer, changing the balance of power in distribution channel and influencing the strategic behaviours in the horizontal (i.e. retailer versus retailer) and vertical relationship (i.e. retailer versus manufacturer). The paper shows some preliminary results of a wider research on distribution channels focused on the role of logistics in promoting collaborative strategies between manufacturers and retailers and on the linkage between logistic collaborative strategies and competitive advantage. A case-history explains the reorganisation of one of the most important Italian retailer\*.

## Introduction

Manufacturer – retailer relationship is a crucial topic in economic studies and it is examined from different academic perspectives [14], such as Industrial Organisation [12, 27], “Behavioural Marketing” [10, 13, 32]<sup>1</sup> and Strategic Management [25, 26, 31, 3]<sup>2</sup>.

The present paper studies the manufacturer–retailer relationship in the grocery industry from a managerial perspective, analysing and testing the effects of the reengineering of logistic system on the manufacturer-retailer supply chain and on their strategic and competitive behaviour. It shows some preliminary results of a wider research on distribution channels focused on the role of logistics in promoting collaborative strategies between manufacturers and retailers and on the linkage between logistic collaborative strategies and competitive advantage.

In the businesses in which big retailers operate and the speed of physical and informative flows are critical for matching strategic goals, the linkage between logistics and strategy is commonly recognised by academics and managers. Infact, retailers are attempting not only to meet consumers’ service demands but also to improve logistic productivity and efficiency through the supply chain: logistics is now viewed as an important source of competitive advantage that allows at the same time to cut costs and to improve customer service [29].

While several studies on manufacturer-retailer relationship focus on the process of restructuring the supply chain<sup>3</sup>, only few of them focus on the impact of the reorganisation of supply chain on manufacturer-retailer relationship and, then, on vertical competition.

The reorganisation of supply chain, infact, attempts the relationship between manufacturer and retailer, changing the balance of power in distribution channel, and influencing the strategic behaviours in the horizontal (i.e. retailer versus retailer) and vertical relationship (i.e. retailer versus manufacturer).

As retailers centralise the Distribution Centre, they centralise the negotiation phase and gain scale, outpacing manufacturers through an increase in bargaining power. Some retailers are actively taking control of the supply chain through explicit horizontal alliance with other big retailers, with the aim at improving the bargaining power.

On the other hand, the reengineering of the supply chain needs vertical collaboration between retailers and manufacturers in the management of logistic activities; collaborative information of different activities between the market partners and their process of harmonisation is regarded as a performance driver to overcome the unsatisfactory profit situation of stagnant grocery industry.

In other words, *which business model prevails? Competition? Collaboration?*

The paper is organised as follows: First, we discuss about the innovative features of supply chain, comparing it with the traditional logistic system, and we point out a few potential opportunities for the development of channel efficiency and efficacy. Second, we outline the impact of the reorganisation of supply chain on the relationship between manufacturer and retailer, focusing on the shift of channel power in the negotiation phase and the development of collaborative strategies in the logistic phase. Finally, we describe the restructuring of the supply chain made by one of the most important Italian retailer and discuss the potential role and tasks of logistics in promoting horizontal (retailer vs retailer) and vertical collaborative strategies (retailer vs manufacturer).

The case explains the reorganisation of such retailer by analysing the creation of an important logistic hub for the Italian Nord West Area. In particular it focuses on the issues that influenced the enterprise's choice of setting up its logistic hub from a local to an interregional level.

## **Innovative Logistics features in the Manufacturer-Retailer Supply Chain**

Logistics has become central feature to enterprises' strategies because it is commonly recognised that product is not a physical think: the right goods and services of the right quality and in the right quantity at the right time and the right place with the right services and support at the right price [21]. This is a service perspective that the traditional supply function is expected to meet.

Logistics plays an important role in delivering goods at the high service level and low costs demanded throughout the supply chain [18, 29].

The reengineering of supply chain was a strategic issue in response to reduce the total amount of "vertical interface costs" between retailers and manufacturers [23].

The reduction of supply chain costs must be consistent with the present characteristics of grocery markets that are:

- Stagnation of consumer demand in the grocery industry and the consumers' willing to find the best product at the best service and price;
- Increase of competitions among retailers and among manufacturers (horizontal competition).
- Increase of competition between retailers and manufacturers in order to gain the best contractual conditions in the negotiation activities (vertical competition) .

The rigid separation of the traditional roles of manufacturer (production and physical distribution of goods) and retailer (commercial activities) threatens the efficiency and efficacy of the supply chain: the reorganisation of logistic system and the rationalisation of the supply chain is more and more becoming a strategic issue and a competitive advantage source in the horizontal competition.

Because retailers and manufacturers are so closed intertwined as customer-supplier, the understanding of the complex interface operations (that generate costs) between the trade and the manufacturing industry is crucial in order to configure an efficient supply chain.

Considering that the negotiation phase is an area in which the bargaining power is stressed, this new reality requires a fundamental analysis of the most effective way of reducing the total amount of product costs (and consequently costs) without reducing the quality of product and the customer service.

Reducing "vertical interface costs" allows both manufacturer and retailer to improve their margins without price increasing.

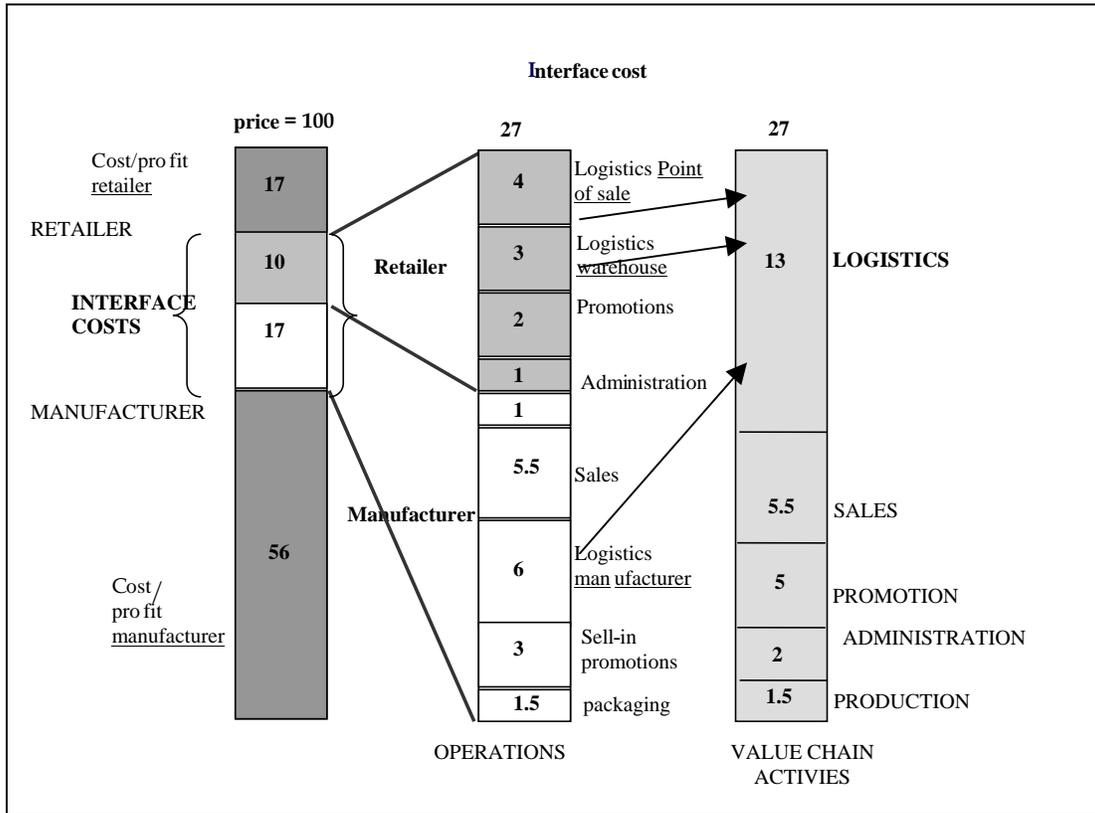


FIG. 1: THE COST AND FINAL PRICE STRUCTURE (Source: ECR)

As shown in Fig. 1, the 27% of Consumer Price is due to “vertical interface costs” between manufacturer and retailer, which are generated primarily by non-standardised operational practices and by the duplication of operations. Among these “vertical interface costs”, an half is generated by logistics operations, such as retailer warehouse (3%), logistics management of point of sale (4%), logistics of manufacturer (6%).

The rationalisation of the supply chain (and the consequent reduction of interface costs) in the manufacturer-retailer relationship has been made primary by the integration of logistic activities by retailers.

In the past, infact, logistics was controlled by manufacturers that had the responsibility of physical distribution of goods from factory to the single points of sales.

With the growing of scale dimension and with concentration of retailer industry, logistics is now driven by retailers that integrate warehousing and transport activities and reengineer the entire supply chain.

In retail industry logistics is becoming more and more important; retailer becomes a “pure logistics organisation” because it allows the transaction of goods and service from manufacturer to end consumers.

By investing in their own regional (o interregional ) Distribution Centre, many retailers have taken control of store replenishments from suppliers and wholesalers.

The Distribution Centre becomes the barycentre of logistic system in the channel of distribution and it is can be seen as the hub that serves the single points of sale (spoke) that operate in a certain gravitational area: in other words, the integration of logistics made by the retailer is implemented by the consolidation of the main logistic activities at the Distribution Centre level.

The main reasons that push retailer to integrate and consolidate physical and informative flows related to distribution of goods in the channel are:

1. The improvement of efficiency/efficacy in the bargaining phase, thanks to discounts made by sellers due to the optimisation of load transport and delivery/replenishment processes;
2. The improvement of efficiency in the operative processes by reducing stocks level and storing costs, by increasing labour productivity and the expositive surface of the point of sale.
3. The improvement of consumer services by reducing out of stock in the point of sales and by enhancing quality and freshness of goods

The profitability of retailer is related to the optimisation of stocks that, differently from manufacturer, are both a cost centre and a profit centre.

Stocks, infact, are costs because they are immobilised assets and need space and personnel but they produce revenues when stock turnover is faster than payment days to suppliers.

The integration of logistics by retailers help to reduce the logistic “vertical interface costs”: the hub and spoke system allows to cut retailer storing costs and to cut logistic manufacturer cost.

Manufacturers, for example, gain efficiency by delivering to a few number of warehouse-hub (instead of the singles point of sale), while retailers can exploit economies of scale in the warehouse management.

Big retailers, thanks to the integration and the centralisation of logistics, promote “every day low prices policy”, creating more value for consumers and “shifting away from in store sales and price promotion that had been an industry convention” [11].

As retailers integrate logistics and centralise warehouse in a single hub, leading companies in the retail industry realise that it is not enough only to optimise internal operations, but it is more and more necessary to integrate the supply chain at every link, from manufacturer to consumer.

The reengineering of the supply chain needs also vertical collaboration between retailers and manufacturers in the management of logistic activities [20].

The traditional procurement uses fact-based negotiation approach with suppliers.

With network relationships, common strategies and policies could be developed through solutions achieved in the alliance of supply chain.

For example, as both manufacturers and retailers suffer in the financial area from promotional out-of-stocks, they both must work together to solve the problem.

The ECR (“Efficient Consumer Response”) movement, for example, stress the importance of new principles of collaborative management along the supply chain, aiming at gaining efficiency in the logistic process and serving consumers in better ways, faster and at less cost [7,8,9].

This result is called win-win-win situation where all partners in the supply chain (manufacturer, retailer, and end-user) can gain profitability by doing more with less [33].

Manufacturers and retailers agree that the industry needs to focus on a reasoned and pragmatic approach to improve quality, velocity and dynamics within the chain.

The orientation towards supply chain integration is necessary for the implementation of some important projects aimed at improving the logistic efficiency and efficacy.

Among these projects, Continuous Replenishment (CPR) aims at decreasing stock levels and improving product availability at all points within the replenishment chain (i.e. from the point of manufacture to the point of sales) while remaining as near as possible to consumer demand, through partnership between the supplier and its customer<sup>4</sup>.

In a Continuous Replenishment environment, manufacturer is no longer simply the executor of an order placed by it’s customer-retailer but becomes a key player together with the customer in ensuring replenishment at the point of sale or in the warehouse. One of the major beneficial effect of the implementation of Continuous Replenishment is the reduction of fluctuations in stock levels and vagaries of production.

Among the techniques of CPR, we can find the Vendor Managed Inventory (VMI) in witch the supplier maintains the replenishment system; sales and inventory information must be transmitted by the buyer to the supplier as often as the replenishment system is executed. This information is used by the supplier's replenishment system as historical data for future requirement calculations and adjustments to the next production cycle.

When the replenishment system is co-managed (CMI), a proposal order is generated by the supplier, and revised and confirmed by the buyer.

On the contrary of vendor management Inventory, here the buyer maintains the responsibility for the replenishment in Co-Managed Inventory.

While the previous projects focus primarily on logistics and in particular on inventory management, Collaborative Planning, Forecasting, and Replenishment (CPFR) process is a wider project that co-joint retailer's and manufacturer's marketing and logistics aspects.

In this project, infact, the seller and buyer exchange information about their corporate strategies and business plans in order to develop a joint business plan. CPFR establishes guidelines for enterprises in order to integrate their planning processes across corporate boundaries.

The effectiveness of these projects requires real time information.

Information must be, therefore, available to the entire supply chain almost simultaneous.

Optimisation of the collaboration between all supply-demand chain partners can be achieved only through real-time communications.

Semi-automation of communication acts like requests or acknowledgements are possible through the application of intelligent agents or systems.

In this way, technology will be a critical success factor for retailers and manufacturers.

The impact of the digital age is manifesting itself in many ways within the retail industry. The EDI and, more recently, the Internet and Extranet enable trading partners to quickly share information on customer requirements, level of stocks, demand trend.

An increasing amount of data is widely available in the supply chain with more standardisation expected soon. Information and Communication Technologies (ICT) will remain an important area of investment for retailers and manufacturers as companies begin to make use of the volumes of data that currently overwhelm them.

Opportunities will come to develop new grocery products and to manage new ways of selling and buying from this information. In short, new technology will lead to a new way of doing business and will heavily impact areas such as promotions, transactions and logistics<sup>5</sup>.

## **The Potential Role and Tasks of Logistics in Promoting Horizontal (Retailer vs. Retailer) and Vertical (Retailer vs. Manufacturer) Collaborative Strategies**

To gain strategic benefits and logistics cost saving, leading retailers recognised that it is not enough to optimise the internal operations, but it is necessary to reorganise the entire supply chain (from manufacturer to consumer).

In particular, retailers are reengineering the supply chain following and implementing two strategic paths, that are:

- Horizontal logistics consolidation;
- Vertical logistics consolidation.

The *horizontal logistics consolidation* concerns with the fact that retailers centralise and integrate logistics activities by investing in their own Distribution Centre.

Big retailers organise logistics from a "point to point system" to "hub and spoke system".

This will become increasingly important because efficiency in logistics requests to reach high critical mass in order to gain economies of scale.

The common trend towards horizontal consolidation at the retailer level influences also the external organisation of some retailers that are actively taking control of the supply chain through explicit horizontal alliances in the negotiation phase.

In many EU countries buyer groups are emerging. There are two forms, representing either many small retailers (such as SISA, in Italy) or two or more larger retailers (such as Conad-Leclerc, at international level). The key aspect is that the buyer group purchases collectively on behalf of members that remain independent retailers, with the aims at obtaining from suppliers the same benefits and discounts of the largest integrated retailers.

The horizontal logistics consolidation allows the use of a common Distribution Centre to consolidate those goods that several retailers may sell in common: centralising some operations through shared facilities allows to cut the cost associated with the warehousing and carrying inventory.

With the horizontal concentration of retail (reached by horizontal alliances or by the internal consolidation of the negotiation and logistics activities), the structure of the supply chain changes considerably.

From a structure in which manufacturers have traditionally driven distribution by developing brands and using a network of wholesalers and retailers to sell and distribute goods to consumers, there has been a shift towards a structure in which it is now retailers the actor who drives and controls the supply chain.

The consequence of these organisational logistic actions is the pool of purchasing activities that brings to more bargaining power to highly concentrated suppliers. The manufacturers' market power has largely shifted toward retailers.

The oligopsonistic power of the retailers impacts on most manufacturers, especially those who do not possess power arising through brand power. Only those producers that have very strong brand power of their own may be able to resist retailers' increasing bargaining power.

The bargaining power enables large retailers to gain further competitive advantage over the other competitors (especially the smallest ones), which in turn leads to further consolidation at the retail level. The process is a virtuous circle for the very large retailers.

The horizontal logistics consolidation stresses the negotiation phase and the competition retailers versus manufacturers in order to obtain the best contractual conditions in the buying/selling phase.

Moreover, through aggressive bargaining strategies, including the use of de-listing tactics, and the increasing use of auctions for awarding contracts, retailers have been able to drive down the prices and margins that producers receive.

The *vertical logistics consolidation* concerns with the fact that both retailer and manufacturers have begun to act on the belief that for becoming and remaining a industry leader, it is necessary to improve the operations of the entire supply chain. Following this belief, vertical partnership have begun to emerge.

For several years, academics and marketers recognised that inter-organisational coordination in the distributive channel is a potential and fundamental competitive requirement [24].

Distribution channels have traditionally tried to meet competitive challenges by forcing manufacturers and their distributors to stock excess inventory or employ surplus personnel.

Recognising the inefficiency of this approach, leading manufacturers and retailers are willing to explore new ways of working together for mutual gain.

Strategic alliances between firms aim at reducing the duplication of resources and efforts and at decreasing the environmental and internal uncertainty.

In this way, supply chain management becomes the strategic issue oriented towards the linkage of organizations with the purpose of reducing operational costs through asset-specific investments that yield superior efficiency.

Retailers have been more proactive in their approach, developing partnership primarily in operational improvements such as delivery, storage and packaging patterns.

As we have showed, Continuous Replenishment Project (CPR), Vendor Management Inventory (VMI), Co-Management Inventory (CMI), Collaborative Planning Forecasting and Replenishment (CPFR) are the strategic logistics projects in which the collaborative orientation prevail.

Thus, vertical logistics consolidation becomes the basic area for formulation/implementation of wider strategic collaborations.

The focus on logistics, infact, brings retailers and manufacturers to co-project other strategic activities of the value chain as marketing and customer services.

For example, with the implementation of Collaborative Planning, Forecasting and Replenishment, retailers and manufacturers expand the commercial relationship beyond price and margin towards the development of differentiation strategies.

In defining logistics operational activities such as delivery and stocks level, manufacturers and retailers make a joint business planning on the basis of analyse of consumer demand and behaviour. This is critical in order to meet better than competitors consumers' needs, that, over the last decade, have become more demanding, sophisticated and knowledgeable.

More over, the research of logistic efficiency brings manufactures and retailers to co-project packaging systems, delivery and visual merchandising equipments which reduce both handling costs and environmental impacts.

As regards the environmental impact, the powerful environmental protectionist movement in EU, which is a very important variable for differentiation in marketing and customer service, brings retailers/manufacturers to manage the supply chain in a “green way”.

The push for environmentally responsible products and operations encourages retailers and manufacturers to implement some environmental protection measures, that have an impact on:

1. Forward logistics through the reduction of packaging materials;
2. Reverse logistics through the return of packaging to the previous link of the supply chain in order to recycle waste.

Another “green” area of collaboration can be seen in the increasing of nighttime operating hours for delivery vehicles, in order to reduce day-time emissions and traffic congestion.

From an organisational point of view, effective vertical collaboration demands a reorientation of resources – from “functional silos” to interdisciplinary focus.

Many manufacturers and retailers establish cross-functional teams and cross-enterprises teams.

Retailers’ and manufacturers’ logistics, marketing and financial resources cooperate with sales/buyer personnel to provide a single face to the counterpart and, at the same time, each cross-functional team collaborate with the counterpart’s team.

This organisational structure encourages team members to work for an increase in the performance of the entire chain.

The vertical logistics consolidation stresses the collaborative orientation of retailer-manufacturer relationship. The collaborative orientation is necessary at the same time:

- To enhance customer satisfaction;
- To make the logistics integration in the retailer’s control more effective.

This strategic orientation brings to Supply Network Strategies, that deal with how companies activate relationships with suppliers in order to become more efficient and innovative<sup>6</sup>.

Since late 70’s, a number of studies in relationship marketing have created the basis for research in the organisational area that shifted focus from the internal process of organizations towards the organization-environment interface [17].

Thus, a new perspective of research in marketing and strategic management which stressed the importance of dyadic business relationships [5] emerged: the dyadic perspective has then been extended to networks where several firms are linked in interdependent relationships and governance structures [16, 22].

Considering both the horizontal strategies, that are pursued in order to gain scale in logistics activities and in the negotiation phase, and the vertical collaboration strategies in the supply chain, that are oriented towards a better performance, it is natural to ask which business model prevails: competition or collaboration.

In the manufacturer-retailer relationship, the business model is going towards co-opetion, that combines competition and cooperation between partner belonging to the same value net<sup>7</sup>: co-opetition includes horizontal collaborative relations as well as competitive relations in vertical and horizontal directions at the same time<sup>8</sup>.

From a supply-chain perspective this implies that the characteristics of competition might change, as discussed within the literature on the theme, from single company vs single company to supply chain vs supply chain .

As Achrol and Kotler [1] pointed out “marketing outcomes increasingly are decided by competition between networks of firms rather than competition among firms”<sup>9</sup>.

In this way, the quality of competition could be driven by the ability of players to set up such partnerships and not based on prices.

## The Supply Chain Reengineering Developed within a Large Italian Retailer

The retail market in Europe has become increasingly concentrated both at national and EU level.

The highly fragmented retail markets, consisting predominantly of traditional independent retailers, have shifted towards highly concentrated market, driven by a process of growth and mergers by leading retailers.

The result is the “marginalisation” of small independent retailers, that continue to act as convenience stores, and market domination by a limited number of large-format, multiple-store retailers that attract great percentage of consumer spending [6]. As they reach saturation level in their home markets and as opportunities for expanding their business continue to develop, big retail corporations have also tried to extend their operations internationally.

However, the retailer industry in EU varies, according to stage of development and business model, from nation to nation and region to region. It is known, for example, that the Northern retailer industry is more concentrated and sophisticated than Southern one.

Focusing on the Italian grocery retailer industry, we can easily find that it is characterised by a lower level of modernization than other European Country.

The Italian retail industry is generally fragmented and it is characterised by the presence of both traditional shops and large retailers.

The small city shops, infact, struggle to resist the competition from larger retailers.

The strategy of larger retailers is to compete with the small city small shops through pricing.

Larger retailers use their stronger bargaining power with suppliers, especially in Southern Italy where the market potential is still huge.

Resistances to change of goods producers and local state institutions, as well as lack of infrastructure (with severe consequences on logistical management), are the major risks to be managed.

In general, competition takes place not only at manufacturers’ level (brand vs brand) but also at retailers’ level (retailer versus retailer and retail format competition, i.e. discount store against supermarket, supermarket against drug store, supermarket against hypermarket), leading to a decline of brand, product and retail format loyalty.

The Italian way of retailing is based on the growth of the associations among small shops (Cooperatives). Another way is the Cooperatives among Consumers, recognised by the Art. 45 of the Italian Constitution Law, that pursue the consumer interest defence.

As regards the competitive structure, competition among retailers (especially the big ones) is based primarily on price<sup>10</sup>.

This focus on price at the consumer level has increased the pressure on negotiations with brand producers.

This characterisation shows why it would make sense to establish partnerships without reducing competition.

Coop Italia is the largest Italian distribution chain; it is a Consortia of Cooperatives (among consumers) operating in all the Italian Regions.

Its shareholding is made up of around four and a half million people that are the members of the 206 cooperatives of consumer goods operating across the territory, which in turn manage a network of 1,320 sales outlets, with a staff of around 43,000 of people.

It operates with 31 hypermarkets, 245 large supermarkets, 964 small supermarkets and 130 discount stores. This complex store base was replenished in Italy through a centralized distribution network of 22 warehouses for dry grocery and fresh products.

Since 1995, Coop has been one of the major players in the Italian ECR projects, providing time and efforts of experienced people in the development of a more efficient supply chain.

In recent years, some cooperatives belonging to Coop Italia integrate themselves, creating big Cooperatives (as Coop Lombardia, Coop Adriatica, Coop Liguria, Coop Tirreno, etc.) operating at regional o interregional level, aiming at gaining scale in same critical activities of the retailer value chain, such as negotiation, marketing, logistics.

It is important to note that Coop Italia and biggest manufacturers negotiate al national level to define contractual national standard (discount and bonus criteria, new product penetration, price spread, etc.), while

contractual specification (quantity, quality, price and time to delivery) are defined at Cooperative level or, in case of particular product, at hypermarket level.

As regards logistics, big cooperatives have already centralised the Distribution Centre from local level to a regional level (one for Cooperative), with the aim at gaining economies of scale in the warehouse management.

This process of reorganisation of logistics towards the centralisation is continuing and is now stressed.

Coop Italia is, infact, now testing on the reengineering logistic model in the manufacturer-retailer supply chain.

In the Nord West, Coop Italia acts through CoopLiguria, CoopLombardia and CoopNova that operate at regional level.

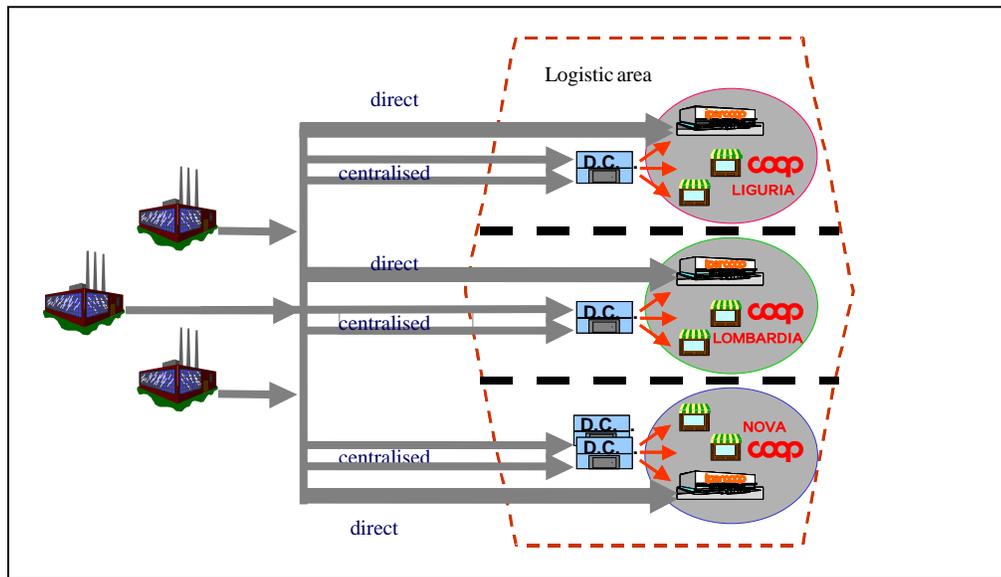


FIG. 2: THE PREVIOUS COOP LOGISTIC SYSTEM (Source: Coop Italia)

Since now, every single point of sales has always operated with a particular logistics system of replenishment (Fig. 2).

While Hypermarket (Ipercoop) orders directly to suppliers and has a personal warehouse, Supermarkets and Discounts send order-form to the regional Distribution Centre (D.C.) belonging to the same Cooperative.

Only for slow moving consumer goods, Hypermarket warehouse is replenished from the Distribution Centre (D.C.).

At the moment, Coop Italia is implementing a logistic reorganisation by the creation of an important logistic hub for the Italian Nord West Area, shifting the logistic hub from a local to an interregional level (*horizontal logistics consolidation*).

Coop Liguria, Coop Lombardia, Coop Nova are now co-jointed, from a logistic point of view, in a logistic area called *North West District Hub* which is served by a hub (D.C.) and four Regional Warehousing Points.

Logistically distinct management processes are projected both on groups of goods whose logistics requirements are similar regarding selling speed and on the distribution format (supermarket, hypermarket, discount store).

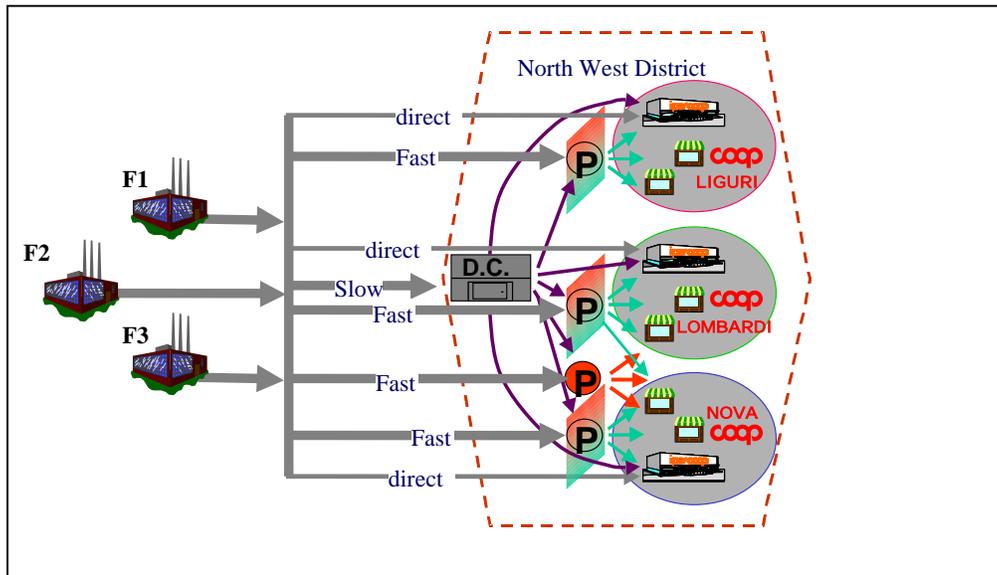


FIG. 3: THE DISTRICT LOGISTIC SYSTEM (Source: Coop Italia)

The *North West District Hub* stores and manages only slow moving consumer goods, while faster moving consumer goods (as fresh products) are stored by the Regional Warehousing Points (Fig. 3).

Because hypermarkets have wider and deeper assortment of goods, they are served contemporaneously by the Hub for slower goods, by Regional Warehousing Points for the fastest, and directly by manufacturers for goods that are sold only through this format, as, for example, non food goods.

Every regional D.C. limits its responsibilities to the storage and the transport of faster consumer goods to the points of sale (supermarket, hypermarket and discount), while the *North West District Hub* takes order and delivers directly to Hypermarket and to the four regional Warehouse Point for slower moving consumer good.

Faster moving consumer goods are replenished directly to the Warehouse Point (P.) or to hypermarkets.

The integration/centralisation of logistics has been supported by the implementation of significant investments in new technology (as EDI and extranet).

Coop Italia and North West District have implemented the EDI (EDI-enable) system in particular for the relationship with big and frequent manufacturers and extranet (web-enable) for contacts with small-medium or non frequent manufacturers. New Information and Communication Technologies are consistent with a supply chain managed as a pull and not a push system, according to the best practices defined by the Italian ECR initiative (ECR Italia).

The centralisation at the District level has provided significant opportunities for the three Cooperatives in reducing expenses, generating better returns on invested capital, and improving cash flows with a better stocks management.

Firstly, they can exploit economies of scale and optimise the use of resources and structural facilities; secondly the North West District Hub becomes a profit centre because manufacturers “pay” the economic benefits they obtained with the use of this logistic system through discounts and bonus for retailers.

The research for logistic efficiency and efficacy needs the manufacturers’ collaboration in order to co-project delivery process and delivery equipment that allow both to cut costs and to enhance consumer service (*vertical logistics consolidation*).

Manufacturers, infact, can benefit from the integration/centralisation of the logistic system implemented by Coop, achieving efficiency results that might not be achieved otherwise.

In particular:

- Cost transport reduction;
- Rationalisation of delivery process;
- Rationalisation of storage.

The centralisation of the logistic activities at the horizontal level is accompanied by the centralisation of other activities of the value chain such as negotiation with suppliers and strategic marketing.

As regards negotiation, the centralisation of logistics implies a centralisation of the negotiation phase (previously carried out at Cooperative level or at hypermarket level) in order to obtain better contractual conditions thanks to an increase in the bargaining power: it is, otherwise, obvious to observe that North West District buyers and manufacturers have to respect the contractual standards defined at national level.

As regards marketing, because the local differences in culture, taste, consumer preference and behaviour, the three cooperatives manage only commercial activities, focusing on the specific needs of the geographic area where they operate, while strategic activities are managed at District level.

More over, the implementation of processes of concentration of activities of the value chain in a local area may help to set up virtuous circles – through long-lasting and consolidated collaboration between resources belonging to different value chain activities– which could bring to an increase in the competitiveness of the entire North West District Hub and, consequentially, of the entire Consortia Coop Italia.

For example, marketing and logistics cooperate in defining promotion calendars and category management operational activities.

This characteristic shows how North West District Hub is different from a D.C. and from the Buyer Group, because of its responsibility on defining strategies and interregional marketing and commercial policies.

From an organisational point of view, some organisms allow the continuous and deep relationship between Point of Sales, Regional Cooperatives, North West District and Consortia Coop Italia.

The *Board of Directors of District*, formed by Cooperatives' Distribution Channel Directors (channel hypermarket and channel supermarket), the Consortia Managing Director and the Consortia Channel Director is responsible for the planning, the implementation, the control of strategies and the operational policies at Cooperatives and District level (relationships between Consortia, District, and Cooperatives).

The *Marketing Co-ordinator Board*, formed by District and Cooperatives' Marketing Managers, supports the Board of Directors of District in strategic planning, supplying data on local market and consumers (relationships between District and Cooperatives).

The *Operational Co-ordinator Board* is instead aimed at promoting continuous and intensive relationship among the single points of sale, the Cooperatives and the District, in order to collect data and experience useful to category management and Cooperative's Directors (relationship between point of sales and Cooperatives).

## Some Preliminary Observations

It is difficult to draw any final conclusions from the North West District project of Coop Italia.

It would be too ambitious to judge the effectiveness of actions aimed at enhancing the logistics efficacy and efficiency of Coop, only a few months after their institution.

However, we can attempt to make some preliminary observations.

The case-history suggests that the research for better performances in the retail industry is associated with organisational intervention in the logistic area.

In this area, infact, retailers can find inefficiencies whose cancellation (or reduction) could bring to gain better margins without increasing the final price.

The centralisation of D.C. at interregional level responds, in this way, to the necessity of gaining scale in the management of warehouse and in transport/delivery system.

The logistic reconfiguration becomes, also, the basis for a deeper changing process.

Firstly, also storage, marketing and strategic planning were centralised at District level: the governance of Cooperatives has changed significantly because the power has moved from Cooperatives to District.

Secondly, this centralisation has been implemented, aiming at having a powerful use of marketing and planning expertises and promoting the inter-functional collaboration (logistics, marketing, procurement).

Focusing on the role of logistics on the vertical relationship, it is obvious that the centralisation of Distribution Centre at District level is crucial to gain power in the negotiation phase, thanks to the consolidation of buying activities.

Otherwise, it is evident that the research for logistic efficiency and efficacy needs the manufacturers' collaboration in order to co-project delivery processes, packaging and delivery equipments that allow both to cut costs and to enhance consumer service.

As we have already underlined, the case shows that the prevailing business model is co-opetition that includes at the same time horizontal collaborative relations as well as competitive relations in vertical and horizontal directions.

It could be interesting to demonstrate whether the supply chain reengineering attempts the sources of competitive advantage for both manufacturers and retailers or for only one of the two members of the distribution channel.

It seems reasonable that retailers find in logistics an important source of cost competitive advantage.

The supply chain reengineering, instead, can't be seen as a source of competitive advantage for manufacturers, especially brand name manufacturers that pursue product differentiation. It rather represents a means of rationalising internal operative costs and reducing logistics facilities investments in order to focus better on their core business.

Further research could be targeted to confirming these preliminary findings.

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## End Notes

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<sup>1</sup> “Economic based arguments have largely been at the core of the channel literature so far. I has been used to explain how intermediaries emerge, what functions they perform, and on occasions to predict channel structure. The economic rationale is important but nevertheless incomplete; equally important strategic considerations are ignored”. Gattorna J., 1978, pag. 505: “The largely mechanistic orientation of the economic, institutional, and functional schools is partially offset and supplemented by the organisational and behavioural schools which introduce a necessary social element into the overall scheme”. Behavioral marketing “ to control the decision variables in the marketing strategy of any members in a given channel at a different level of distribution” (El Ansary A.I., Stern L.W., 1972, pag. 47).

<sup>2</sup> In the Preface of his Book, Porter said: “This book lies at the intersection between the mainstream economic research in Industrial Organisation and the preoccupation of research in business administration with the problems of the manager” (Porter M.E., 1976).

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<sup>3</sup> The logistic literature focuses on minimizing total distribution costs via trade-offs - especially trade-offs between transportation costs and warehouse costs and studies the flow of materials from primary producer to end customer is at focus.

<sup>4</sup> Continuous Replenishment Programme (CRP) changes the traditional replenishment process of retailer generated orders to one of partnership amongst trading partners where the supplier determines the replenishment quantities based on information on stock and sales received from the customer.

<sup>5</sup> Computer Assisted Ordering (CAO) is the preparation of an order through the use of computers that integrate information about product movement (as recorded by the point of sale equipment), outside factors that affect demand (such as seasonal changes), actual inventory levels, product receipts, and an acceptable safety stock level.”.

<sup>6</sup> . In recent years, increasing emphasis has been placed on the ways in which these relationships link companies in supply chains and networks.

<sup>7</sup> Co-opetition is a revolutionary framework that combines competition and cooperation (Brandenburger and Nalebuff, 1996) and is based on and on the principles of game theory.

<sup>8</sup> Brandenburger and Nalebuff (1996) suggest the concept of value net, which places a single company between customers and suppliers (= vertical dimension) who can be either complementors or competitors (= horizontal dimension).

<sup>9</sup> The focus is on the specific network aspects that impact development of other capabilities and resources or that strengthen competitive advantage or that improve efficiency and effectiveness in utilising other resources

<sup>10</sup> Especially in the food segment, great attention has been given to price positioning, because of the economic slowdown. Consumers are in a constant search for price, willing to change the shop, retailer and format.

# Opportunities of New European Countries in Outsourcing

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## Abstract

Central and Eastern Europe has become attractive region for foreign investments since it joined European Union (EU) in May 2004. In the last 15 years it has gone through difficult period of transformation from state-planned economy to the world where relationships are market oriented. Decision of investors from USA, old EU states and regions from Asia where to outsource production of goods and services is influenced by several factors. The new states of European Union attract investors for many reasons discussed in this paper as well. The paper focuses on main problems of economic transformation and points to key factors why Central and Eastern Europe has become very attractive region for investors from other parts of the world. Author also suggests what reforms are necessary to keep attractiveness and what are the main obstacles preventing more companies from seeking opportunities in the CEE region. Finally paper compares advantages and disadvantages with traditional outsourcing regions.

## Introduction

The goal of this paper is to point out how transformation to market oriented economy changed the Central and Eastern Europe (CEE) and what advantages this process brought to this region. Accession process before May 2004 pushed these countries ahead of old countries of EU in the structural reforms. One of the results is increased interest of investors despite the transitional problems which are still present in this region. Moreover companies from old EU seek new opportunities in the new EU countries due to the lack of structural reforms in the old EU countries specifically the inflexible labor market and fiscal problems resulting in high and complicated taxation schemes.

The paper is divided into three parts. The first part sets transformation of the region into the context of the EU accession process and highlights factors which indirectly helped the new EU states to increase competitiveness among other regions. The second part analyses short and long terms comparative advantages which lead to positive decision on outsourcing process within the CEE. One of the examples is opening of Hyundai / KIA car manufacturing factory in Slovak Republic. The focus is also given on the specific reasons of labor market inflexibility and other unnecessary costs increase forcing business movement from old EU states to the CEE region. The last part of this paper compares conditions more globally with other traditional outsourcing regions.

### Transformation Process

The region of Central and Eastern Europe (CEE) started transformation towards the market oriented economy in 1989 after fall of the Soviet Union. The region suffered from 40 years of state-planned economy which produced unnecessary, obsolete and unwanted goods and services. While supply side produced weapons for countries under the Soviet influence and imported sandals from Vietnam, demand side was served by black market using foreign currencies especially German Mark and US Dollars.

In the early 90's of the previous century companies were state-owned with obsolete business plans and the economy suffered from over employment [2]. Visegrad region (Poland, Hungary, Czech Republic and Slovak Republic) started structural reforms in all sectors. The public sector was no longer able to create the exogenously imposed full employment. Moreover, it showed a diminished productivity and a shortage of fresh investments. At the same time, the private sector was unable to absorb the resulting unemployment immediately [2]. Reforms started in the early 90's with the excessive devaluation of currencies opening trade to the West with free market, currency convertibility and almost no restrictions [10] [6]. While the policy of total privatization worked in general, there are mixed views on its total effectiveness [1], especially in the sectors with tendency to natural monopoly, such as telecommunications or oil industry. New privatized companies tend to improve their efficiency by drastic cuts of labor force. General consequence of these policies resulted in a high overall percentage of unemployed population. Budget deficits dramatically increased because the CEE countries used widely the unemployment benefits.

Countries were unable to finance social transfers, which made it impossible to decrease the payroll taxes and the taxation level in general. This is still a big barrier to raise employment levels and prevents increase of net wages.

Quick and correct decisions of judicial systems still remain a problem of the region. One of the biggest mistakes was to give the full independence to the judicial systems without their deep structural reforms. Judges from the previous era still remain on their positions, and their decisions are often unpredictable which prevents the non-discriminative treatment of all involved parties. There are several opened cases that involved the corruption of judicial system representatives. Self-governing powers given to the courts are not used properly to manage the system without the interference of the government or parliament. In general, these cases lower the confidence of population and market players. Many cases are opened several years for no obvious reason and the self-management abilities of the judicial system remain at relatively low levels.

Despite of the fact that countries have to finish some of the structural reforms, the commitment of national governments to economic reforms and sound economic policies has exerted a strong influence on subsequent economic and labor market developments in the CEE region [9]. The environment of permanent economic and institutional transformation decreased social resistance to changes. Therefore it is more likely to adapt sometimes very painful reforms such as the social system reforms facing demographic crisis, or tax reforms. Compared to the old EU, there are few countries that adopted business-friendly flat tax or more flexible employment laws. Now the discussion spread out within the CEE region facing quick positive results in the countries that adopted these strategies.

#### **Long Term Comparative Advantages of the CEE Region**

The CEE region cannot compete with the old EU countries in terms of highways penetration or established infrastructure. There are EU infrastructure funds helping to build roads and highways but a lot of time and substantial investments of local governments are needed to make situation comparable to the old EU countries. Therefore, these countries seek other comparative advantages. Sustainable high GDP growth is necessary to close the gap between the old EU countries and 10 countries, which joined EU in 2004. Massive state expenditures is the least desirable way of how to achieve the growth because it inevitably causes tax increase or high budget deficit, which needs to be sooner or later paid. Moreover, both of these consequences have detrimental effect on the corporate environment. Therefore, comparative tax system, structural reforms including social system with investment friendly working laws, and high skilled labor force are advantages that can help these countries in the long run. Furthermore, the competitiveness among the countries in order to attract investors removes harmful pieces of legislation in connection with the corporate world.

The concept of the flat tax mentioned earlier has already shown quick short-term results, but additional benefits are expected in the long run. Primarily, it offers a lower rate of taxation, which also reduces incentive for tax evasion. An important characteristic of the flat tax system is that it taxes all income once and once only, as close as possible to its source. In the progressive tax system, some types of income, like fringe benefits, are never taxed at all. Other kinds, like dividends and capital gains, are taxed twice: once at the corporate level and then again at the shareholder level. Even worse, some types of income, such as interest income, can be either taxed or not, depending on the taxpayer's ability to avoid taxation. Therefore, radical simplification of the tax system by removing any deductions or relieves, and by eliminating double taxation, allows the system to get rid of these anomalies [3]. According to Robert Hall and Alvin Rabushka from the Hoover Institution the flat tax plays a crucial role in making the decision to outsource [4].

$$\begin{aligned} \text{Business Tax} = & \text{Flat Tax} \times [\text{Total revenue from sales of goods} \\ & \text{less purchases of inputs from other firms} \\ & \text{less wages, pensions paid to workers} \\ & \text{less purchases of plant and equipment}] \end{aligned}$$

Countries like Slovakia introduced zero percent tax on the dividends as well, which creates even more friendly business environment for foreign investors. This advantage is not included with the flat-tax system, and it is expected to be included in the flat tax system later on. However, it currently makes the country more attractive when considering investment decisions in the region. Last, but not least advantage of the flat tax is the simplification of the whole tax system, which makes investments more predictable and decreases transactional costs. For example, the old system in Slovakia included 90 exceptions, 19 sources of un-taxed income, 66 tax-exempt items, and 27

items with specific tax rates. Finally, there are other advantages of the system, like the elimination of special interest lobbying groups, more control over the income, reduction of interest rates, etc. All these factors tend to increase fairness on the market, and the clear and readable markets is even more important for foreign investors than the total percentage of taxation itself.

Primary function of the social system is to keep social cohesiveness and help the people in difficult situations. According to German social theorist Luhmann [7], in the “properly” functionally differentiated societies, economic decisions are made on the basis of the economic communication medium which is money. However, in societies where the state plays major role, investment decisions are made on the basis of the political power. Now, money is a much more suitable basis for making economic decisions than power [12]. This was exactly true during the first years of the transformation of the CEE countries. Big state-owned companies employed redundant people and the governments feared that the privatization raises unemployment levels. Consequently governments provided these companies with “pillows”, such as protective laws that prevent other companies to enter specific markets, for example through high customs duties or by financing the loss of these companies. Secondary effect of such a behavior resulted in the extension of budget deficits and sent false signals to the state-owned companies about the sustainability of their business plans. Moreover, protective customs tariffs led to the increase of general price level. True consequences appeared when the governments found out that there is not enough money to finance everything, and they tried to sell these companies or stopped financing their deficits. Almost all of them collapsed when the protective measures were cancelled. This resulted in big amounts of unemployed workers who could not find a job within their region because a state-owned company often employed almost the whole region. These workers were unemployable and became burden of the social system. The main problem became long-term unemployment, and people who lost their working habits due to being in a social net for several years. These people have no ability to compete on the market. They used to work for one company twenty or thirty years, and they have no self-selling abilities whatsoever. Another reason of why these people remained fed by the social systems was a minimal difference between the wages paid by employers and the amount paid by the state as unemployment and other social benefits. Additionally, a lot of people worked in a non-official economy and paid no taxes. The countries were losing twice – primarily on government social transfers, and secondary on income taxes. Another substantial cause of high unemployment levels were overprotective rights of employees. Once the employer hired a permanent employee it was almost impossible to cancel the contract with very few exceptions in some extreme cases. This polluted even healthy companies with temporarily less work and had an exactly opposite effect. These companies were afraid to hire anybody, which practically eliminated the possibility to find a job for long term unemployed people over fifty years or other discriminated groups on the labor market. In order to create a favorable environment for investors, the governments had to stop financing ineffective state-owned companies, and start to support the environment when being employed pays off more than being unemployed. Furthermore, they have to create flexibility allowing companies to keep adequate levels of employees. Described measures combined with private pension plans, which are not connected to the state finances. This relieved tensions on budget deficit, which creates more resources for primary function of the social system. Finally, lower level of social transfers creates opportunities to decrease the cost of work for employers, which still remains relatively high.

Whereas the formerly discussed comparative advantages can be seen as corrections caused by a state-planned economy or as a reaction to an unfavorable demographic development, the last discussed reform allows competition with global players and might become a crucial reason of the success in globalization. No doubts that a good educational system creates a long-term comparative advantage that divides the poor and rich both in terms of their income and intellectual potential. However, academic education does not necessarily imply higher income. Higher income depends on the ability of an individual to meet expectations of other individuals on the market and in the society. However, academic education gives the individual better than average skills on the labor market. Moreover, it ensures such individuals better income conditions and certain status in the society as a comparative advantage [11]. From the globalization point of view we can look on the labor market as a worldwide human resources market. Therefore, such individuals can be viewed not only above average within a specific country, but rather within their region or worldwide.

Posvaneć and Mitosinka from F.A.Hayek Foundation define the following basic principles to achieve a higher quality of education [11]:

- Participation of students on the cost of education
- Competition of universities on free market
- Independent rating agencies

Financial participation of students on studying expenses achieves that the students are treated more like clients which on the other hand improves the quality of the education process. Universities that meet basic standards must be allowed to enter the market without any obstacles from the government. In case the universities want to award diplomas recognized by the state, they must meet criteria set by the government. On the other hand the students attending these educational institutions push them to meet these standards. Free entrance to the market followed by the creation of a legal environment that allows merging of the universities, to share the expenses as well as closing them down when becoming less attractive to students. These decisions have to be made independently by the universities with no state intervention. For example the university makes a decision to close down having financial debt caused by failure to provide market expectations defined by decisions of students not to attend such school. Independent rating agencies can monitor and assess the quality and comfort of the schools from students' point of view so that new participants coming from high schools as well as those already attending those universities. Last area where the government can assist are the courses helping long the term unemployed people to match current requirements of employers. Result of the educational reform is a skilled labor force with up-to-date knowledge requested by the market, and it is long-term advantage assessed by potential investors.

#### **Short Term Comparative Advantages of the CEE Region**

Short and middle term comparative advantages are the state investment incentives, widespread tax relieves for investors, labor market barriers for new countries in EU region and low income level. The state investment stimuli are a short-term comparative advantage used within the CEE region to compete when few countries are in a final round of decision where to invest. The maximum level of the government participation is regulated by the EU. However, the governments argue that when there are multiple equally rated options to invest they must provide an additional extra reason to attract the investor. While the short history proves this claim to be true to some extent, investors always mention skilled labor force and low labor cost as well. Therefore, this instrument should be carefully used for several reasons. First, the government can direct investments into the regions with low infrastructure quality which would be otherwise avoided by the investors. More details are discussed in the paper published by National Bank of Slovakia (NBS) [5]. Second, this instrument distorts free market where the conditions for one company differ from another. This intervention causes less than optimal behavior of other market players, or it can create a monopoly within the region. Third, apart from the government supporting economically backward regions the stimulation can have the multiplication effect on big investments. Decision of Hyundai/KIA to invest in Slovakia induced investments of companies which would never come otherwise. Some economists [8] oppose and claim that the same amount of money invested in small enterprises would increase the employment level even more rapidly.

As a part of EU accession process, the old EU countries were given an option to protect their labor markets for seven years and effectively prevent people from the new EU countries to participate in the employment process within the region. Almost all countries with few exceptions, for instance Great Britain and Ireland, closed their labor markets. For example Germany plans to use maximum period possible. It seems strange why this is a short-term comparative advantage or an advantage at all. Again market powers have shown that any distortions is paid heavily. The EU region was built as a trade region allowing free flow of capital investment and flow of labor. Consequently, when one of the foundations of EU was broken, the market found its way to get over it. However, when people from the new EU countries could not come to Germany, companies from Germany created branches all over the new EU region. They employ labor people for less money thus making some of the positions on German labor market obsolete. This is one of the reasons why businesses are fully or partially closing their offices and raising the unemployment level in the old EU countries. This process started by outsourcing manufacturing processes and continues with call centers.

Low wage level is a short term or at most a mid-term advantage, and the remaining time of this "incentive" depends on the country initial level of unemployment and the degree of government pro-market policies. Labor markets are not flexible and we can see them as many markets based on different previous occupation. Transition is easier within substitute markets and the level of available people with requested or similar skills is relatively high.

Average income level in the CEE region is several times lower than the one of the old EU countries. Unemployment is relatively high comparing with the old EU than economically reasonable supply of positions due to structural unemployment after several reforms like removing over-employment within public sector and state-owned companies. This situation will remain within 10 to 15 years period when investors with low added value will move further on. This gives sufficient time to finish structural reforms. Output of educational reforms should be visible during this period. Even though some employers will move further on, the role of governments is to ensure that new labor force entering the market is able to fill positions with higher added value. After the short terms advantages are depleted, the countries with the long term comparative advantages mix most suitable for investors will gain sustainable growth both in terms of GDP and population welfare.

### The CEE versus Traditional Outsourcing Regions

Decision where to outsource is influenced by several factors. Comparison of those factors between Central and Eastern Europe region and other traditional outsourcing regions is shown in Fig. 1:

Reason influencing outsourcing decision	Details	CEE Region	Traditional outsourcing regions
Barriers	Market entrance barriers and money flows	No barriers, no customs tariffs	Barriers for capital flows, protective customs tariffs
	Legislative barriers	No barriers with some transitional protective periods, Goods and services harmonized in high degree	Legislative barriers preventing entrance of non-harmonized goods and services or limited amount of import per country, export of some goods is heavily subsidized
	Internal EU market protection	No protection on goods and services coming from internal market, free flow of capital and goods	Protection against imports
	Labour markets	Free working possibilities after transitional period	Work permits needed
Exchange rate risks	Euro / US Dollar exchange rate risk	Whole EU will adapt Euro currency after transitional period	Exchange rate risks needs to be calculated in price. The same remains for non-US Dollar currencies
Proximity	Cultural proximity	Problems are solved more efficiently due to common history background. Call centres are one of the example	Sometimes difficulty to understand where is the problem. Retail customers facing call centres often have problems if nontrivial request will come in.
	Language proximity	Many countries and regions have similar languages or people know more than one language used in EU	English is the only main language of communication.
	Time proximity	Business hours are the same or maximum 1 hour difference	Time difference prevents solving problems where interaction is requested. 24/7 shifts is not always an option
	Distance proximity	In case coordination meeting is needed in person it is smaller problem within Europe	Regions like India are more difficult to reach both in terms of people in case person-to-person meeting as well as when hardware or infrastructure needs to be delivered
Costs	Labor costs	Income level is expected to rise	Income level will stay competitive

FIG. 1: COMPARISON OF THE CEE REGION WITHIN EU AND TRADITIONAL OUTSOURCING REGIONS

Apart from labor cost, which will become comparative disadvantage new countries of the CEE region can use natural reasons like proximity with old EU countries or barriers imposed by European Union. There are several other reasons influencing decision on outsourcing but they are controversial or hard / impossible to measure like level of corruption or stability of judicial system.

## Conclusions

The region of Central and Eastern Europe enjoys the period of economic growth. Successful countries within the region performed deep structural reforms. Some of these reforms, like social system reforms or tax reforms, need to be adapted by the old countries of the European Union. The new EU countries use short and long-term comparative

advantages to attract investors both inside and outside European Union. Proximity of CEE region to the rest of Europe allows potential investors to use similar culture, language capabilities, and the same time zones for profitable investments. Lack of market barriers within European Union allows effective allocation of resources without additional costs. Some advantages of the CEE region will disappear in near future. The successful players have to continue in reforms and keep the investment friendly business system to be prepared for the challenges of the global world.

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## Measuring the Value of Network Resources

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### Abstract

This paper is based on two perspectives, a system view and a view that considers networks as entities, by means of which we are trying to produce added value to discussion on networking. A network-level performance measurement system emphasizes win-win situations in the network between the leader company and the other members of the network. According to our framework, the network level performance measurement system is composed of factors enabling action and success, of processes, as well as of the productivity and profitability of activities. The main objective of the paper is to build a measurement system for analyzing the value of resources and competencies in the network as part of a network-level performance measurement system. The resource base of the network is comprised of the tangible and intangible resources of the individuals and the companies in the network, as well as of the compatibility and specialization of these resources.

### Introduction and Objective Setting

During recent years, the authorities have attempted to promote inter-firm co-operation very actively by trying to persuade small and medium-sized enterprises to enter different alliances. Nevertheless, the results have not always been flattering. Different promoters of networking have had limited knowledge about how to contribute to successful development in cooperative groups. Evidently, practitioners (consultants as well as entrepreneurs) do not have sufficiently effective tools at their disposal when trying to form networks. It is very conspicuous that there has been hardly any research about the management tools and the holistic performance measurement of SME networks. For instance, network accounting has been approached mainly theoretically, introducing some evident problems [Järvenpää, Partanen & Tuomela 2001; Tomkins 2001; Kulmala 2003]. Applying system level control mechanisms and performance measurement tools to a network is very important when managing networks. A network is not an intrinsic value but a tool to organize the operations between companies, and that is why there is so much interest in the ability of networks to succeed in their tasks. The companies in a network are interested in the benefits and costs of networking, the investors are interested in the revenue opportunities involved in a network, and the customers in the value chain are interested in the ability of the network to manage production tasks as well as or better than an integrated single company.

This paper is part of an ongoing study which is based on two perspectives, by means of which we are trying to produce added value to discussion on networking. These perspectives are a system view and a view that considers networks as entities. A network-level performance measurement system emphasizes win-win situations in the network between the leader enterprise and the other members of the network. Previous performance measurement systems have focused on the level of single enterprises.

According to our pilot study [Varamäki, Pihkala, Järvenpää & Vesalainen 2004], the suggested framework for a performance measurement system is composed of factors enabling action and success, of processes, as well as of the productivity and profitability of activities. The issues enabling success are (1) the values and culture of the network, (2) resources, competences, as well as the (3) modes of action of the network. The profitability of activities can be divided into the (4) profitability of internal processes, into (5) customer satisfaction and into the (6) financial key ratios of the network (see Figure 1). The *values and culture* of the network describe the mental state of the network through trust, commitment, partnership values and communication within the network, such as interaction

manners and openness. *Resources and competences* are connected in particular to the ability and capacity of the network to produce core output to business effectively and, on the other hand, to create and to develop new modes of action. The resource base of the network is comprised of the tangible and the intangible resources of the individuals and the companies in the network, as well as of the compatibility, specialization / overlapping of these resources. The *modes of actions of the network* describe the ability of the actors in the network to design and to exploit different modes of action in the network, for instance the elements and models of bilateral and multilateral co-operation.

In the network, the above-mentioned enabling elements (values and culture, resources and competences, modes of actions) are the *structural and operational choices, achievements and capabilities*, which are the seminal value drivers creating the base for the financial performance and profitability of the network. This performance could be evaluated by using the logic of the Balanced Scorecard (BSC). It is generally assumed in the causal logic of the BSC that a learning and well-being organization is 1) able to make innovations, and furthermore, 2) effective and high-quality processes. Moreover, if these innovations and processes are customer-driven, the firm or the network will achieve 3) satisfied and profitable customers. This customer satisfaction and profitability will be also reflected in the 4) overall financial success (profitability, solvency and liquidity) of the company/network, according to the logic of the BSC. In a well-run network, the profit is not divided in a zero-sum game, in which a profit increase in one part means a profit decrease in some other part.

Developing a performance measurement system for a network headed by a leader company is important from both a theoretical and a managerial perspective. The final research results will indicate how an ideally operating network headed by the leader company should operate. These results are needed in order to understand the successful and the unsuccessful development and performance of vertical networks.

In this paper, the focus is on resources and competences in networks headed by a leader enterprise. Resources are connected in particular to the ability and capacity of the network to produce core output to business effectively and, on the other hand, to create and to develop new modes of action. The resource base of the network is comprised of the tangible and intangible resources of the individuals and the companies in the network, as well as of the compatibility, specialization / overlapping of those resources. *The main objective of the paper is to build a measurement system for analyzing the value of resources and competencies in the network.*

When measuring their value, network resources can be divided, for example, into physical resources, human resources, competencies, capabilities, etc. In a broader scope, all the factors that are able to provide a competitive edge in the market could be considered as valuable resources. Hence, the value of the resource is the value of the process it enables, and the value of the process depends on the market. The challenge of resource measurement consists of recognizing at first the most valuable resources and of measuring then their value in their own context. The biggest challenge in developing and applying a network-level performance measurement system, however, is the level of analysis itself. By network-level analysis, in this study we mean a vertical network including a leader company and the first-level suppliers. Naturally, there are second-level suppliers, third-level suppliers and so on, but they have been left out of the analysis.

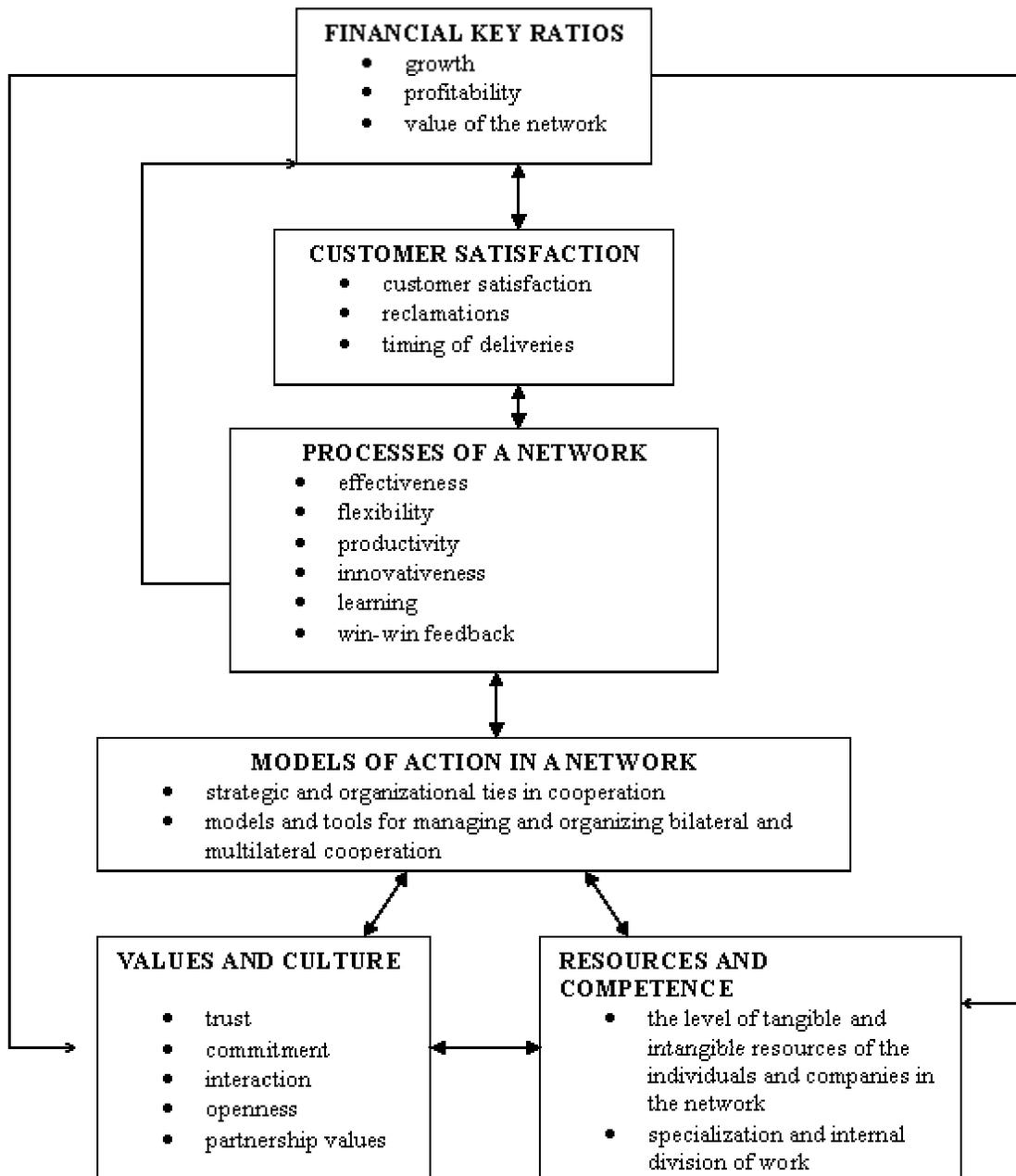


FIG. 1. A FRAMEWORK FOR ANALYZING PERFORMANCE MEASUREMENT IN NETWORKS.

### The Resource-based Theory of the Firm

The theory presented in this paper is based on the resource-based theory of the firm [or resource-based view, see e.g. Penrose 1959; Barney 1991; Peteraf 1993]. In the resource-based view (Rbv) the reason why firms exist is not the

avoidance of opportunism, as it is in the transaction cost theory (Tce) [see e.g. Williamson 1975, 1985]. Generally speaking, according to the Tce, the main purpose of the firm is to avoid negative and, according to the Rbv, to create positive [Conner 1991]. In the Rbv, the rationale behind the integration of economic actors is the ability of the firms to create, receive and exploit differential resources better because the value of the resource is dependent on the other resources and on the ability of the controller of the resource to exploit it. Hence, the value of the resource is different for each economic actor. Superior resources are able to generate rents, the profit that is not tempting other firms to compete for it, because of their less valuable resource-base and, therefore, higher costs or weaker competitiveness in the same market [Peteraf 1993; Mahoney & Pandian 1992].

The assumption in the Rbv is that, in an economy, the resources are not delivered equally, and, additionally, they are not perfectly mobile (Barney 1991). If the resources were delivered equally and they were perfectly mobile, every firm could choose and implement the same best strategy for the present situation, but, instead, firms implement the best suitable strategy depending on their resources. One solution to implement a more competitive strategy, which is not possible with the initial resources of a company, is to acquire the resources needed through cooperative arrangements. With cooperative resources, companies are able to do things they would not be able to do otherwise. Resource sharing has become the major explanation for cooperative behavior [see e.g. Combs & Ketchen 2003; Das & Teng 2000].

Resources are the factors of production owned or controlled by a company. They could be divided, for example, into material and immaterial resources or into technological, marketing and financing resources, or into physical, human and organizational resources [see e.g. Barney 1991]. Wernerfelt [1984: 172] considers resources as visible or invisible property permanently or semi-permanently connected to the company at a certain time, such as a brand, technological skills, skillful employee, contracts, machines, effective processes and capital. The range of valuable resources is wide, but to be taken into account as valuable, a resource must fulfill simple conditions: it must provide added value to the customer or it must have the potential to provide value in the future [Fahy 1999:5]. For example, certain organization form is a valuable resource only if it is able to provide added value for the business process [Lewin & Phelan 1999: 5], and we must also remember that resources *per se* are not valuable, they only have the potential of providing value adding processes. Production facilities or a brand are not valuable if the company is not able to use them to add any value to the customer. From the strategic point of view, a resource is valuable if, by the aid of the resource, the company is able to implement a strategy that decreases the costs or increases the incomes, when compared to the strategy without it [Barney & Arian 2001: 138].

Certain resources can yield sustainable rents, which is also the base of a sustainable competitive advantage (SCA) over other competing firms. Barney [1991] defines sustainable competitive advantage (SCA) as follows: a firm has a *competitive advantage* if it implements certain value creating strategy, which, at the same time, is not implemented by any of its competitors or potential competitors, furthermore, firm has a *sustainable competitive advantage* if any of its competitors or potential competitors is not implementing it and, additionally, is not able to implement it, either. A competitive advantage is sustainable if it still remains after attempts to copy it [Lippman & Rumelt 1982]. According to Barney [1991], to generate a sustainable competitive advantage, the features required for the resource are value, rareness, imitability, and substitutability. A resource has value if it provides better opportunities for the company to reach the opportunities or defend itself against the threats in the company's environment. The above-mentioned requirement for rareness refers to rareness among the competitors and potential competitors of the company, not to absolute rareness in the whole economy. On the other hand, in an economy, value always depends on rareness. Barney's concepts of imitability and substitutability are about the same issue, because what counts is the functional differences between resources, not the ways the function has been reached. Grant (1991) adds transferability and transparency to the list of value indicators, to which Collis and Montgomery (1995) further add durability and competitive excellence [see more e.g. Rumelt 1984; Mahoney & Pandian 1992; Amit & Schoemaker 1993]. Nevertheless, it is possible to reduce the list of value indicators suggested by different authors into the attributes of value, difficulty in copying and the owner's ability to utilize the resource [Fahy 1999: 5]. Resources that are easy to buy in the market could not be the source of a sustainable competitive advantage [Dierick & Cool 1989].

The above requirements for resource analysis were defined from the viewpoint of one single company. When considering the value of resources in a network environment, the features of resources appear in a different

light. In a network, the other companies might be cooperating partners, not hostile competitors. For example, in the network context, the transferability and visibility of resources could be considered as value generators, not value reducers. Furthermore, in the case of single enterprise, the value of resources depends on the initial resources of the enterprise, while, in a network, the value of resources depends on the complementarity and compatibility of the resources with the other network companies' resources. Hence, it is important for the network partners to see and to know each other's resources in order to utilize the whole potential of the network, not just the potential of their own. This and some others issues, considering primarily the Rbv and networks, are discussed below.

## Resource-based View and Networks

The confined view about limited resources can be extended to a more useful theory when supplementing it with the theories of organizational co-operation, co-operative strategies and reciprocal strategic dependence [Barney 1991; Young 1995]. According to the resource-based view, the competitiveness of a business network depends on the resources it possesses and the effectiveness of combining them. The resources that different companies bring to the network can be similar and complementary or new and additional. The effective operations of the network require the efficient exploitation of the resources in accordance with the objectives of the network. At the same time, the network may possess and suffer from unfitted additional resources and the surplus of complementary resources [Das & Teng 2000: 12].

Traditionally, the networking progress has been analyzed through the transaction cost theory, when trying to explain the ultimate reasons and logic behind the integration of individual economic actors into companies as well as companies' integration into business networks. Networks are considered as the intermediate control form of economic activities between markets and hierarchies [see e.g. Williamson 1975; 1985; Adler 2001]. The transaction cost theory emphasizes cost minimization in the sum of production costs and transaction costs while considering also the opportunities involved with networking and cooperative arrangements [Coase 1937; Williamson 1975]. In contrast, according to the resource-based view, the rationale of network co-operation is the value maximization of a firm through pooling and utilizing valuable resources [Das & Teng 2000: 4]. The firms, then, attempt to find the resource boundary that gives the best value when combined with their own resources. In the transaction cost theory, one essential term, asset specificity, is described with the term 'quasi-rent' (or 'Pareto-rent'), which is about the difference of the value of a resource in its best use and in its second best use. In the case of cooperation ending between two companies, if quasi-rent is involved in the relationship, the companies will lose the value of the quasi-rent. The same topic is also the key element in the Rbv, which considers asset specificity as a generator of firm-specific rents. According to the Tce, companies try to protect themselves from high quasi-rent and, correspondingly, in the Rbv, companies search for ways to earn rents and when rents are found, they try to protect them from their competitors as long as possible. The smaller the number of firms with the same valuable resource, the better the opportunities for the firm to earn rents. But we have to remember that access to the resource and the control of the resource, not the ownership of the resources, are the requirements for earning rents. This encourages companies to networking progress whereas the Tce sees networking progress rather as a risk. The aim and the rationale of a networking process, when considered from the resource-based point of view, is (1) to obtain others' resources; and (2) to retain and to develop one's own resources by combining them with others' resources [Das & Teng 2000].

Firms could be considered to earn rents also through acquisitions of other firms, if the new combination is then more valuable than the firms separately. This same logic is the rationale behind networking progress. Firms have different abilities to utilize the resources and rents could be earned by combining the resources of the firms within the network with the aid of cooperation [Ring 1996]. The success of the whole network as well as relational rents could then be earned, if resource utilization is then more effective or resource combinations are more valuable than they were initially. Ring [1996] defines the concept of cooperative sustainable advantage (CSA), which is the outcome of relational rents, based on the Barney's definition of sustainable competitive definition (SCA) as follows: *the implementing of certain strategy, which is not implemented by any other firm with whom the firm is not cooperating, and whose benefits the other firms could not copy without cooperating with each other* [Ring 1996:25].

In this article, we are considering rent giving resources in a broader sense, which includes all the assets and all the competencies and capabilities, as well. Invisible assets, competences and, especially, capabilities have recently been in the most critical role in the Rbv [see e.g. Prahalad & Hamel 1990; Stalk, Evans & Schulman 1992, Long & Vickers-Koch 1995, Teece, Pisano & Schuen 1997; Lippman & Rumelt 2003; Winter 2003; Helfat & Peteraf 2003; Adner & Helfat 2003]. The capability approach has begun to move resource-based thinking more towards the view in which the most critical and valuable resource is the resource that releases the value of the business process (capability), not the resource itself in the business process (competencies). Competencies and capabilities are sometimes difficult to separate clearly and opinions about them differ in the literature [see e.g. Long-Vickers & Koch 1995; Stalk, Evans & Schulman 1992]. The distinction between them is still relevant when considering the opportunities in network economy.

Capabilities (or core capabilities) add value by combining and coordinating the valuable resources such as core competencies [Stalk, Evans & Schulman 1992]. The core capabilities are the resources most difficult to copy, because they are based on interaction and complicated value adding processes [Collis 1994]. Compared to core capabilities, core competencies are considered to be more closely connected to a certain part of the value chain and to certain technology [Long & Vickers-Koch 1995].

Teece, Pisano and Schuen [1997] consider firms' abilities to combine, construct and to redeploy internal and external competencies to fit to the fast changing environment [see also Winter 2003; Blyler and Coff 2003]. They use the term 'dynamic capabilities' to define the flexibility of a capability. The dynamic capability approach gives new potential to the Rbv approach and additionally combines the Rbv, the Teece and the social capital theory to the context of networks. For example, Blyler and Coff [2003] consider social capital together with dynamic capabilities as the requirement for recognizing the resources, earning the access to the resources and for combining and releasing the resources. Their opinion is that without social capital and dynamic capabilities, resources would be more or less unfitted to the changing environment. Social capital could be seen as a source of opportunities and a source of continuous redeployment ability. The dynamic capability approach reveals the fact that some companies do not have strong physical resources or technical skills, but they still can offer added value to the companies in a network. In this sense, when considering the value of the resources in a network, we have to be able to measure, for example, the value of market information, entrepreneurial skills or relations to the customers or suppliers, all of which could be considered as capabilities or dynamic capabilities and, therefore, valuable resources, which some companies in the network might possess. When trying to measure the value of the resources, it is important to recognize the different roles of the resources in business processes, the different features of valuable resources and the connections and dependence between the resources in the network. The resource-based view facilitates the categorizing and analyzing of the resources in the business network. The categorization of resources is presented in Fig. 2.

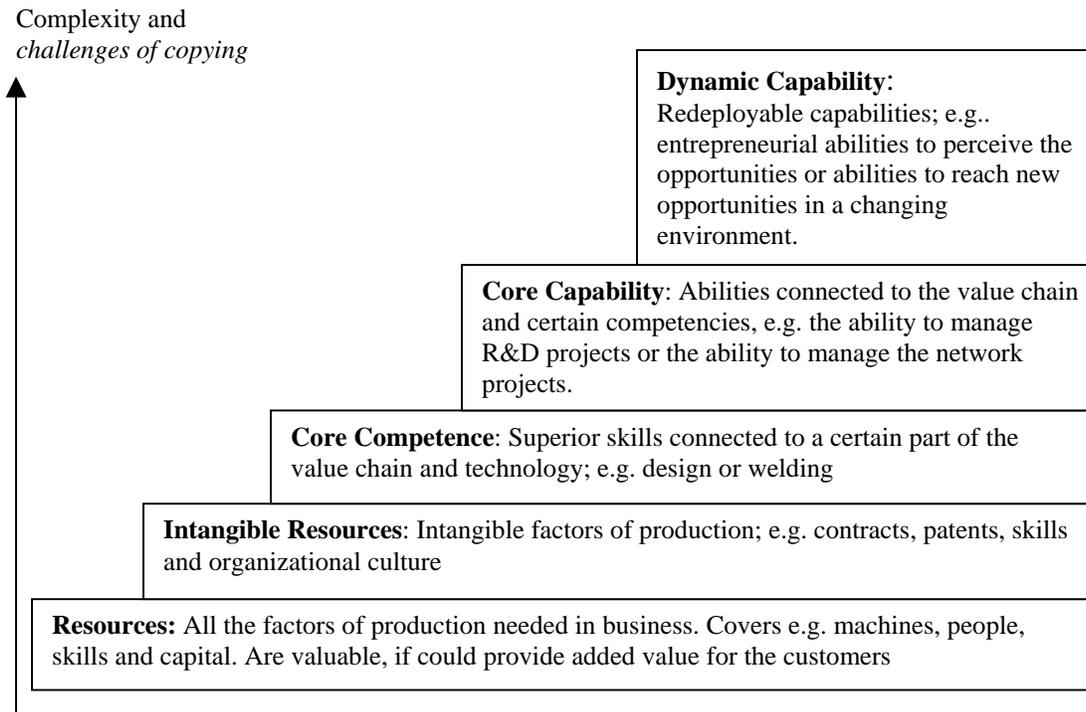


FIG 2. RESOURCE CATEGORIZATION.

The features of resources are more complicated and, moreover, more difficult to copy when moving up in the figure. At the same time, the challenges of exploitation get bigger for the companies controlling the resources. In the recent years, the focus of the strategy research dealing with resources has moved towards the analyzing of the upper categories in the figure.

### Resource Measurement in the Network headed by a Leader Company

When considering the resources in the network environment, the value of the whole network and its resources could be described as the sum of the (1) resources fit with customer needs, (2) the co-operation ability and willingness of the network and (3) the entrepreneurial capability of the network to reach new business opportunities. This means that the resources within the network are valuable only when particularly the leader company of the network is able to see the potential of the network resources correctly and is able to co-operate with the network resources and their owners and, at the same time, is able to coordinate the resources to fulfill the customer's existent or potential needs. In an ideal case, the network acts like an entrepreneur, who knows his resources and capabilities and is able to harness them to reach the emerging business opportunities. Compared to single entrepreneurs, the potential of the network to reach different opportunities is multiple, but also the difficult coordination of the network resources and friction between these resources could make the network less efficient and effective than single entrepreneurs.

This model of resource measurement within the network aims to be a tool for analyzing the subjective value of the network resources within their own context. The purpose is not to find the absolute values or market prices for the resources. The main contribution of this type of tool and measurement process could be that it allows the companies to see positive or negative progress within the network by the aid of longitudinal measurements. In many cases, companies are most interested in the direction of the change and do not regard accurate figures as essential.

The value of a resource depends on the process it enables, and the value of the process is determined by the market where it takes place. Hence, the demand of the market and the competition among the companies in the market are essential value drivers. The ultimate value of the resource depends on the resources fitted to the customers' needs. When operating in a leader enterprise network, the leader enterprise is the customer of the first-tier suppliers, and the suppliers in the first tier are the customers of the second-tier suppliers, etc. The important issue is how well the suppliers' resources fit to the resources of the customer. And, additionally, fitness is not the only requirement, because the ability to utilize the resource as well is also necessary and in utilizing it the biggest issue is the companies' ability to co-operate. The process that the resource of the supplier provides must have interaction with market demand through the customer's acts - in this case, the leader company's acts. Without the willingness and ability to cooperate, the resources of the network will not have that interaction and the value adding potential will be lost.

From the customer's point of view - in this case, from the leader company's point of view - one additional requirement for the full utilization of the resources in the network is the ability to recognize and to evaluate the resources correctly. Without it, the leader enterprise is unable to use the resources in the strategy. The strategy can be built upon the resources that are known and reachable. If the leader company does not know the resources of the network or makes an inadequate evaluation of them, it is forced to build its strategy upon its own resources. The sum of the perceived value of the network resources for the leader company is the comparative value of the suppliers' resources in relation to the value of the resources of their competitors and the leader company's valuation of them. The better the valuation, the better the opportunities to bring the resources into interaction with market demand. Again, without cooperative skills and willingness to cooperate, which could be considered as social capital, the evaluation process of the network resources is often too demanding and likely to be inaccurate.

The conspicuousness of resources can be evaluated by asking a supplier about his strengths and weaknesses and by comparing the information obtained with the customer's opinion about the supplier's strengths and weaknesses. The supplier can be expected to know his own strengths and weaknesses more accurately than the other competitors in the field; however, what is essential for the leader company and the network is the extent to which his customers are aware of them and how well the customers can utilize their potential.

In Fig. 3, the overall framework for the measurement process of network resources is presented. The measurement starts from **the resources of a single supplier**, continues with the evaluations of the **awareness**, **familiarity** and the **applicability** of the resources and ends with the evaluation of the **allocation and development practices** within the network. The logic in the measurement tool is that these dimensions will **provide the assessment of the value and of the value potential of the resources within** the network headed by the leader company. This framework constitutes a ground for operationalizing the value of resources in networks.

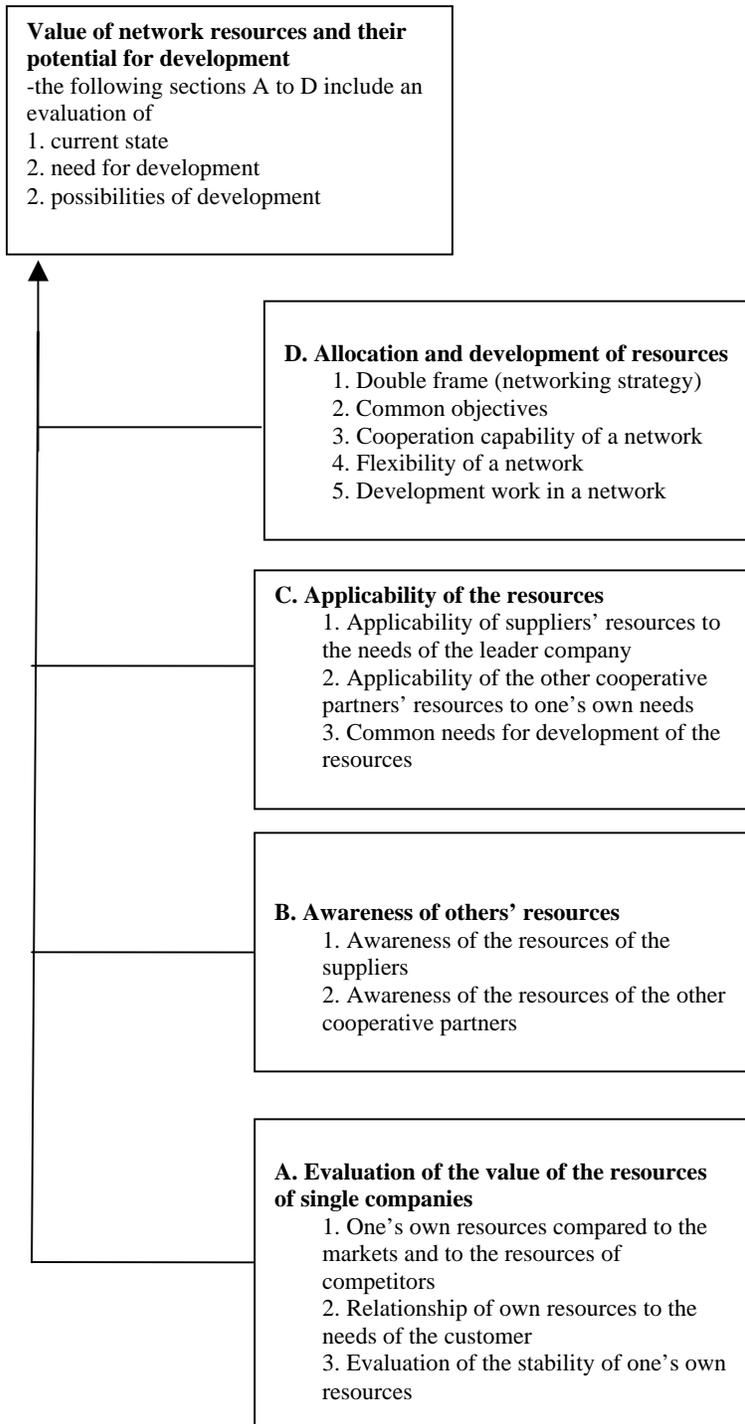


FIG. 3. FRAMEWORK FOR MEASURING RESOURCES.

In the following, the different sections of the framework have been operationalized.

**Questions related to Section A.** (Scale 1=strongly disagree – 5=strongly agree).

1. The technical service we offer our customers is rare in our region.
2. The integrated service package we offer our customers (delivery deadline, delivery reliability, price, capacity, extent) is rare.
3. In certain things, we are clearly better than our competitors.
4. The service we offer is essentially connected with our customer's core know-how
5. Our customer's activities are strongly dependent on our enterprise.
6. It is difficult for our competitors to copy our strengths.
7. Our relation with our customer would be difficult to replace by a new supplier.

**Questions related to Section B.** (Scale 1=strongly disagree – 5=strongly agree).

1. We know very well our suppliers' capabilities to serve us in relation to both quantity and quality.
2. We are aware of possible complementary know-how and resources with our suppliers.
3. We know the products and services offered by our customer well, regarding both quantity and quality.
4. We are aware of possible complementary know-how and resources with our customer.
5. We know the products and services offered by the other enterprises in the network, regarding both quantity and quality.
6. We are aware of possible complementary know-how and resources with the other companies in the network.

**Questions related to Section C.** (Scale 1=strongly disagree – 5=strongly agree).

1. The products and services offered by our suppliers correspond well to our needs, also in the future.
2. In their activities, our suppliers concentrate on factors essential for our strategy (e.g. product development, price, quality, delivery reliability, flexibility, etc.).
3. What we primarily want from our suppliers is a priority also in our suppliers' activities (e.g. price, quality, delivery reliability, etc.)
4. In our network (the other enterprises in the network), there is no significant overlapping know-how.
5. The know-how and resources of the other enterprises in the network complete our own know-how and resources.
6. The business activities of the other members of the network are mainly in lines in some way connected or touching our own activities..
7. The development of the resources among the members of the network would help us serve our customer better.
8. The joint development of the resources of the network is essential for the competitiveness of the network.
9. The joint development of the resources in the network would help us develop our own business activities.

**Questions related to Section D.** (Scale 1=strongly disagree – 5=strongly agree).

1. In addition to our enterprise's own strategy, we have a common network-level strategy, which also acts as a guideline to our own activities.
2. We feel we are "in the same boat" with the other enterprises in the network.
3. The enterprises belonging to the network have highly similar goals regarding their business operations.
4. The enterprises in the network are able to cooperate in a straightforward and fluent way.
5. Our suppliers adapt themselves rapidly to our changing needs.
6. We develop know-how and learn new things with the other members of the network.
7. We discuss the future investments of the network together with the other members of the network.
8. We seek to develop different roles for each enterprise within the network.

The above questions related to evaluation focus on the evaluation of the relative value of resources. However, we must bear in mind that, at each level, attempts can be made to assess also the absolute values of resources.

## Discussion

After the present theoretical part, the aim is to continue the study by testing the above-mentioned operationalized measurement system with four vertical case networks. Developing a performance measurement system for a network headed by a leader company is important from both a theoretical and a managerial perspective. The final research results will indicate how an ideally operating network headed by a leader company should operate. These results are needed in order to understand the successful and the unsuccessful development and performance of vertical networks. The benefits of this research for practical actors, entrepreneurs, small business managers, network promoters, authorities, and network investors will be the following:

1. It is possible to inform companies and other practitioners of how a network headed by a leader company acts ideally in different areas of networking.
2. Members of networks and investors in networks are able to use the ideal model for a network headed by a leader company as a tool for analyzing, evaluating and developing networks.
3. Within networks headed by a leader company, it is possible to utilize this model to consider a suitable networking strategy and to choose the most suitable level of networking.
4. The ideal model to be developed allows companies, consultants, authorities, and investors to use it as a tool for education.
5. The ideal model will produce new innovative methods and ways of action.

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## End Notes

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# Developing a Concept of Network Strategy The Theory of Network Governance

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## Abstract

Networks as a form of organization have achieved increasing attention in recent years. On the one hand, the interest has focused on vertical networks, researchers discussing about vertical integration and disintegration. On the other hand the interest has been on horizontal networks, from structurally loose cooperation forms to joint ventures. In this research, the object of this study is the management of a supply chain. The topic is approached through a semi-theoretical research, by which we mean a theoretical study, which uses examples. The main question of the research is: Which are the components of a network strategy?

## Introduction

Networks as a form of organization have been studied by the researchers since the late 1930's, when Ronald Coase (1937) published his article concerning the nature of a firm. Different approaches to networking have been developed. In this study we apply the transaction cost theory based on the new institutional economics. Transaction cost theory was developed by Coase and further developed by Williamson (1975; 1985). The ideas of this article are developed from the basis of the transaction cost approach (Williamson 1985). As the transaction cost approach discusses make-or-buy –decisions, it concerns the question of how to define the borders of a firm (Rindfleisch & Heide 1997; Klaes 2000). The latest research has added the third mechanism of governance to the theory: the social mechanism: a) trust and b) feeling of community. Transaction cost approach defined two mechanisms of governance: 1) price and 2) authority.

The theoretical discussion is wide and dispersed, but empirical evidence which is especially related to systemic model of governance mechanisms, which develops the concept of network strategy is lacking. Powell (1990) and Bradach and Eccles (1989) began the development of this idea of different governance mechanisms of partnerships and strategic networks on the basis of the transaction cost theory. A wide range of research has been conducted on the basis of the transaction cost theory, but less from the three dimensional and systemic viewpoint.

Some definitions need to be given. Governance is a concept, typically used in the studies of strategic network. By governance, we refer to management of the supply chain, and with strategic network we refer to supply chain governed as typical partnerships are. In the literature, researchers identify three forms of organizing (markets, networks and hierarchy) and three forms of governance (price, trust and authority) (Bradach & Eccles 1989; Adler 2001). In this research, the concept of network strategy is developed through these three different mechanisms of governance. Also the practical implications are made explicit.

The need for the concept of a network strategy arises from the empirical world. Often contracts are made and processes are described and developed, but the leader company has neither a pricing strategy nor a strategy concerning the social dimension of the relationships. This research includes a comprehensive model, which defines a complete network strategy combining the network and relationship literature to the logistics literature. The model introduced here, and based on the previous literature has three dimensions: 1) Markets (Price) 2) Hierarchy (Authority: working procedures and processes) 3) Networks (Trust and community: the social dimension of the relationship). The contribution here relies on the idea of network strategy and in the combination of logistics, pricing, and cultural aspects of relationships. These mechanisms of governance have been explored before, but without combining the strategy (supply management: contracting) with operations (buying, warehousing and supplying).

In this research, the case examples come from the Finnish metal- and electronic industry. Typically, in these industries the markets are imperfect. This means lack of competition between component- and system suppliers. Often the lack of competition is compensated either through authority meaning the usage of credible threats, or by using trust as a social mechanism. However, the usage of different mechanisms is neither conscious nor systematic. This explicates the need for the concept of network strategy.

**Governance of Strategic Networks: Dimensions of Network Strategy**

Within certain limits, organization theory focuses on governing behavior on different levels of society. Typically, researchers divide governance into a) society- b) regional c) network d) firm e) team and f) individual level. The authority (State, municipality, leader company, superior) needs to govern the attitudes, intentions and behavior of citizens. In this research, a partnership and further a strategic network is the unit of analysis.

The theory of governance is developed on the basis of the transaction cost theory created by Coase (1938) and further developed by Williamson (1975; 1985). The theory focuses on the decisions made when deciding whether to outsource or not. However, the theory concerns more about governing the behavior, as the two basic assumptions of the theory describe individual as 1) opportunistic actor, which is 2) boundedly rational. The first assumption implies that some individuals, not all, are willing to lie or cheat in order to gain advantage such as profit (Williamson 1985). This notion of an individual as an opportunistic actor is widely criticized by the researchers of organizational behavior (Ghoshal & Moran 1996). This kind of assumption is argued to develop into a self-fulfilling prophecy (Perrow 1986; Ghoshal et al. 1996).

The second basic assumption suggests that individuals are rational decision makers, but only limitedly so (Simon 1958; Williamson 1985). The neoclassical economics assumes that an individual is perfectly rational decision maker with perfect knowledge. The imperfect knowledge and bounded rationality develops the opportunities for entrepreneurs in the markets (Kirzner 1978). The Austrian school of entrepreneurship interprets the entrepreneur as a new opportunity seeking individual (Kirzner 1978).

In his classical sociological article Granovetter (1985) discusses of the problem of order. The mechanisms of governance provide different solutions to problem of order (Fig. 1). In this research the governing unit is the leader company of a strategic network. Sometimes the leader is defined as the peak company or an integrator company (Varamäki 2001; Vesalainen 2002). This discussion is divided into three different dimensions: 1) markets (price), 2) hierarchies (authority) and 3) networks (social). These different forms of governance form the framework for the discussion in this chapter.

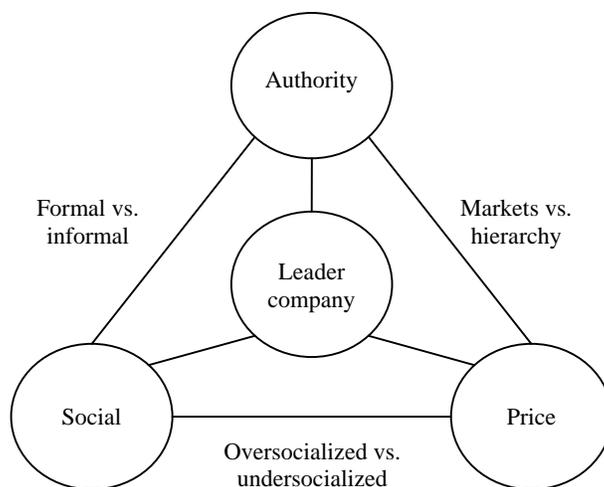


FIG. 1. THE GOVERNANCE MECHANISMS OF A STRATEGIC NETWORK (SEE ALSO POWELL 1990; BRADACH ET AL 1989; MITRONEN 2002).

Fig. 1 suggests that in their extreme forms the different mechanisms of governance close each other out or make the usage of any other mechanism than the one in its extreme form unnecessary. In the Adler's (2001) research, these dimensions exist in three different continuums in which the choices of the different leader companies' vary. The different mechanisms can be used simultaneously, as the Fig. 2 suggests. According to this argument, an organization can be simultaneously reasonably entrepreneurial, hierarchical, but also community like, which means that the members experience true feeling of community (Ouchi 1980; Bradach & Eccles 1989; Powell 1990).

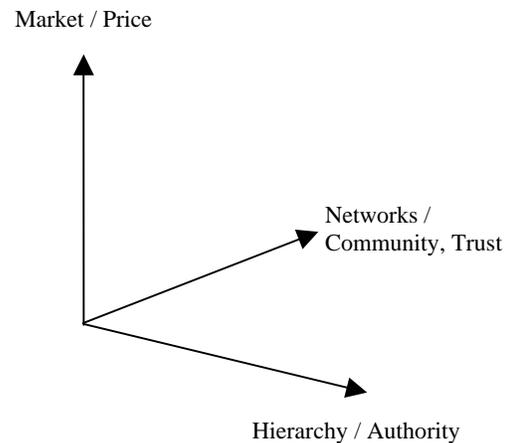


FIG. 2: THE INDEPENDENT EXISTENCE OF THE GOVERNANCE MECHANISMS.

**The Different Forms of Governance**

The theory of governance focuses on the solutions to resolve the free riding problem (Williamson 1985; Perrow 1986). The core of the discussion emphasizes the coordination of the social life on the macro level of a society, but also on micro level the coordination in the firms and strategic networks. Different institutions face the same problem of coordinating the behavior of individuals to act consistently with the strategies of the strategic network. The efficiency of the behavior is the other problem (the free riding problem). The different mechanisms of governance focus on resolving these problems.

**The Extreme and Intermediate Form of Price**

The extreme form of a market which uses price as a mechanism of governance develops into the hobbesian “war of all against all” (Hobbes 1968). It is argued here that in the perfect market the “hobbesian” war would prevail. This was the assumption of Hobbes (1968) when considering the nature of man. The war of all against all develops an interesting analogy to consider the phenomenon, which exists in the perfect markets. The argument is that from the individual point of view, the extreme market leads to harmful results even if the price mechanism in its intermediate form is often seen as a positive one.

TABLE 1. THE OBJECTS, MECHANISMS AND ANTECEDENTS OF PRICE

Dimensions	Components
Objects	<ul style="list-style-type: none"> <li>• Products</li> <li>• Services</li> <li>• Individual</li> <li>• Team</li> <li>• Organization</li> <li>• Strategic network</li> </ul>
Mechanisms	<ul style="list-style-type: none"> <li>• Price</li> </ul>
Forms	<ul style="list-style-type: none"> <li>• Market price</li> <li>• Value –based price</li> <li>• Cost –based price</li> <li>• Freedom</li> <li>• Risk</li> </ul>

Object of pricing is naturally the products or services, to which the price is determined. However, the mechanism governs the behavior of individuals, teams, organizations, and networks as they are the actors in the market.

The pricing strategy develops the basis for a dialogue concerning the strategy of the network. The development of the strategy builds up onto basis of pricing. Typically, firms use competition as the basic mechanism, for defining the price: price for the product or services is defined in the markets. However, in different industries exist suppliers without any local competitors. In these situations, pricing is often implemented basing on the costs. The third alternative that is often used in pricing is the value–based model. In this model the price is defined basing on the expected experience of the customer. However, companies also mix the different pricing models using the market and cost based pricing simultaneously.

The claim here is that the leader company should decide how to govern the strategic network, the individual supplier, and/or the suppliers of the different component types. What is the level of competition, how many competitors with the right price level are there and how long is the learning curve with the products? These elements basically determine the possibility to use the price mechanism.

**The Extreme and Intermediate Form of Authority**

Researchers have argued that the hierarchical rules, regulations, and authority are the governance mechanism of a network (Bradach ym. 1989; Powell 1990; Adler 2001). At the highest level of vertical integration, the network forms a company. However, in network the leader company may use extremely high level of authority. In the Machiavellian sense, the authority is used to subjugate the citizens, or the employees under the will of the authority. So instead of the price, the governance of the behavior of the suppliers relies on the authority.

TABLE 2. THE OBJECTS, MECHANISMS AND ANTECEDENTS OF AUTHORITY

Dimensions	Components
Objects	<ul style="list-style-type: none"> <li>• Individual</li> <li>• Team</li> <li>• Organization</li> <li>• Strategic network</li> <li>• Institution</li> </ul>
Mechanisms	<ul style="list-style-type: none"> <li>• Legitimate authority</li> <li>• Obedience</li> </ul>
Forms	<ul style="list-style-type: none"> <li>• Power / dependency</li> <li>• Regulations / contracts</li> <li>• Logistic processes</li> <li>• Orders</li> <li>• Instructions</li> <li>• Audits</li> </ul>

Behavior of individuals, teams, organizations, and strategic networks are sometimes governed through authority. The authority has to be legitimate in order to produce obedience in the actors. This dimension of authority is an important one combining the contracting and logistics. In the metal and electronics industry, this dimension is well developed.

The hierarchical organization is the second dimension of the network strategy. This dimension is typically far developed, especially in the metal and electronics industry. It includes the a) contracting, b) logistic processes, c) audits, and d) usage of the authority. Contracting is often in the interest of both of the parties. In the literature the academics discuss if it is possible to replace the contract with trust. However, these different elements of contracts and trust are not opposite. Often, trusting partners use contracts to structure the discussion. The contract is one way of making explicit the issues and agenda, which the partners have to discuss. Secondly, valid and explicit process descriptions develop a common understanding about the relationship (exchange) processes. However, often all the processes cannot be described because of the amount of the suppliers. Therefore, the most important partners should be defined as a part of the company's network strategy. Thirdly, companies use different audits in order to secure the quality of working procedures and products of their partners. As a part of their network strategy, a company should decide which suppliers should be audited and how. Fourthly, the use of authority is a mechanism meaning rewards and threats, which the actors of the leader company use to govern the suppliers. Typically the claims from which the threats follow relate to the target prices or the services the supplier provides.

**The Extreme and Intermediate Form of the Social**

The third mechanism is defined as a social one (Granovetter 1973; 1985; 1995). It is stated that the social mechanism may be the only mechanism found in the relationship. Researchers claim that in the extreme form, the social control leads to a system, where the social community subjugates the individual under the will of the community through norms the strategic network (community) sets to govern the behavior of its members.

TABLE 3. THE OBJECTS, MECHANISMS, AND ANTECEDENTS OF TRUST AND TOGETHERNESS (ADLER 2001, DEVELOPED FURTHER).

Dimensions	Components
Objects	<ul style="list-style-type: none"> <li>• Individual</li> <li>• Team</li> <li>• Organization</li> <li>• Strategic network</li> <li>• Institution</li> <li>• System</li> </ul>
Mechanisms	<ul style="list-style-type: none"> <li>• Propensity</li> <li>• Reputation</li> <li>• Calculativeness</li> <li>• Knowledge</li> <li>• Identification</li> </ul>
Forms	<ul style="list-style-type: none"> <li>• Predictability</li> <li>• Capability</li> <li>• Integrity</li> <li>• Benevolence</li> <li>• Honesty</li> <li>• Deterrence</li> <li>• Reciprocity</li> <li>• Shared purpose</li> <li>• Shared vision</li> <li>• Shared goals</li> <li>• Shared values</li> <li>• Shared rules</li> </ul>

The third dimension of the network strategy is a social one. The social governance is divided into two sub-

dimensions: 1) trust and 2) community. As the “forms” above suggest trust is divided here into seven sub-dimensions: a) predictability, b) capability, c) integrity, d) benevolence, e) honesty, f) deterrence, and g) reciprocity. Often trust is defined as a belief<sup>f</sup>, based on cognitive rationalization of feelings (Baier 1986; Kohtamäki 2003). Both, the trustor and the trustee are often defined as an individual, but as often as an organization (Cumming & Bromiley 1996). Researchers have defined five mechanisms of trust: 1) Propensity (individual’s propensity to trust) 2) Reputation (reputation and references) 3) Calculative (engaging relationship because of the possible benefits) 4) Knowledge (knowledge about trustee’s positive sides increases trust), and 5) Identification (identification to the same values increases trust) (Fig. 3).

The other sub-dimension of the social governance is the feeling of community. The feeling of community or, in other words, feeling of togetherness, is an important element of social governance. Sharing the same purpose, vision, goals, values, and rules may develop an atmosphere in which the feeling of community emerges (Ghoshal et al. 1996).

The social mechanism, as the third dimension of the network strategy concept is a difficult one, since trust, and the feeling of community as phenomena are to some degree vague in nature. However, the claim is that the social dimension, trust and community should be carefully and consciously developed. Of course, the question could be raised, how systematically these feeling –based phenomena can be developed.

The social relationship can be built through three different phases: a) calculative, b) knowledge –based, and c) identification –based phase (Lewicki et al. 1996) (Fig. 3).

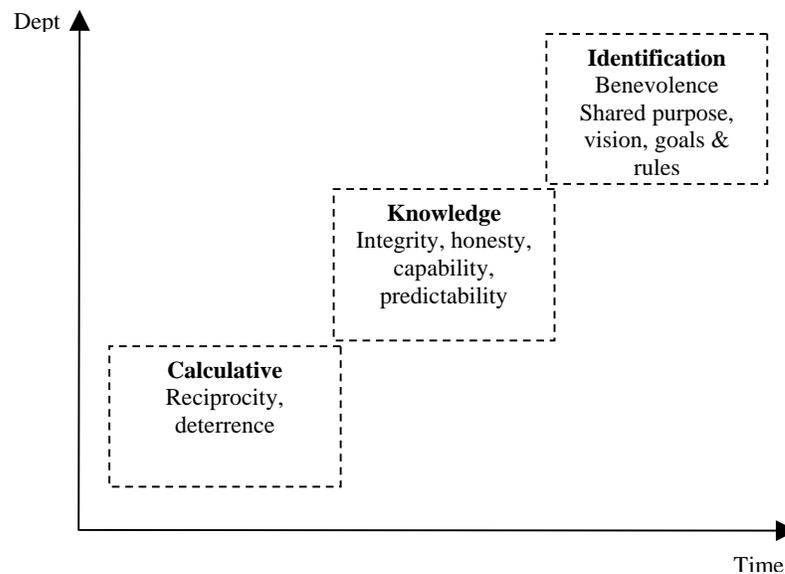


FIG. 3: BUILDING THE SOCIAL RELATIONSHIP (LEWICKI ET AL. 1996, DEVELOPED FURTHER)

In the calculative phase, the relationship can be developed through reciprocal exchanges. In order to gain the calculative trust, the partners have to experience the value of the relationship (What is in there for me?). In order to develop knowledge –based trust, different informal meetings have to be organized. Researchers claim that social relationships can be improved by unofficial, informal meetings and open communication. In an informal atmosphere, the actors gain positive knowledge about each other, this may increase trust, because trust is a knowledge –based phenomenon. The third and deepest level is based on the identification of the same vision, goals, values, and rules. Also the belief to the partner’s benevolent intentions and behavior is claimed to be important. This level of social relationship can be developed, but it often occurs through similarities. Some likeness between the partners should be recognized. Similarities, sharing, communicating about similar interests may “brake the ice”.

### **The Discourses between Mechanisms**

Three different discussions between the different mechanisms could be derived from the earlier literature (Fig. 1): Oversocialized vs. undersocialized, markets vs. hierarchies, informal vs. formal organization.

Oversocialized vs. undersocialized –discussion was raised by Granovetter in his classical article 1985, in which he criticized the notion of the undersocialized conception of man. Granovetter (1985) claimed that the conception, when analyzing (and developing) an organization, should neither be under- nor oversocialized. By undersocialized, it was meant that the economists tend to forget that the economic structures are embedded in the social world, in the individual relations. On the other hand the sociologists tend to forget the role of a man as a self-interest seeking and utility maximizing individual. Both of these conceptions should be equally considered. In the world of an entrepreneur, this would mean that an entrepreneur, even if striving for freedom, needs social community; strong ties to build his identity in interaction with his environment (Johannisson 1987; Berger & Luckman 1995).

The discussion of new institutional economics builds on the basis of the Ronald Coase's and Oliver Williamson's (1975; 1985) work with the transaction cost economics. Transaction cost economics (Transaction cost theory) focuses on the borders of a firm: on which basis are the borders of a firm defined in the markets? In the most operational sense, this question leads to decision whether to outsource or not (whether to make, cooperate or buy the components or services). This decision bases on different basic assumptions, environmental factors and especially the relation between the production- and transaction costs. The decision is made on the basis of the total costs. This means that when the transaction costs increase, there becomes the point in which it is more efficient to produce the good or service inside a hierarchy than in the markets or networks, as the hierarchy according to Williamson (1985) is the most adaptive form of governance.

The last discourse focuses on the discussion about formal vs. informal organization. This discussion focuses on the poles between authority and social governance. The community element relates to the idea of a clan (Ouchi 1980). Clan governs the behavior of its members through shared values and norms, as the hierarchy relies on legitimate authority executing rules and regulation of the hierarchy. As the organization has a certain official structure, line of authority, it also has an informal side. As the hierarchy emphasizes the formal procedures, the community raises up the informal dimension of a strategic network. Both of these sides of organization exist in the same organizations, so they also should be noted.

### **Developing a Concept of Network Strategy**

Three different governance mechanisms may be identified governing the economic systems. Some researchers have seen the mechanisms as distinct, but it has also been proposed that the different mechanisms can overlap to some degree in their intermediate forms. In their extreme forms the mechanisms close each other out, meaning that in the perfect markets, there exist neither community ties nor hierarchy. In the hierarchy there exist neither markets nor social relationships and in the community there exists neither competition nor authority. The different mechanisms have to be recognized when developing an organization or networks. On what basis do we build our network strategy?

In this research it was suggested that the network strategy of the leader company should be built on the basis of three different mechanisms of governance: Price, authority and the social mechanism. The idea of the pricing strategy includes the synthesis of a) market, b) cost and c) value –based pricing. As a part of the network strategy, the leader company should decide how pricing at different components is implemented.

Secondly, the network strategy of the leader company should include decisions concerning the use of authority. This decision includes every dimension of hierarchical organizing: a) contracts, b) logistic processes, c) target prices, d) quality systems, and e) information systems. Contracts include supply contracts, but they may also include quality contracts. With processes we mean the level of process description and development, which is required from the suppliers. Target prices refer to the price targets set by the leader company. Here it is argued that the target price setting done by the leader company is authoritarian rather than market –based. Lastly, the requirements concerning quality and information systems should be defined. Here it is argued that the authoritarian

rules and regulations should be defined as a part of the network strategy of the leader company.

Thirdly, in this research it was argued that the social mechanism should be used as systematically and consciously as the other dimensions of governance. It was argued that both a) trust and b) feeling of community may to some degree be consciously developed as a part of the network strategy.

The network strategy should include a decision how the leader company decides to govern the whole strategic network and the individual suppliers. The network strategy should be defined and implemented on the network level, but naturally it culminates in the dyadic relationship level. On the other hand, different components or component groups and their suppliers can be defined as an entity managed differently than other group of suppliers. In the end, the question is about the coordination of the social life. Whatever the governance structure should be, the developers should make conscious decisions of how to approach the governance problem (Powell 1990).

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### **End Notes**

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<sup>i</sup> Researchers divide trust to seven sub – beliefs: Predictability refers to the consistency of the attitudes and behavior of the partner. Capability means trusting the capability of the partner as benevolence refers to willingness to help. With integrity researchers’ mean the trustor’s belief that the partner will keep his word. Honesty means that the partners speak only what is the truth. Reciprocity belief builds on the basis of the social exchange literature meaning that the partners exchange but knowledge, also feelings. Deterrence –based trust means partner’s trust to deterrence created by the situation and the trustor. Reputation is one example of this kind of a hostage. (Kohtamäki 2003.)

# The Analysis of Network Structures as Social Capital

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## Abstract

Since prior works have tended to focus either on structural dimension or relational dimension of inter-organizational network, researchers have produced contradictory and confusing implications regarding network structures organizations should form. In this paper, my objective is to identify the configurations of network that the focal organization should form. Network of ongoing cooperative relationship organizations accumulate over time constitutes a resource of potential value, which is called social capital. By clarifying the influence of the interaction between structural dimension and relational dimension of network on the behavior of the focal organization, I argue that (i) weak ties in the densely-connected network and (ii) strong ties in the sparsely-connected network are positively related to the performance of the focal organization. Furthermore, the benefits inherent in the network can vary with the specific relations organizations form with each other in the organizational field.

## Introduction

During the last two decades, alliances have become one of the most important inter-organizational forms. Globalization destroys the previous structural and competitive equilibrium among organizations, which enhances the value of some existing capabilities and diminishes the value of others. Meanwhile, it creates the need for a new set of capabilities. While organizations adapt to these challenges through internal changes, they are constrained by their limited capabilities. Cooperative relationship between organizations was uncommon before 1980's, however, after that, strategic alliances have been increasingly formed among organizations, and recently such relationship has a tendency of internationalization. These alliances are organized through a variety of contractual arrangements, ranging from strategic alliance, franchise, outsourcing, joint venture to virtual organization (Gulati & Singh, 1998).

## Previous Review of Research on Network

Organizations enter corporate relations with each other for a variety of reasons, using diverse organizational forms and governance structures (Parkhe, 1993). In this view, organizations create network to manage uncertain environments to satisfy their resource needs and consequently, gain access to critical resources and information maintained by other organizations in the long run. On the other hand, the behavior and performance of organizations is influenced and guided by the network because network can regulate the quality and quantity of resources and information exchanged among members (Konno, 2002). That is, network has two aspects: one is called networking which means that organizations create corporate relations with others; the other is called networked which means that the behavior of organizations is facilitated or impeded by the relations formed in the network. Currently, however, recent network research has led to the important and unanimous insight that building cooperative relations with others is considered to be potentially a valuable resource and the pattern of network is also meaningful in terms of competitive advantage (Ahuja, 2000; Rowley, Behrens & Krackhardt, 2000; McEvily & Zaheer, 1999; Gargiulo & Benassi, 2000; Uzzi, 1996, 1997; Burt, 1992). The opinions on "what kind of network, that is, the configurations of the network the focal organization should construct is preferential" manifold a lot (Gulati, 1998; Gargiulo & Benassi, 2000; Rowley, Behrens & Krackhardt, 2000; Konno, 2002).

Gulati & Gargiulo (1998) illustrate that it is significant to clarify the mechanisms of how network facilitates or impedes the behavior of organizations for designing the effective and efficient network. Prior work, however, is generally divided into two dimensions: structural dimension and relational dimension. Structural dimension of network refers to the overall pattern connections between organizations, that is, whom you reach and how you reach

them (Burt, 1992). In contrast, relational dimension describes the kind of inter-organizational relationship organizations have developed with each other through interactions (Uzzi, 1996). However, the previous analysis of network has tended to focus on either structural dimension or relational dimension. Moreover, there have been few attempts at comparing or integrating these two dimensions (Rodan & Galunic, 2004). As a result, network researchers have produced contradictory and confusing implications regarding how organizations should form corporate network (Rowley, Behrens & Krackhardt, 2000; Konno, 2002).

#### **Structural Dimension of Network**

The most important facet of this dimension is concerned with the presence or absence of ties between organizations from network relations as a whole. Coleman (1988) argues that since members in the closed network are likely to be connected with each other, these densely-connected ties promote the production of social norms and sanctions that facilitate cooperative exchanges among member. In a densely-connected network, members can trust each other to honor obligations, which diminish the uncertainty of their exchanges and facilitate collective monitoring and sanctioning to produce effective incentives for cooperation (Walker, Kogut & Shan, 1997). On the other hand, Burt (1992) suggests that members in the sparsely-connected network will enjoy information and control benefits. Organizations rich in structural holes- the positions between other organizations which are not directly linked-benefit from the diversity of information and the brokerage opportunities by engendering competition for the tertius' time, energy and resources. In other words, such network benefits lie between not within members (Rodan & Galunic, 2004).

As mentioned above, Burt's (1992) and Coleman's (1988) versions of network structures provide different benefits, and they are also useful for different purposes. Dense networks are advantageous for developing trust and cooperation but redundant information from multiple sources is often exchanged. Nevertheless, sparse networks provide the focal organization with diversified information but the structures cannot generate governance mechanisms to impede opportunism. Thus, organizations face a trade-off between networks that guarantee the safety of cooperation and networks that provide benefits through cooperation. In such an environment, organizations have a natural tendency to seek the safety of densely-connected network to secure the cooperation with members, on the other hand, organizational success depends more than ever on the advantages to build an efficient cooperative network (Podolny & Baron, 1997; Gargiulo & Benassi, 2000). In this view, Gargiulo & Benassi (2000) suggested that an inter-organizational network structure that is uniformly neither dense nor sparse is advantageous (Fig.1). Organizations have to strike an optimal balance between safety and efficiency of cooperative relations which may also depend on the strategic objectives of entrepreneurs. In such a complicated network, the structure is uneven, composed of blocks that are more or less filled with cooperative relations (Walker, Kogut & Shan, 1997).

#### **Relational Dimension of Network**

This dimension of network focuses on the particular relations organizations have with each other. It is through ongoing exchange relationship that organizations fulfill such strategic motivations to enter network (Nahapiet & Ghoshal, 1998). For example, two suppliers may occupy equivalent positions in the network with the buyer, but if the buyer's personal and emotional commitments to the two suppliers differ, their cooperative relations are likely to differ in important respects. Among the key facets are trust and trustworthiness (Uzzi, 1996, 1997), norms and sanctions (Coleman, 1988; Ring & Van de Ven, 1994), obligations and expectations (Granvotter, 1973; Coleman, 1988; Burt, 1992; McEvily & Zaheer, 1999). Thus, it is significant to identify the strength of bridging ties between organizations. Granvotter (1973) defines the strength of interpersonal ties based on a combination of the amount of time, the emotional intensity, the intimacy and the reciprocal services which characterize the tie. For the purpose of examining inter-organizational networks, we can measure tie strength by the period and frequency of interactions between members. However, on the one hand, these two factors alone may not be a sufficient condition for discovering and exploiting opportunities (McEvily & Zaheer, 1999), and the other two factors—the emotional intensity and intimacy—are pertinent for the individual-level relationship (Rowley, Kogut & Krackhardt, 2000), tie strength between organizations should be measured by a combination of the period and frequency of interactions between members and their level of resource commitment to the relationships (DiMaggio & Powell, 1983; Konno, 2002).

In the network of strong ties, the frequent corporate relations over a long time enable members to become separate from the narrow economic goals that originally constitute the exchange. And organizational survival is

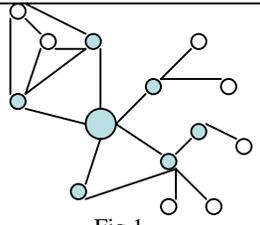
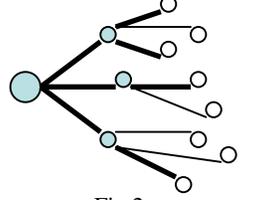
enhanced through resource sharing and commitment that is born from a concern for common benefits. Thus, strong ties are shown to provide members with three primary advantages (Uzzi, 1996). First, trust acts as the governance mechanism, which promotes voluntary, non-obligating exchanges of resources and governs behaviors, and consequently trust is beneficial for reducing monitoring cost. Second, the transfer of the fine-grained information and tacit knowledge through strong ties facilitates inter-organizational coordination and learning. Third, strong ties enable the members to jointly work through problems and quicken decision making, thereby they enrich the network with new solutions and combinations of ideas.

Conversely, weak ties in the network characterize the non-frequent and limited interaction, the lack of reciprocity, and narrow economic matters among members. These weak ties are beneficial, because they are often likely to be bridges to other distant organizations possessing new and different information and enable the discovery of unique opportunities. That is, new information is obtained through casual acquaintances. In support of this theory, Granovetter (1973) argues that a person's casual acquaintance, with whom only limited contact is maintained, is critical to discover new employment opportunities.

Therefore, weak ties benefits are different from the advantages gained through strong ties. However, either ties alone may not be a sufficient condition for organizations to enjoy the benefits from the connections among each other in the network. In a study of the New York apparel industry, Uzzi (1997) found that networks comprising merely weak ties or strong ties decrease organizational performance potential. He suggests that the best way for an organization to build its network is a mix of weak ties and strong ties (Fig.2). By means of strong ties, organizations can benefit from the exchange of thick information and weak ties prevent the complete insulation of the network and provide better access to novel information circulating in the network.

Overall, Table 1 summarizes the above-mentioned theoretical arguments on the configurations of network and the types of network structures the focal organization should build. The examination of those conditions under which dense/sparse network and strong/weak ties are positively related to organization performance suggests that each factor of them has different qualities, which is advantageous for different purposes. However, the performance of organizations is influenced not only by the properties of the relations maintained among members at a time, but also by the overall pattern of relations (Madhavan, Koka & Prescott, 1998). In this view, organizations can gain access to special opportunities from well-structured networks, but the bridging ties are dependent on how an organization exploits these opportunities to realize certain benefits (McEvelly & Zaheer, 1999). On the other hand, the benefits from bridging ties not only accrue to the individual organization of the network, but also to the network as a whole (Uzzi, 1996). Therefore, the influence of the interaction between structural dimension and relational dimension in the network on the performance of the focal organization should be clarified.

TABLE 1: PREVIOUS RESEARCH ON NETWORK STRUCTURES

Focus	Propositions	Merits	Representative authors	Network structures
Structural dimension	<ul style="list-style-type: none"> <li>Structural holes</li> <li>Sparsly connected</li> </ul>	<ul style="list-style-type: none"> <li>Information benefits</li> <li>Control benefits</li> </ul>	Burt(1992, 1997)) Coleman(1988) Gargiulo&Benassi(2000) Podolny & Baron(1997) Walker, Kogut & Shan (1999)	 <p>Fig.1</p>
	<ul style="list-style-type: none"> <li>Closure of network</li> <li>Densly connected</li> </ul>	<ul style="list-style-type: none"> <li>Social norms and sanctions</li> <li>Prevention of opportunism</li> </ul>		
Relational dimension	Strong ties	<ul style="list-style-type: none"> <li>Rich information</li> <li>Trust between individual organization</li> </ul>	Granovetter(1973,1985) Uzzi(1996,1997) Ahuja(2000) McEvelly&Zaheer(1999)	 <p>Fig.2</p>
	Weak ties	<ul style="list-style-type: none"> <li>Diverse information</li> <li>Low maintenance cost</li> </ul>		

## Theories on the Analysis of Network

I have respectively outlined the main effects of structural dimension and relational dimension of the network on organization behavior and performance. As Table 1 demonstrates, like strong ties, dense connections can serve as governance mechanisms in the network, and like weak ties, structural holes can provide diverse information that such a position is assumed to afford. That is, the impact of the characteristics of “structural holes and weak ties” and “dense connections and strong ties” in the network on organization performance has high possibility to serve the same. Nevertheless, as discussed above, structural dimension refers to the network as a whole, while the relational dimension stresses the individual relationship between members in the network. Therefore, when we attempt to identify the configuration of the network organizations should built with others, the influence of structural dimension on organizations in terms of the network as a whole, and the influence of relational dimension on organizations in terms of the individual relationship, must be distinguished. This is to say that the two dimensions should not be considered individually. Indeed, the impact of the interaction between these two dimensions in the network on organization performance should be considered simultaneously.

### **Structural Hole and Weak Ties**

As discussed above, weak ties enable the organizations to gain access to new and diverse information. That is because the time and energy of organizations to build cooperative relations with others is limited (Burt, 1992), organizations might be better off establishing weak ties to many more organizations, rather than investing time and energy to form and maintain strong ties (Rowley, Kogut & Krackhardt, 2000; Konno, 2002). Furthermore, since strongly connected organizations are likely to interact frequently, much of the information circulating in the network is redundant (McEvilly & Zaheer, 1999).

However, Burt (1992) extends the strength of weak ties argument by asserting that it is not so much the strength of tie that determines its information potential, but rather the existence of structural holes between the focal organization and other organizations. Structural holes refer to the occasion where there is no connection between organizations in the network. In sparse network, being in a position that connects two other organizations which are not otherwise connected, the focal organization is associated with the different subgroups which are cut off. As a result, organizations can enjoy the benefits of novel and diverse information from different information flows and the advantages of brokering opportunities because they themselves serve as bridges spanning the structural holes.

Therefore, network rich in structural holes may provide organizations with timely information about new opportunities, but establishing and maintaining weak ties with many more organizations, can also prevent from receiving redundant information.

### **Dense Connections and Strong Ties**

Dense connections among each other in the network convey a clear normative order within which individual organization can optimize its performance. And this socially defined right to control an action, is held not by one organization but by all partners. That is, it represents a degree of consensus in the whole system which is effective, though sometimes fragile (Coleman, 1988). In dense network, network structure itself facilitates collective monitoring and sanctioning to guide actions and produces incentives for cooperation. Thus, members may share a vision or value at the network level and must deal with norms which are capable of punishing disobedience even if they do not have specific inter-organizational relationship (Tsai & Ghoshal, 1998).

Correspondently, on the occasion of strong ties established between organizations, trust develops when frequent exchange relationship is established and extra effort is given and reciprocated. Inter-organizational trust promotes commitment to exceed the contract, and organizations contribute more to the relations than is specified. Consequently, trust in another organization’s goodwill –willingness to consider each other’s interests–impedes the opportunism. However, closeness of individual organization’s relations is not enough to produce behavioral norms at the system level because the closure of the network is important for the existence of effective norms (Coleman, 1988). For instance, the focal organization A keeps cooperative relationship with organization B and C. Since B and C have no relations with each other, they can not combine forces to restrict the behavior of A, A can impose negative items on B or C or both. That is to say that no matter what kind of relationship exists with each other, the lack of closure of network makes it impossible for the norms to be produced.

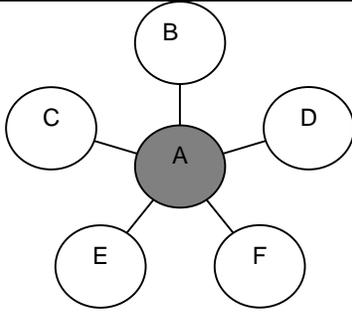
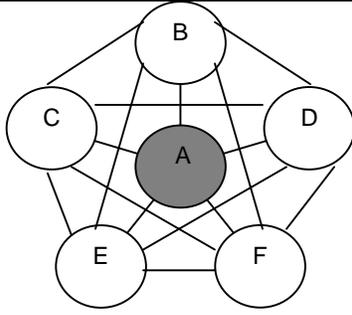
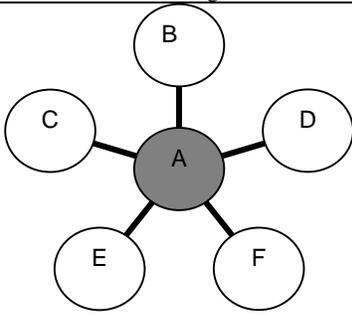
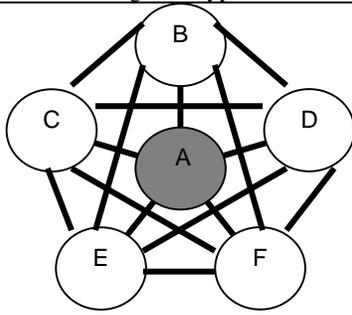
Therefore, while dense connections make norm creation at the network level possible, that is the

trustworthiness of the social environment in which obligations will be repaid, strong ties can also produce goodwill between partners and impede opportunism at the dyadic level, that is the actual extent of obligations held. In this view, interconnectedness and strong ties create trust at different aspects of the network, but both can serve as governance mechanisms (Rowley, Kogut & Krackhardt, 2000).

Overall, I argue that “structural holes and weak ties” and “dense connection and strong ties” are likely to provide organizations with the same benefits. Structural dimension refers to the setting of network for organizations to employ the strategy. It has its primary impact on the conditions of accessibility; however, how to exploit these opportunities is also an essential component of the strategy (Rodan & Galunic, 2004; Nahapiet & Ghoshal, 1998). For example, structural holes provide organizations with novel information and opportunities for brokerage, but we can expect the advantages of structural holes to be diminished if weak ties are not enough to act as governance mechanisms to monitor the behavior of each other and restrict the opportunism. Strong ties in dense network are possible to amplify the pressure to promote the ongoing commitments, and even generate a lock-in that isolates them from the outer world, keeping organizations tied to the partners that have lost their value.

Thus, when the focal organization establishes a dense network, will it gain any extra benefits from strong ties with his partners? Or when weak ties with his partners can convey diverse information, are there still advantages to the focal organization by maximizing structural holes? This suggests the importance of examining how network structures and network contents interact in shaping the network. When the focal organization attempts to form the network, it is significant and necessary to consider structural dimension and relational dimension simultaneously: whether the focal organization should form the network through strong or weak ties depends on the pattern of network structures. In view of this, four possible types of network can be identified. When members are sparsely connected, as Fig. 3 and Fig. 4 in Table 2 demonstrate, the focal organization can establish strong ties or weak ties with other organizations. Correspondently, when members are densely connected, as Fig. 5 and Fig. 6 in Table 2 illustrate, organizations may be connected with each other with either strong or weak ties.

TABLE 2: FOUR POSSIBLE NETWORK STRUCTURES

Structural dimension	Sparsely connected	Densely connected
Relational dimension		
Weak ties	 <p>Fig. 3</p>	 <p>Fig. 6 Hypothesis 2</p>
Strong ties	 <p>Fig. 4 Hypothesis 1</p>	 <p>Fig. 5</p>

## Hypotheses

### Social Capital

Network is one of the forms of inter-organizational cooperation that involves significant exchanges, sharing, or co-development and thus results in some forms of enduring commitments between members (Gulati & Gargiulo, 1999; Parkhe, 1993). Network of ongoing relationship organizations accumulate over time constitutes a resource of potential value. Thus, like capital of any kind, social capital is defined as the sum of resources that accrue to an organization by virtue of possessing a durable network of inter-organizational relationship (Koka & Prescott, 2002; Nahapiet & Ghoshal, 1998; Burt, 1992). Although interdependence is the most common explanation for the formation of inter-organizational cooperation (Pfeffer & Salancik, 1978), entering the network to cope with an uncertain environment faces other uncertainty resulting from cooperation (Gulati & Gargiulo, 1999). However, it is insufficient not to explain that networks of relations that emerge over time as a result of alliances shape and constrain the strategic actions of organizations involved in them.

In this view, one of the functions that network serves is to provide members with capabilities and resources that are essential to pursue their goals but that are under the control of other organizations in the network. The other is to act as a governance mechanism and a means of enforcing norms of behavior in terms of governing the behavior and cooperation of members in the network. Therefore, network serves as an important function in the developments of interorganizational cooperation. For the purpose of designing the effective and efficient network, it is significant for the focal organization to consider the safety of cooperation and the efficiency of cooperation simultaneously.

### Network Structures that are Social Capital

As Table 2 illustrates, we can consider two extreme examples of network structures. At one extreme is an open network in which organizations are not connected with each other extensively. That is, in a network containing many structural holes, it is easier for the focal organization to assimilate diverse resources and information, and exploit the opportunities to play other organizations off against one another. For example, the organization, which buys the same products from the two other organizations, can carry out actions that impose negative externalities on either or both if they have no relations with each other. That is because their disconnected and competitive relationship among the sellers makes it impossible for them to combine forces to cooperate in order to constrain the actions of the buyer. As a result, structural holes in the open network define the social capital in terms of the information and control advantages of being the broker in relations between other organizations (Burt, 1997). However, on the other hand, although the pursuit of individual goals requires the active cooperation of other organizations, uncertainty about whether such cooperation is forthcoming will greatly impede the willingness of inter-organizational cooperation. It is no doubt that a diverse, disconnected network exposes the focal organization to conflicting preferences and allegiances within which it is much harder to optimize (Podolny & Baron, 1997). Thus, in the open network, efficiency mixes poorly with the safety of cooperation.

At the other extreme is a closed network in which organizations are connected with each other densely. Since all organizations in the network have relationship with each other, information flows would lead quickly to established norms of cooperation. When a norm exists and is effective, it constitutes a powerful form of social capital which depends on the trustworthiness of the environment which means that obligations will be repaid (Coleman, 1988). If the opportunism happens, information on deviant behavior would be readily disseminated and the behavior sanctioned (Walker, Kogut & Shan, 1997). Consequently, opportunistic behavior is less likely to arise because the threat of reputation loss with respect to multiple partners will discourage organizations from opportunistically. Furthermore, dense connections in the closed network allow organizations to gain prestige, enhance their status and amass resources. However, organizations may lack the opportunities to enjoy the advantages of brokering and exploiting opportunities. Thus in the closed network, the safety of cooperation mixes poorly with the efficiency of the network.

## **Optimal Network Structures**

In an effort to establish the effective and efficient network, as mentioned above, the safety of cooperation and the efficiency of cooperation should be considered simultaneously. However, either in the open network or in the closed network, the two factors mix poorly with each other. Therefore, the following will examine conditions under which how strong/weak ties in sparse/dense network are related to organization performance.

In the open network containing many structural holes among other organizations except the focal organization, since the closeness of inter-organizational interactions is not enough to produce effective behavioral norms at the system level to guarantee the safety of cooperation, the content of individual organizations' relations, that is, the strength of ties established between organizations, will alternatively play an important role. Inter-organizational trust can develop when frequent exchange relationship is established and extra effort is given and reciprocated. As a result, commitments to corporate relations are promoted and organizations are willing to contribute more to the relations than is specified by the contract. Thus, trust in another organization's goodwill-willingness to consider each other's interests-impedes the opportunism and the safety of cooperation can be achieved in the network sparsely connected with strong ties.

For instance, Toshiba had been immersed in a lower profitability compared with his rival Hitachi since 1970s. In order to get out of such unfavorable business conditions, Toshiba set up the strategy called group-intensification and took corresponding measures to cope with the changing environment. On the one hand, since all of the suppliers and manufacturers of accessory parts were not closely connected with each other, to some extent their actions were not constrained by the interactions and adaptation became much easier when relations were tuned to specific conditions. At least considered from the Toshiba side, there did exist many structural holes among the suppliers. Therefore, Toshiba, as the broker of such unconnected relations, could gain access to diverse and novel information from these unconnected relations and enjoy control advantages by playing off one against another if

Toshiba could keep cooperative relations with each favorable partner. On the other hand, Toshiba renewed the ranking of 800 enterprises or so with which they had kept close relations in the past. Toshiba paid much more attention to the “competitiveness” of the parts supplied, such as the price and quality of the parts transacted, and to the “importance” to his interests. Consequently those enterprises with less importance were rejected, and Toshiba continued to contribute much effort to keep much longer and closer corporative relations with those enterprises, which were regarded important in the long run. Indeed Toshiba invested a lot of special relational resources and so much as offer technique directions to accessory suppliers (Onishi, 1991). As proved later, the profitability of Toshiba has been keeping rising up and this group-intensifying strategy established good foundations for the global strategy after that.

In the densely connected network, the focal organization is not only connected with all the other organizations, the other organizations are also connected with each other. Such intricate inter-organizational relations facilitate the emergence of effective norms to guide the corporative behavior; they can also bind member organizations into network and consequently diminish their autonomy to gain their deserved benefits from the network. Therefore, for the purpose of exploiting extra opportunities and benefits inherent in the network, weak ties are positively related to organization performance. Firstly, that is because weak ties are conduits for novel information. Weak ties are more likely than strong ties to be bridges to partners possessing unique information since it is much more costly to maintain a network connected with strong ties. That is, if the relational investment is fixed, organization can establish many more relations with other organizations through weak ties than strong ties. Secondly, opportunity cost is decreasing. The benefits of increasing social constraints from establishing strong relations in the closed network are offset by a reduction in independence (Walker, Kogut & Shan, 1997). That is because in the close network, the focal organization’s behavior is constrained not only by the connections between the focal organization and its partners, but also by the connections among its partners. Given a limited amount of time and energy, an obligation to maintain relations that are no longer advantageous may lock the focal organization into endless mutual exchanges and hinder its ability to cultivate new cooperative relations.

For example, in the semiconductor industry, quite a lot joint-venture enterprises and strategic alliances are formed responding to the rapid changes of the technical characteristics of the industry and drastic international competitions. That is, one firm keeps cooperative relations with not one exclusive partner but many other various partners; as a result all of these cooperative relations constitute “a densely-connected network” of the organization (Management 21, 1992). As one of the members of Japanese semiconductor industry, Toshiba is coincidentally put in the semiconductor industry, and has established cooperative relations with many giant Corporations, such as Motorola, IBM, Siemens, National Semi-conduct etc since the middle of 1980’s. However, regardless to say, the strength of these cooperative ties is weak, and the cooperation area and intensity is limited. For instance, the collective development of the 256M DRAM with IBM was limited to the field of research and development. Either Toshiba or IBM could start productions by utilizing the fruits of collective research developments, and could decide the proceeding of production depending on his own judgment. Furthermore, in the densely connected network, although strong ties may temporarily be established between individual organizations, they become weaker and weaker along with the time. For instance, the cooperative relations between Toshiba and IBM expanded from the preliminary technique co-development to collective productions and sales at a time, however, several years later the jointly-established Northeast Manufacture Plant ended with selling-out shares totally to one side, and from then on can take free actions without being constrained by the cooperative relation between both sides (Matsuyuki, 2002). Thus, since competitors are connected with each other in the industry, weak ties enable Toshiba to gain special benefits from the network, such as diverse information and necessary resources, without diminishing his autonomy. Hence, I offer the following hypotheses:

Hypothesis 1: In sparsely-connected network, strong ties are positively related to the performance of the focal organization.

Hypothesis 2: In densely-connected network, weak ties are positively related to the performance of the focal organization.

## **Discussion & Implications**

### **Definition of Organizational Field**

No organization is completely self-contained because they are not in complete control of all the resources necessary for their survival (Pfeffer & Salancik, 1978). Therefore, network analysts routinely operationalize environments as flows of multiple resources (Freeman & Barley, 1990). Organizations may turn to some organizations for financing, to others for personnel, and to still others for necessary information and important raw resources and political support. When analyzed simultaneously across numerous organizations, since these multiple relations themselves define a complex system, the application of arguments occurs most appropriately and powerfully neither at the level of the entire society nor at the level of the individual organization but at the level of the organizational field (Scott & Meryer, 1994; Freeman & Barley, 1990; DiMaggio & Powell, 1983).

DiMaggio & Powell (1983) define the concept of organizational field as referring to “those organizations that, in the aggregate, constitute a recognized area of institutional life: key regulator agencies, and other organizations that produce similar services or products”. Organizational field has emerged as a critical unit bridging the organizational and societal levels in the study of social and community change (Scott & Meryer, 1994). This unit of analysis directs our attention not simply to networks of input-output organizations as does the organizational set (Kishida, 1985), but to networks of competing organizations, that is to the totality of relevant organizations that actually interact. As such, the notion of organizational field moves environmental and strategic theories beyond the level of the individual organization to the studies of relationship among organizations that term of a unique pattern of relations. To date, however, few network theorists have attempted to study the structures of networks in the organizational field (Freeman & Barley, 1990).

### **Appropriate Structure Patterns of Networks in Organizational Field**

The structure of an organizational field can not be determined a priori because it is likely to contain a variety of organizational forms defined by different patterns of resource exchanges that represent different organizational strategies. Organizations making rational decisions construct around themselves an environment that facilitates their ability. Therefore, the inter-organizational networks in the organizational field can be grouped into two broad streams by the relations organizations form with each other (Gulati, Nohria & Zaheer, 2000). One is the vertical network the focal organization forms with its input-output organizations. The other is the horizontal network the focal organization forms with its competing organizations.

In the vertical network, organizations engage in a range of activities, which are embedded in a complex chain of input-output relations. The focal organization relies on the resources supplied by the input organizations to manufacture its products, and meanwhile keeps good relations with the output organizations to assure the market of its products. That is, organizations depend on each other for the resources demanded and controlled by the other organizations. The higher the level of interdependence among organizations, the greater the information they must obtain from others and the greater the need for ongoing task coordination and joint decision-making between partners. Consequently, the great confidence in the predictability of each other’s corporative actions is required and the production of inter-organizational trust which obliges organizations to behave loyally, can guarantee the safety of cooperation by making it easier to access each other’s behavior and to enforce sanctions of opportunistic behavior. On the other hand, indeed inter-organizational relations in the vertical network are established when the resource exchange or sharing is involved. Thus, in an effort to gain access to resources at favorable terms, pure exchange relations are likely to be transformed into power relations. A dominant organization can insist on exclusive access to the capabilities it desires and can opportunistically favor the relations from which it most stands to benefit.

Based on these considerations, organizations forge linkages to gain access to those important resources, which they perceive will lead to an improved competitive position, and at the same time these linkages should mitigate competitive uncertainty and guarantee the safety of cooperation. The result of the dynamics of the cooperative relations in the vertical network will be a network with the following two features. Firstly, structural holes among other organizations enable the focal organization to obtain diverse information with regard to the

necessary resources and exploit the opportunities to play off one against another. Secondly, strong ties established between individual organizations can impede opportunistic behavior to guarantee the continuity of the resource exchanges.

Another stream to think about networks in the organizational field is to recognize the organizations competing in the similar niches. Because the cannibalism competition is deleterious to the economic interests of competing organizations, the benefits inherent in the network are likely to be greatest when they establish collusive channels between directly competing organizations both for diverse, novel information exchanges and cost sharing purposes. That is, effort is likely to be continuously duplicated within them if organizations independently invest in the development of related technologies. Therefore, to avoid this redundancy, network represents a means for organizations in the same field to eliminate duplicative efforts by pooling capital and technical resources. In these circumstances, networks may benefit organizations because of complementarities in the knowledge assets and the mutually absorptive capacity—the ability of organizations to assimilate new ideas and inventions from external sources (Stuart, 1998). However, these organizations ultimately have to compete for the same market by creating value-generating resources, which are difficult for competitors to imitate or substitute. It means that there may be diminishing benefits with the increasing closeness of mutual cooperation within a fixed time interval. Because information and technical knowledge must be exchanged in networks, organizations cannot choose to cooperate with a partner that is tightly tied to other organizations that they wish to keep at a reasonable distance. This constraint stems from managing both the potential for the conflicts of interest multiplies and the diminishing autonomy.

Therefore, it can be generally assumed that weak ties are positively related to the performance of the focal organization when inter-organizational cooperation is becoming common and significant among competing organizations, because in an environment in which social norms exist and obligations will be repaid, weak ties provide better access to information benefits and prevent organizations from being exploited by partners without diminishing autonomy.

## **Conclusion**

The importance of network formation with regard to inter-organizational cooperation has important consequences for organization theory. The arguments of this paper draw attention to three aspects that need to be considered in term of establishing an efficient and effective network for the focal organization.

First, this study highlights that within a network, structural dimension and relational dimension differ significantly in the mechanisms of benefits that they provide to the focal organization, although similar benefits are likely to be brought. By clarifying both dimensions, I argue that, under these circumstances, it is important to examine how network structures and network contents interact in shaping the network and they should be considered simultaneously.

Second, this study identifies the configuration of networks the focal organization should build. Either in the open network or in the closed network, the effectiveness and efficiency of network mixes poorly with each other. By clarifying that the benefits of network structures are contingent on the contents of ties, I argue that weak ties in the densely-connected network and strong ties in the sparsely-connected network are positively related to the performance of the focal organization.

A third aspect, closely related to the previous one, is that concerns about the benefits inherent in the network can vary with the specific relations organizations form with each other in the organizational field. In the vertical network of input-output organizations, the focal organization should keep strong ties with other organizations rich in structural holes to exploit the opportunities provided by network structures while the horizontal network comprising of competing organizations should be densely connected with each other with weak ties since social norms can facilitate trust and cooperative behavior.

In developing my idea, I have noted several limitations in this study. Although in this paper, I suppose that network structure is viewed as the relatively enduring pattern of relations, it does not mean that it cannot change upon the emergence of the key industry changes (Madhavan, Koka, & Prescott, 1998). That is to say that changes that can bring the horizontal transition of network structures in Table 2, should also be considered in the future

research. Second, little attention has been paid to how cooperative relations are associated with the industry context in terms of different demands from the internal composition of industry. Finally, and the most significant is that these theoretical hypotheses need to be evidenced and proved by the empirical studies.

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### **End Notes**

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## **E-Government: Inside of the Public Agencies in Malaysia**

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### **Abstract**

The ICT revolution is causing sweeping changes in the way the government conducts its affairs with the people and business. The E-government is prophesied to alter the character of governments – become more responsive, more engaging and more democratic. Many studies have surveyed the public side of E-government changes and the reports are generally positive. Few studies have examined the intra-organisational changes that are taking place in parallel with the needs of a more ICT driven government. This study examines the internal changes within 91 public agencies in Malaysia. The findings paint a picture of weak leadership, inadequate resource availability, dependence on vendors, strong role of central direction and leadership and overall planning to progress the E-government platform from the billboard or publish stage to more interactive stage. There is generally low level of readiness to make move e-government beyond the rhetoric of radical change.

### **Introduction**

The Internet has opened new possibilities for the government and the governed, just as it has for the businesses and its customers (Moon, 2002; Shedler & Summermatter, 2003; Curtin, Sommer & Vis-Sommer, 2003). Over the past decade many governments have planned and implemented programmes intended to launch the government into the digital realm (Curtin et al., 2003; UNPAN, 2004). The highly complex bureaucracies that grew to regulate the economy and society through the highly differentiated but usually lowly integrated machinery can eventually be reconstructed through information and communication technology (ICT). Governments of both developed and developing countries have embraced ICT to improve the quality of public service, increase public access to information and to energise more participation in civic affairs (Becker, 1998; Moon, 2000; Schedler, 2001). According to a United Nations study, 89% of its 190 member states used the Internet in some capacity to deliver information and services (United Nations Division for Public Economics and Public Administration, 2002). Despite the impressive growth of e-government particularly through the Internet in making information and services available to the people, the intra-governmental changes have been slow, adhoc and plagued by poor planning, management and leadership (Ho, 2002; Moon, 2002). Many researchers have opined that the easier first stage is over and the next stage in the e-government evolution will require fundamental changes in mindset, approach and even laws to make progress (Layne & Lee, 2001; Vivienne, 2000; Vintar, Kunstedj, Deeman & Bersic, 2003; Yong, 2003; Vriens & Achterberg, 2004; West, 2004). The online transaction stage require governmental organisations to massively digitize and integrate their back-end operations, develop new skills and resources, and bring down digital and legal barriers to enable seamless integration of services across government agencies and to cultivate greater trust in the public (Holmes, 2001; Reddick, 2004). The “transact” stage is not expected to proceed as smoothly or as rapidly as the first, given the tricky and risky nature of changes needed (Vintar et al., 2003). This study is intended to examine the internal readiness of Malaysian governmental organisations whose websites were examined as part of a larger study on e-government. The internal structural, human and managerial readiness is posited as the main impetus or barrier to further development of e-government in Malaysia.

## Review of Literature

The Internet is changing the way business is transacted globally, and is now changing the way governments interact with citizens and businesses although in ways much less ambitious than initially proclaimed (Cortada, 2002: 340; Drucker, 2002). West (2004) cautioned that the euphoric proclamations of virtual state and new governance were overstated. Although changes via e-government have improved public services, the socio-political factors continue to hinder large scale changes that transformations entail. Although governments were the first to adopt and use ICT, it was mainly deployed in the backroom operations of the government and government-to-government (G2G). The use of ICT in delivery of services is new to government (Shutter & de Graffenreid, 2000) and therefore the subject of ICT including Internet, has been examined from many perspectives namely, legal and constitutional (Kraemer, 1988), leadership and management (Vriens & Achterbergh, 2004), fiscal scarcity (Beckett-Camarata & Moon, 2004), citizen involvement (West, 2004), service delivery (Corrigan & Joyce, 2000) and external environment and change (Scavo & Shi, 2000). The popularity of Internet, the expansion of e-commerce and the use of Internet by governments to deliver services to the people have attracted quite a lot of attention. However, many basic and structural obstacles must be resolved before the full potential of the technology can be realized. Political, cultural, human and resources constraints are obstacles that allow incremental changes within the limits of the society and politics (West, 2004)

Mover (2001) surveyed the extent to which the British local authorities have utilized the Internet to reach and serve the people. He observed that the national plans and objectives set to deliver all service online by 2008 is a great push for the authorities to transform themselves. However, most authorities are in the early stages of the Internet use trajectory. He submitted that most authorities were at the 'publish stage' had along way to go before integrating their supply chain, transforming business and empowering the citizens. The last stage is admittedly most difficult as it involves substantial attitudinal change. He advised that more attention be given to the selection of technology, the general backroom capability, incentives for citizens to use the new channels and security of private data. Across the Atlantic, Norris, Fletcher & Holden (2001) surveyed e-government in city and county governments in USA. The provision of e-government services required, they observed, some reengineering of the service processes to accommodate the new interface. The employees also felt greater burden as more staff resources were devoted to e-government development. The local authorities also experienced a significant increase in demand for the services as it had become more accessible and hence stimulated more demand. An interesting finding of this survey was that not all employees had Internet access even though the authority maintained a homepage and provided information and services via the Net. This survey also indicated that few authorities had an e-government strategy or plan in place. More than half of the respondents were considering a plan in the near term. There is also a growing interest in outsourcing the web-related functions to obtain better technical support since the internal resources are limited. Ho's (2002) study of municipal government supported the assertion that public agencies are moving away from a bureaucratic model to a user-centred paradigm. He also noted that this transition was hindered by staff and financial shortages, unequal digital access and the lack of broader vision of e-government.

Scavo & Shi (2000) looked at the general state of ICT use in American government. It is their contention that the hype and excitement of ICT is overstated. The reality is much less promising and full of problems. Much of the acquisition and use cost are not fully understood and provided for. They warned that ICT might not serve the twin goals of democracy and efficiency without conflicts. Many of the ICT utilization programmes are aimed at reducing cost than increasing comfort and to make the service available to all those who need them. Again, they raised security as a major concern as government data are among the most private and confidential. Shutter & Graffenreid's (2000) nationwide survey of businesses and citizen on e-government produced several interesting and conflicting findings. The citizens who had e-commerce experience expected their governments to go the same route. Having tasted the ease and convenience of online services in the new economy, they are expecting their governments to adopt the same e-business models. The citizens who have e-commerce experience appear to be more convinced of the benefits of e-government than those who have not. Businesses make extensive use of online services and expect more to be available. They do not see why the government cannot adopt the same technology as the businesses in serving their customers. However, one big concern is the trust in the government to preserve

privacy and confidentiality of personal data. Both citizens and businesses have the same concern over security. To promote e-government, the government must adopt or evolve systems that will create greater confidence in government in the handling of private information.

Hale et al. (1999) surveyed websites of Californian municipalities to examine the impact of these sites on three issues namely, the provision of information about municipal services, the linking up with other local associations and groups to build cyber-communities and bringing the citizens closer to the government. In 1996, 118 of the 460 cities had websites and the number increased rapidly to 290 in 1997. Sixty-one cities had two or more sites. Hale et al. (1999) found that there were wide variations in website quality. The smaller cities had nothing more than electronically presented typed documents. Most sites provided basic information about the municipality. Less than 50% of these sites maintained links with other associations. The horizontal communications impact of the websites was limited. Again in terms of vertical communications (G2C), close to 50% did not have such a facility. In short, Hale et al. (1999) found the results of their website review to be generally discouraging. Internet helped lower the 'costs' political participation but mere presentation of information, according to Hale et al. (1999) will truly stir the democratic urge to participate in debating issues.

West (2000) analysed 1,813 websites of US federal and state agencies. He found that these websites have performed badly. Their email response was good but most websites fared badly when it came to interactivity, provision of online services, security and privacy and many other website attributes. Comparatively, the Federal agencies performed better than their state counterparts. He also found that the multimedia capability of the Internet has been poorly tapped for public service provision. OMB (2000) formulated a centric and performance biased definition of e-government to underscore the main objective of leveraging ICT for the business of government. The report identified 4 citizen groups that the e-government initiative must seek to serve; individual/ citizens – Government to Citizen (G2C); businesses: Government to Businesses (G2B); intergovernmental – Government to Government (G2G) and intra-governmental (G2A). This strategic articulation of the deploying of ICT or technology resources in government outlines the boundaries of potentialities. Though G2C has received much public attention and notice, the backroom of the government is also experiencing equally frenetic changes in communication of information between and among governments and agencies. OMB (2000) bemoaned that the huge investments in information technology has not produced the level of productivity gains that were expected and possible. The sub-optimal returns were attributed to the areas which have attracted the initial burst of ICT investments. The investments were targeted at agencies processes and needs rather than meeting citizen needs. The technology was used to automate existing processes rather than to create more efficient and effective solutions that were now possible because of commercial E-business lessons learnt. The technology investment has proceeded without much collaboration on the basic technological protocols. This consequently has created islands of ICT that has crated problems of interagency connectivity and interoperability. As a result, citizens and businesses have to interact with multiple agencies to get services because the information supplied cannot be shared. Finally, the budgetary processes and agency culture has divisions that do not find it easy to cooperate across units and divisions even though the gains are enormous.

A United Nations Division for Public Administration's (UNPAN) study of 190 web sites placed Malaysia's info-structure as above average but classified the local e-government as barely above 'interactive level' with "citizen-centric components ... only minimally present" (Reported in Raslan, 2002). Taylor Nelson Sofres(2002) - a market information services provider, found that 23% of Malaysians surveyed were ready to release credit card and bank accounts numbers online to their government which compared favorably with the other countries (Denmark: 40%, Singapore: 39%, Norway and Sweden: 32%). However, only 12% of those who trusted online services had actually used e-government services. Whether these subjects had provided the personal data over the net in course of obtaining the e-government services is not established. This paradox of high trust and low use point towards between the potential and actual. Inexperience in e-government may explain the readiness to provide personal data over the net.

There is a sort of digital divide among government agencies (Ooi, 2001). The resource rich agencies like Subang Jaya Municipality and Malaysian Tourism Board are able to outsource their web design and management. Most agencies have no overall Internet strategy, which is likely to result in wastage, lack of synergy, and unfocussed development of the set based services. Most agencies still had static content that were not regularly updated and

some were regularly not accessible. The design of these websites is still very amateurish and does show that usability has been a primary consideration. Without regular surveys of citizen perception of the website quality, agencies can go on without identifying the basic problems. Research shows that 40% of users who had negative experiences are unlikely to return to the site again (reported in Ooi, 2001). Hazman, Jalil, Maniam & Naqiyuddin (2004) carried out a survey of 168 websites of Malaysian public agencies in terms of their citizen-centricity, data currency, responsiveness, participation and online service. Most agencies were mostly using the website to broadcast or publish information and data. The web design structure mirrored the agency structure. There was very poor response to inquiries from the researchers.

An Accenture annual e-government report found that of the 126 services that could be delivered online, 64 were available to some degree indicating a service delivery breadth of 50.79% (Vivienne, 2000). Of the 64, only 5 services could be classified as transactional and interactive while the rest were classified as 'publish' (reported in Izwan, 2001). The same report indicated that Malaysian E-government services exhibited low service delivery maturity i.e. low integration of services across agencies, lack of single point of entry and low use of customer management techniques. The e-government development best described as 'platform builders' characterised by high level publication of information online with gradual but low level of depth in the service category. Human resources, justice and public safety, education, regulation democracy, transportation and postal were sectors that had low overall service maturity.

## **E-Government Readiness – A Conceptual Framework**

The relevant government's vision and strategies are important to chart the path of e-government given the resources, people's capacity to interact via ICT, the attitudes and political priorities. This statement of policy and direction must cascade down to all levels of the administrative machinery to develop adequate change momentum. The readiness of the agency level will to a large extent determine how fast these visions and plans can become reality for the people. Based on extant literature in e-government and change management a number of key variables are posited as playing a key role in readiness of the public agencies to progressively develop the e-service component of the total service delivery. The variable planning examines the commitment of the agencies reflected in the existence of plans and policies or intention to have policies and plans in the near future (Moon, 2002; Vriens & Achterbergh, 2004). These policies include Internet use policy, email policy and plans on e-government. The policy and planning dimensions indicate preparation for e-government beyond the usual rhetorical commitments expressed in reports and press releases (Schedker & Summermatter, 2003).

The resource variables examine the availability of human, technical and financial resources to support the e-government plans. Foremost of the human resources requirements is the presence of technical personnel who is charged with e-government responsibilities (Ho, 2002; Vriens & Achterbergh, 2004). The status and stature of this person is important indicator of the importance and influence ICT has in strategic matters (West, 2004). The influence of the unit under which ICT matters are placed is also an indicator of the view of ICT in the affairs of the organisation. The allocations for e-government expenditure are also captured to reflect on the budgetary priorities – which are more accurate indicators of the importance of e-government. The extent of use ICT vendors for e-government related expertise shows the ability to leverage on outside resources or the and also lack of sufficient technical know-how in-house.

The e-service variable relates to the range of agency services that are provided online or for which there are plans in the near future (Vivienne, 2000). The first phase of e-government has taken off quite aggressively. Important as this stage is, the pace of development of the following stages will determine if e-government will actually harness the full potential of ICT or merely engage in limited and sometimes symbolic e-government (Moon, 2002; West, 2004). The later stages require better planning, stronger leadership and user mindset. The internal work routines and processes must be linked and secure features built-in (Vintar et al., 2003).

The perceived benefits of e-government are a powerful motivator of adoption and change (Moon, 2002). Although a national e-government vision is convinced of the potential benefits of ICT deployment, this belief must cascade down and be shared by the agencies in terms of their more local and empirical experiences. The role of

positive affect on adoption of technological change has been widely theorized and tested (Hazman & Munirah, 2004). This variable examines the aspects of the benefits of e-government.

## Research Method

The study is a cross-sectional sample survey of 165 public agencies of the federal, state and local governments whose websites were evaluated in a different but related study. It is intended to examine structural and managerial state of development of the digital service of the agencies. Only 91 of the 165 mailed questionnaires were returned providing a response rate of 55%. The survey looked at the access to ICT infrastructure by the staff, technical human resources, the availability of e-government and associated policies and agency leadership. Based on the web-sites that was observed in phase I of this study, questionnaire was developed in both English and Bahasa Malaysia and pilot tested on 5 agencies and found to be without problems. The instrument to obtain data on the internal arrangement was adapted from a similar UN instrument.. The United Nation Public Administration Network (UNPAN) questionnaires were adapted for the specific purpose of this study. The objectives of this study require basic descriptive analysis. However, some post hoc analysis of the relationships was carried out to provide an empirical insight into possible correlations.

## Results

Table 1 shows the general profile of the agencies that were studied. Reflecting the rapid uptake of e-government, all but one agency have websites (UNPAN, 2002). Most (78%) of the agency websites were less than 5 years old with a third of the websites established less than 3 years ago. For a majority of the agencies a reasonable span of time has passed since their establishment and expectations of improvements and expansions are not unreasonable. State agencies comprise 46% of the agencies in the sample while federal and local agencies make up 32% and 21% of the sample respectively. There is a slight over-representation of the state agencies in the sample.

TABLE 1: AGENCY PROFILE

No	Profile	No	%	
1	Have Agency Websites	Yes	90	99
		No	1	1
2	Age of Agency Website	> 1 year	6	6.6
		1-2 years	11	12.1
		>2-3 years	16	17.6
		>3-4 years	20	22
		>4-5 years	18	19.8
		>5 years	18	19.8
3	Position of Webmaster	Yes	55	60
		No	32	35
		NA	4	5
4	Status of Webmaster's Position	Full-time	43	47.3
		Part-time	15	16.5
		NA	33	36.2
4	Level of Government	Federal	29	32
		State	42	46
		Local	19	21
		NA	1	1

### Leadership - Policies and Plan

In 1995 e-government was identified as one of the 8 flagship projects under the Multimedia Super Corridor (MSC)

(Maarof & Soon, 1999). The Malaysian government has developed a national ICT and E-government vision to guide the transformation of the public sector in tandem with the private sector. The K-economy Masterplan also envisions rapid transformation of the government through the intensive and intelligent use of ICT especially the Internet to support the economy. Despite the strong national interest and leadership, the corresponding uptake of e-government as judged by the development of a documented e-government plan or strategy is low. Table 2 shows that about half of the 74 agencies which provided responses, did not have an e-government plan (Some agencies which did not respond to the question were asked again through telephone interview. The respondents did not know if such a plan existed. To be safe they did not answer this question). This lack of interest probably prompted the Chief Secretary of the Federal Government to urgently call for ICT blueprint (Hamidah, 2002). However, it is heartening to note that a majority of the agencies, which did not have an e-government plan, indicated that one will be developed within the next year (see table 3). There appears to be a correlation between the presence of an e-government and the location of e-government matters within the purview of the head of the agency or a technical department. Both influence and ability seem to occasion an e-government plan

TABLE 2: EXISTENCE OF E-GOVERNMENT PLANS

		Planning to Development one within a Year		Total
		YES	NO	
Do you have an E-Government Plan?	YES	1	1	2
	NO	28	8	36
Total		29	9	38

TABLE 3: LOCATION OF RESPONSIBILITY FOR E-GOVERNMENT POLICY

		Overall Responsibility for the Web				Total
		Agency Chief's Office	IT/MIS/Computer Dept.	Finance Dept.	Others	
Do You Have an Overall Strategy	Yes	12	17	1	2	32
	NO	4	0	1	2	7
Total		16	17	2	4	39

For e-government to progress beyond the publish or billboard stage, derivative policies must be developed to guide the employees actions and behaviour in the new realm (Yong & Koon, 2003). To begin with employees must be provided with emailing facilities. All employees in 38% of the agencies were provided with emails while in another 19% of the agencies only some of the employees had email facilities (see table 4). That less than half of the agencies had made emails available to all their employees is a serious set back. Without this communication tool the connectivity between the employees and the public cannot be developed. Accordingly, a minority of the agencies has a written email policy but there is a strong desire to develop one in the near future. Similarly, only 23% reported the existence of an Internet policy with 71% indicating that one will be available within a year.

Based on the data presented here on the existence of e-government plans, email and Internet policy, the progress of e-government in these agencies cannot be coherent, organised and hence, not rapid. The national level leadership in e-government and ICT is not matched by the agency level leadership as judged by the development of agency e-government plans and policies. Ad hoc and piecemeal development is likely to characterize e-government development without strong leadership to systematically integrate e-government into the agency strategic plans.

TABLE 4: INTERNET AND EMAIL POLICIES AND ACCESS

ICT Policies	Yes	No
Have an Internet policy	23.	77
Plan to have an Internet policy	71	29
Have written e-mail policy	29	71
Plan to create e-mail policy	71	29
Official email	%	
No employees	2.2	
Some employees	18.7	
All employees	38.3	
NA	8.8	

**Technical and Financial Resources**

E-government requires that staffs in the agency are trained to operate in an ICT environment. Just as firms need a Chief Information officer to plan and mobilize the use of the ICT resources to further agency goals more effectively, so must the agencies. There is a need for a dedicated officer to handle e-government issues. The existence of a full time officer to tend to the e-government matters provide some assurance that ICT needs are given some importance in the agency. Table 5 shows that 58 agencies that responded to this question, 19 had full time staff to look after the web based services. By and large, full time officers were available where there was an IT or MIS department. In 16 cases the responsibility for the web-based services was part of the responsibilities of other officers. There were also volunteers who minded the web in the agency. The presence of full-time ICT staff is indicative of the availability of technical resources to aid both planning and implementation of ICT projects and also to provide advisory services to agency managers who are not as ICT literate.

TABLE 5: STATUS OF WEBMASTER AND LOCATION OF E-GOVERNMENT RESPONSIBILITY

	Department with Overall responsibility for the Web			Total
	IT/MIS/ Computer Dept.	Finance	Others	
Full-time	16	0	3	19
Part time	3	0	8	11
Part of Another Position	16	1	7	24
Volunteer	1	0	0	1
Others	1	0	2	3
Total	37	1	20	58

It is therefore not surprising that 43% of the agencies used ICT vendors to manage E-government projects. This is because the needed skills are not available in house or unable to cope with the demands of the projects. It is also because approvals for new positions are not easy to come by with tight control of positions by central agencies. It is much easier to procure these services via private vendors. The use of vendors indicates the lack of technical resources to handle advanced ICT work within and also the trend towards outsourcing. More than half of the agencies still did not use ICT vendors. Majority of the agencies that used vendors were generally quite satisfied with their performance. Evaluation of the technical quality of the ICT services without full time ICT staff will be difficult.

TABLE 6: SATISFACTION WITH VENDORS (WEBSITE)

Web Services	Very Satisfied	Satisfied	Not sure	Unsatisfied
Website Hosting	9	74	17	0
Website Design	6	72	13	9
Website Management	9	56	22	13
Integration of Databases	10	58	19	13
Use of E-Government vendors	Yes (43%)	No(55%)	NA(1%)	

E-government does not come cheap. Large initial capital outlay is needed to create websites, acquire the hardware and software systems train staffs, to digitize old records, create new database systems to hold data and to develop security systems to ensure integrity of the system. Although central agencies fund and develop shared systems, most of the e-government projects have been funded by the agencies. Hence, the allocation for e-government is an indicator of importance of e-government in the agency. It must, however, be stated that some of the finances for e-government may be provided under other items like equipment, travel, services, maintenance etc. It is reasonable to say that the actual availability is more than the amount cited here. The allocation cited in Table 6 is not large in absolute terms but the true size can only be understood in relations to the total budget of the agency. These allocations would probably allow the agencies to continue to rely on the vendors to support the web services.

TABLE 7: ALLOCATIONS FOR E-GOVERNMENT IN MALAYSIAN RINGGIT (RM)  
(3.8 RM = 1USD)

Allocation	No	%
0-50,000	40	44
51,000 – 100,000	11	12
101,000 – 150,000	6	7
151,000 – 200,000	4	4
201,000 – 250,000	3	3
> 251,000	20	22
NA	7	100

### E-Government Services

The range of services provided via the e-government channel is limited (see Table 8). Between a quarter to a third of the agencies provided forms download, citizen relationship services, information services and document and data. This is symptomatic of the transact or publish stage in e-government transition. The effectiveness of the services are still in doubt. For example, a study of the responsiveness of the agency staff to inquiries produced dismal results with barely 2% responding (Hazman et al. 2004). A major obstacle to complete e-government services online is the question of making payments. Table 9 shows that 22 of the 78 agencies have e-payment for licenses and fees. This often relates to payment by users to their credits card issuers with whom the agencies maintain payment arrangements or through the Postal Corporation. For example, the motorists with traffic summons from the Police can settle it through authorized third party via credit cards (Sharifah, 2005). Public confidence and trust in Internet based payment is still low (Taylor Nelson Flores, 2001; Maniam & Hazman, 2004). The frequent reports of security breaches in banks have not helped develop public confidence in e-payment. Without e-payment services in place, e-government cannot go fully online. This stage characterizes much of the e-government in the world (Holmes, 2001; Yong, 2003).

TABLE 8: E-GOVERNMENT SERVICES

e-Government Services Provided	Provided	Plan to provide
Provision of forms	28(44%)	35(56%)
Application inquiries	9(18)	42(82)
Complaints of agency services	38(58%)	28(42%)
Information on rules and regulations	23(48%)	25(52%)
Client relations (FAQs, helpdesk etc.)	35(58%)	25(42%)

TABLE 9: ONLINE PAYMENT FOR AGENCY SERVICES

Type of Services	Provide	Plan to provide	No plans
Online payment of tickets/fines	1	11	88
Online payment of taxes	3	21	76
Online payment of licenses/fees	22	0	78
Other payments	8	0	92

Yet another indicator of how readiness the agencies are to go fully online is the extent to which supplies are e-procured. Both the confidence in e-commerce and technical sophistication that follows the use of e-procurement has positive spillover benefits for e-government. As can be seen from Table 9 the uptake of e-procurement is low with 96% responding in the negative but indications of future developments are there.

TABLE 9: E-PROCUREMENT OF SUPPLIES

No	Procurement	Yes	No	NA
1	Procurement of supplies over the net	4	96	0
2	Plans to procure supplies over the net	32	60	9
3	Post bids/RFP on the web	4	93	2
4	Plans to post bids/RFP on the web	34	54	12

**Perception of E-Government**

E-government is not merely a technology issue, it is as much a change management challenge. To motivate change the agencies must admit to and believe in the benefits of e-government (Jasni & Hazman, 2002). A high majority of agencies did not believe e-government reduced the need for staff contrary to the belief that efficiency gains are the instrumental reason for e-government. A majority of the agencies did not believe that e-government reduced time demands of the government. In fact 65% reported that e-government increased demands on the staff. The agencies are about equally divided about on the question of e-government changing the role of the staff. Paradoxically, the processes were reengineered with little improvements in efficiency. Revenues did not rise but administrative cost did. However, a majority of the agencies agreed that it is too early to assess e-government. Perhaps during the transitional phase where both online and conventional services are maintained, workload increases along side costs.

TABLE 10: EFFECTS OF E-GOVERNMENT

No	Effects	Yes		No	
		Freq.	%	Freq.	%
1	Reduced staff requirements	11	12	80	88
2	Changed role of staff	44*	49	46	51
3	Reduced time demand on staff	36	40	54	60
4	Increased demands on staff	32	35	59	65
5	Increased non-tax revenue	10	11	80	89
6	Business process reengineered	30	33	61	67
7	Business process more efficient	57	63	34	37
8	Reduced administrative cost	27	30	63	70
9	Too early to tell	34	63	57	37

\*Total may not add up to 91 because of missing data

**Discussion and Conclusion**

Most surveys of e-government have examined and concluded, on the basis of the digital service windows of the public agencies, the state of e-government in the world (Taylor Nelson Sofres, 2002; UNPAN, 2004). While the websites provided valid evidence of the state of e-government, it does not reveal all. The state of leadership within the agencies i.e. planning, policies and strategies, the availability of technical and financial resources, the plans to

launch services and perceptions of how e-government has impacted the agency are hidden from view. Consequently, the picture painted of e-government is a rather limited one at best and a distorted one at worst. The readiness to move from the 'publish' stage to the next 'transact' stage is lacking in most agencies surveyed. E-government plan at the agency level is mostly non-existent even though there is some interest in developing one in the near future (Hamidah, 2002). Perhaps, agencies still expect the central agencies like Malaysian Administrative Modernisation and Manpower Planning Unit (MAMPU) which developed plans and strategies to take the lead. As has been argued the transition to the transact stages will be slow. Without a carefully planned transition, the e-government evolution from the 'publish' to the 'transact' stage will be slow, chaotic, duplicative, insular and suboptimal. This stage requires careful planning of the information architecture and the digitization of the manual back-end operations. This stage represents a major re-engineering exercise with implications for staffing levels, training and retraining and many pockets of people who previous wielded influenced in the manual system will face elimination (Norris et al., 2001). The government agencies cannot retrench easily. The lack of plans and policies is also because of the unavailability of technical staff who can inform and guide these plans in the agency. Consequently, there is heavy dependence on the vendors who are likely, in the absence of strong client knowledge and specification, to chart the path that is profitable. While the use of vendors helps to offset the lack of in-house technical capabilities, excessive dependence can be exploited by the vendors to sell outdated and restrictive systems that create serious legacy issues when inter-agency connectivity is developed. However, the rising attractiveness of externalizing internal services to enhance efficiency and the promotion of outsourcing of internal services may actually delay the acquisition of in-house technical resources. The likelihood of e-government plans increases if the agency chief's office is responsible for it. Clearly, top management interest and commitment, as in all other change initiatives; seems to produce some planning for e-government.

The range of services presently provided is limited. A third of the agencies make available various application forms through the website. A majority of the agencies allow inquiries and complaints to be channeled through the use of emails. However, the effectiveness of these means in furthering the interactional quality is open to question. A recent study reported that a very small number actually responded to email inquiries sent to the agencies as part of a part of the public agency websites (Hazman et al., 2004). The relatively low level of Internet subscription among Malaysian public (12.4 %) in part explains the low interest and limited progress of the agencies in developing the e-government services (Malaysian Communication and Multimedia Commission, 2004). For the agencies that do not currently offer information and interactional opportunities, there is some interest in making these services available in the near future. Fully online services are highly limited contrary to some reports. Fee and summonses payments are presently enabled through the use of third party intermediaries. Many agencies like the local authorities, Royal Malaysian Police, Immigration and Road Transport Department offer online services via the National Postal Corporation network of branches. But these agencies still do not offer payment of fees online through the net. This approach appears to solve many teething technical problems for now for these agencies and offer a viable route to further development of e-government. The lack of online services is also due to strong concerns of security among the people despite fairly encouraging views about trust in government and perceptions of security (Razlan, 2002; Taylor Nelson Sofres, 2002; Maniam & Hazman, 2004; Economist Intelligence Unit, 2004:10, 12). Rapid development of e-commerce will help to extinguish these fears and enable e-government to move a notch higher to transaction phase. But the current state of e-government services is best described as infant and experimental in most cases. E-government is not only about how public agencies deliver services to their clients but also how ICT used to manage relationship all parties. In this connection, the use of ICT to link with the suppliers is also an important indicator of readiness within the agencies. The use of e-procurement is minimal even though the central agencies especially the Treasury has already rolled-out the application and is undergoing phased implementation.

Given the euphoric proclamations that e-government will transform the government radically by improving service delivery, remove agency silos, re-engage the public and generally promote participation and democracy, it is easy to believe in the infinite efficacy of ICT (Costada, 2002; West, 2004). The perceptions of the key managers in the public agencies determine to a large extent how fast e-government progresses. The respondents believe that e-government make additional demands on the staff time, expands the scope of work and does not reduce demand for staff. Therefore from a human resource standpoint the e-government is more hassle. From the process standpoint, a

majority of the agencies believe that the agency processes have not changed nor become more efficient. Administrative cost, contrary to popular belief, has not reduced either (Caldow, 1999). The case for e-government at the agency level is not a very compelling one. The e-government initiative is probably viewed as a national project driven from the top. Hence, the agencies in the periphery have to comply and make some progress. Locally driven change to e-government requires a strong shared believe in the efficacy of the ICT in the delivery of agency services. E-government probably suffers from a common disease that afflicts change initiatives – poor perception of utility. The negative perceptions can also be attributed to the e-government strategy of viewing e-government as alternative to the conventional service. Hence, the agencies have to cope with the dual system of delivery which necessarily makes additional demands on the staff who are less effective in the new ICT environment of work. The contribution of e-government to the agency may not be, at this early stage of e-government, commensurate with the resources expended. The negative perceptions of e-government are quite natural, understandable and expected. Hopefully further development of e-services, higher Internet penetration among the public and better e-payment systems, e-government will begin to deliver the benefits as claimed and also experience in many other jurisdictions in the world.

In summary, the level of e-government readiness in Malaysia portrayed in this study is quite inconsistent with the reports by many international surveys. As has been stated, this study examined the readiness by examining the leadership, the resource availability, e-services offered, e-payment and e-procurement and the perception of e-government at the agency level. The view of e-government from the quality of the website, although is a widely used approach in assessing e-government, is not adequate when investigating the readiness to progress from the ‘publish or broadcast’ stage to the ‘transact’ stage. The extent of planning and resource availability will determine the speed of change and also the quality of e-government that can be expected. Greater interest and commitment of the agency managers must be created by, not only issuing change circulars and national e-government vision documents, but also by providing more technical assistance to the agencies to plan and implement the changes, some of which are fundamental and demand new competencies. Without centrally guided planning and implementation of digitization of agency records and information, the next stage of e-government will be slow, chaotic and insular. The state of e-government readiness as etched out by this study is still massively wanting. The utopian conception of e-government as a singular portal with virtual departments and agencies is still a notion in the realm of technological possibility.

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# Managing E-Business Initiatives in Turbulent Business Environment

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## Abstract

**This paper highlights the strategic decision making of firms in adopting e-business technology. It is hypothesized that firm adoption of e-business technology depends on the motivations of adoption. While it is posited that firm technology motivations influence e-business adoption, firm market orientation and its business environment lead towards the choice of organizational technology motivation. Our rationale is based on the strategic choice and or contingency theory perspective in tandem with the strategic implications of market orientation. In testing the hypotheses of this study, a survey was carried out consisting of 153 manufacturing companies in Malaysia. The findings substantiate our proposed technology motivation construct and its relationship with firm market orientation and its business environment.**

## Introduction

In responding towards the dynamic and competitive industry environment, firms have resorted to technology in order to meet market demand or improve firm competitiveness (Gagnon and Toulouse, 1996). Numerous researchers have agreed that the adoption of new technology is a strategic issue and is essential for firms to be successful (Gagnon and Toulouse, 1996; Porter, 1980). The “explosion” of the digital economies has further magnified the importance of this area for further understanding. Hence, adoption of innovation continues to be an important area of research inquiry in marketing for many years (Plouffe et al., 2001).

Nevertheless, the process of new technology adoption is often plagued with uncertainties. Although managers in adopter firms want to make an appropriate decision, it is not a simple task. The “abundance” of technology options and the “overlaps” of technology applications could confuse managers in deciding technology that is appropriate for their situations. With regards to the emergence of new technologies like e-business, firm “innovativeness” in adopting these technologies varies distinctly. In addition, the study by Datamonitor (Lord, 2001) reveals that the industry has different levels of adoption in the four areas of e-business which are enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM), and e-commerce.

## Problem Statement

Studies on organisational technology adoption have identified various factors that influence firm propensity to adopt new technology (Meyer and Goes, 1988; Gopalakrishnan and Damanpour, 2000). However, previous studies on innovation adoption have primarily taken an organisational theory perspective and explored the organisational determinants of innovation adoptions (Damanpour, 1988, 1991). These organizational characteristics consist of “visible” features of an organization. We take the position that although these studies are useful in providing insights toward the understanding of organizational innovation adoption, we agree with Mohamed (1995) that adoption does not guarantee usage. Studies of organizational innovation adoption show that although firms could “technically successful” in adopting new technology, the adoption could “fail organizationally” in that people do not actually use it (Keen, 1981; Urban, 1974). Behavior-related problems (Markus, 1983) are commonly recognized as reasons why the “appropriate” organizational culture is pertinent in accommodating new technology.

This is corroborated by Cravens et al. (2002), who asserted that the assessment of innovation success in organizations often points to the importance of delivering a culture committed to innovation. Nevertheless, there is not a single study to date that has examined the effect of culturally-based organisational characteristics as predictors in studying organisational technology adoption or e-business adoption specifically. Therefore, this paper fills the gap

in the innovation literature by studying the influence of the culturally-based organisational characteristics (market orientation) as predictor in organisational technology adoption.

Apart from organizational characteristics, firm business environment has been commonly examined to influence the decision making of new technology adoption. The firm response to the environment could be hypothesized as either from a contingency theory perspective (Kast, 1973) and /or strategic choice perspective (Child, 1972). We argue that whatever perspective is adopted, the firm's response to the environment is "channeled" through the firm "technology motivation", where the adopted technology is a manifestation of firm's analysis of the environment and its taken course of action. Given that innovations are adopted with the intention of increasing organisational performance (Damanpour, 1990; 1991), it is surprising that there is very little information on firm motivations of new technology adoption.

## **Theoretical Background**

### **Market Orientation**

Market orientation has been recognised to reflect a philosophy of doing business that can be considered a central ingredient of a successful organisation's culture (Hunt and Morgan, 1995; Slater and Narver, 1990). The culturally based behavioural perspective defines market orientation as "the organisational culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus, continues superior performance for the business (Narver and Slater, 1990)." The authors inferred that market orientation consists of three behavioural elements which are customer orientation, competitor orientation and interfunctional coordination.

The relationship between market orientation and innovation has been discussed and noted by various researchers (Atuahene-Gima, 1996; Hurley and Hult, 1998). Deshpandé et al. (1993) suggested that the success of a firm's innovation is probably the excellent visible manifestation of its market orientation, along with the success of the firm. The researchers, after finding firm's performance to be linked to both market orientation and innovation, speculate on a causal relationship of market orientation, innovation, and performance. Reiterating the earlier statement of Deshpandé et al. (1993), Slater and Narver (1994) reason, "Innovation and new product success are more likely to result from being market-driven". Surprisingly, however, the noted relationship has been merely intuitive and remains anecdotal, due to limited empirical evidence (Han et al., 1998; Hurley and Hult, 1998; Lukas and Ferrell, 2000).

Jaworski and Kohli (1993) have suggested that because a "market orientation essentially involves doing something new or different in response to market conditions, it may be viewed as a form of innovative behaviour". Although Jaworski and Kohli (1993) do not deal with innovation explicitly in their model, their subsequent work (Jaworski and Kohli, 1996) suggests that market orientation is an antecedent to innovation. Slater (1997) briefly comments on the idea that "successful innovation is the product of a market orientated culture coupled with entrepreneurial values". In addition, Jaworski and Kohli (1996) have recognised that innovation has been inappropriately absent in models of market orientation.

In this study, we have taken the view that market orientation and innovation relationship is mediated by technology motivation. Our rationale is based on Hurley and Hult's (1998) argument that market orientation is a source of new ideas and motivation to respond to the environment. The motivation to respond to the environment may consist of a balanced mix of the components of market orientation (Narver and Slater, 1994) or there may be an emphasis on one of the components. Deshpandé et al. (1993), for instance argued that customer orientation is the most fundamental aspect of a corporate culture. Thus, although a firm is market-oriented, their motivation in responding towards the environment depends on their perspective and emphasis.

### **Firm Business Environment**

The ability of an organization to adapt to changing environmental circumstances is the key to organizational survival (Lawrence, 1981) and the effectiveness of the adaptive response is dependent on aligning the response to the environmental circumstances faced by the organization (Hambrick, 1983; Miles and Snow, 1978). The firm's response to the environment could be hypothesized from a contingency theory (Kast, 1973) or strategic choice perspective (Child, 1972). The contingency theory postulates that the effectiveness of the organization depends on

the congruence between elements of the organization subsystem and the demands of the environment, while the strategic choice perspective suggests that through choices made, key decision-makers have considerable influence over an organization's future direction. We argue that whatever perspective is adopted, the firm's response to the environment is "channeled" through technology motivation, where the adopted technology is a manifestation of firm's analysis of the environment and its taken course of action. The firm business environment adopted in this study is environmental hostility.

Environmental hostility is defined as unfavorable business climate, featuring intense competition for limited resources or market opportunities (Miller and Friesen, 1982). Environmental hostility represents the perceived frequency of change and turnover in the marketing forces of the external/task environment (Aldrich, 1979). In addition to rapid continuous change, sudden discontinuous changes are also prevalent (Sutton et al., 1986). Changes in technology, customer preferences and competitive action are some examples of environmental hostility. Uncontrollable changes in the market evolution, technological evolution, or changes in the value-added system can bring about dynamic, turbulent environmental conditions (Bourgeois and Eisenhardt, 1988; Utterback, 1979). This construct has also been referred to as environmental dynamism, variability or volatility (Child, 1972), and is considered a dimension of environmental uncertainty (Scott, 1992).

Under this market conditions, profit margins are characteristically low among firms in these environments (Potter, 1994). Therefore, survival rather than competitive excellence is often viewed as a noteworthy accomplishment (Covin, Slevin and Heeley, 2000). In addition, in a hostile environment, strategic decision making can be particularly difficult, as it is hard to predict the likely importance of these changes as they occur (Sutton et al., 1986). There are clear risks with being too aggressive in the face of environmental hostility. A firm can commit to technologies, production resources, and markets that ultimately do not become dominant or significant. Such investments in wrong technologies are very costly. On the other hand, if a firm possesses the distinctive competences needed to succeed in the changing market, waiting too long to enter may result in missing a strategic window (Abell, 1978; Day, 1986).

#### **Technology Motivation**

The technology motivation construct adopted in this study is based on previous studies that used perceived benefits as their theoretical basis. In exploring firms' adoption of new technologies, various studies have used Rogers' (1983) perceived benefits as their predictor variable (e.g. Iacovou and Benbasat, 1995; Premkumar and Roberts, 1999). The perceived characteristics of an innovation can be considered as cognitive indices (or beliefs) reflected in an attitude towards the innovation (Le Bon and Merunka, 1998). Le Bon and Merunka (1998) elaborated that there is conceptual and empirical evidence that, in organizational settings, attitudinal components mediate the influence of external variables, such as motivation, on behavioral intentions.

Although perceived benefits have been shown as an important predictor of firms' new technology adoption, there is not a single study that seeks to determine the "antecedents" of the construct (Min and Galle, 2002). This is an unusual phenomenon because a firm cannot evaluate the need for or benefits of a new technology without a clear notion of what the technology encompasses. In today's technology, for instance e-commerce or e-business, what is meant by the term itself varies (Banaghan and Bryant, 1998; Peterson, 1997). These technologies include so many activities that it can be difficult for managers to decide where and how to use them in their businesses (Schneider and Perry, 2000). Hence, there is a pressing need that the technology motivation construct is developed.

#### **E-Business Technology**

In defining e-business components, we used Porter's value chain analysis (Porter, 1980) to refer to the 'original' context of the technology. Initially, e-business is defined as any form of commercial or administrative transaction or information exchange that takes place via an information communication technology-based, computer network (Moodley, 2002). The process may range from internal production processes such as the usage of an enterprise resource planning (ERP). Meanwhile, back end management includes supplier chain management (SCM) to integrate with supplier's inventory and demand forecast systems. The front-end management includes sales and marketing-focused processes which consist of business transaction and customer management. Business transactions include marketing and selling activities which normally focused on e-commerce technology. Finally, customer relationship management (CRM) integrates customer information systems and customer service.

## Hypothesized Relationship

The information technology (IT) literature has shown that firm investments in IT are driven by operational or strategic considerations (Sriram and Stump, 2004). In pursuing specific motives, firms critically evaluate the various choices of available technologies that could fulfill their needs or intention. Rogers (1983) stated that not all innovations are relevant to an organization. Hence, although e-business technologies attempt to link firms with strategic and operational considerations, firms have to select the “appropriate” technology. This is because different e-business applications fulfill different adoption motives. Therefore, compatibility with firm needs is a critical variable in determining the specific e-business application that would be adopted (Sarrina Li, 2003). In addition, the mechanism adopted by firms can be either a response to the changes in the business environment or as a pre-emptive action to influence the business environment. Therefore, we argue that there is a relationship between firm technology motivation and technology adoption. Consequently, this leads to our central hypothesis:

**Hypothesis 1: There is a positive relationship between firm technology motivation and e-business technology adoption**

E-business technology components such as e-commerce, ERP, SCM and CRM, for instance, are contingent on having a culture that fosters cross-functional sharing of information (Ingram et al., 2002; Thompson, 2001). Our argument is consistent with Schein’s (1985) definition of corporate culture as “a set of basic assumptions - invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration - that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems”. Hence, organizational culture can also be conceived as a solution to a managerial problem. Therefore, there is appropriate justification to argue that organizational culture influences the probability of a firm’s adopting new technology.

A market orientation culture is prevalent in organizations that would engage in “innovative” solutions. The motives for market oriented firms engaging in new technology adoption (e.g. e-business) are both operational and strategic. Many e-business technologies are particularly suited to supporting a market orientation by providing a responsive and interactive medium through which an organization can gain and respond to in-depth knowledge with respect to competitors’ and customers’ profiles (Peterson et al., 1997). Customer information could also be used to predict or assess customer demand where firms could tailor their products to meet the unique needs of their customer. Finally, e-business could also be used to detect competitor’s initiatives, and thus, keep abreast of their rival’s market profiles. Hence, this leads to our subsequent hypotheses:

**Hypothesis 2: There is a positive relationship between a firm’s market orientation and its technology motivation**

Firm’s motivation in responding to the environment has been noted to vary. Miller (1987) found that firms adopt market differentiation strategies to avoid direct competition and as means for creating and sustaining distinctiveness. Meanwhile, Parker (1990) observed “efficiency” strategies, characterized by efforts to control costs were common responses to the intense hostility of the textiles industry.

Hall (1980) study of survival strategies among 64 large manufacturing in eight hostile industries found effective cost leadership strategies were characteristically observed supported by investments in modern, automated process technology. In environment where economies of scale exist, firms that do not subject to geographical market constraints may be able to reduce costs structures through volume production and compete effectively on a price basis. Edelstein (1992) corroborates the argument that serving broad geographical markets is important under hostile conditions. Finally, Gagnon and Toulouse (1996) reported that firms adopt technology in order to respond to market demand and to maintain or improve their competitiveness. Thus, as explained by the above literature, firm’s motivation in responding to the hostile environment may comprise of creating or sustaining competitiveness, efficiency and effectiveness and market growth. Consequently, this leads to our following hypotheses:

**Hypothesis 3: A firm’s technology motivation is likely to be greater, the more hostile the business environment**

**Figure 1: Research Theoretical Framework**

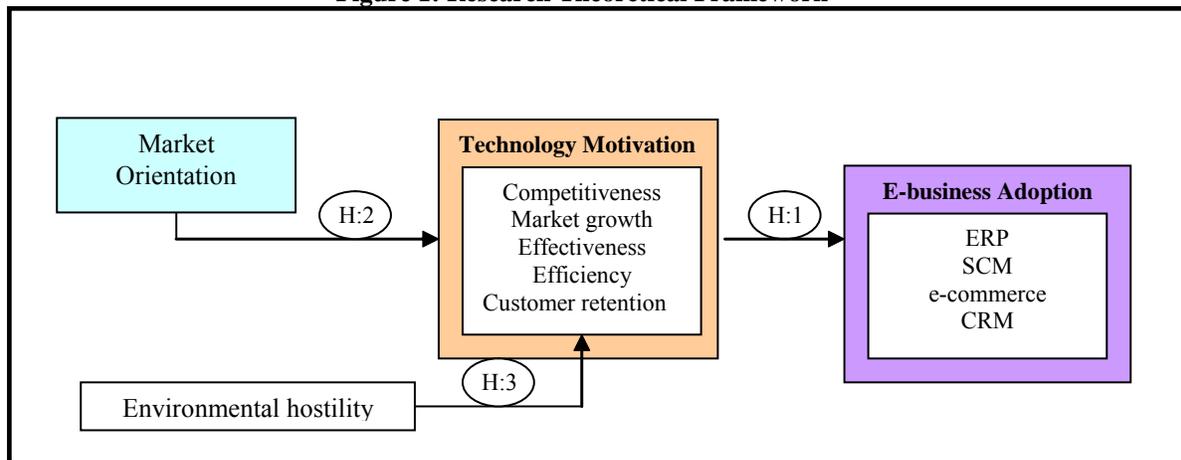


FIG. 1: ILLUSTRATES THE RESEARCH THEORETICAL FRAMEWORK THAT DESCRIBES THE ABOVE THEORETICAL UNDERPINNINGS

## Methodology

### Data Collection

After piloting the questionnaire and making amendments to the layout and ordering, the main survey was administered by post to a sample of 1700 corporate managers. Responses were required from key informants knowledgeable in a variety of tactical and strategic activities (Bowman and Ambrosini, 1997). Thus all the questionnaires were address personally to the most senior manager of the firm. The sampling frame is based from the Federation of Malaysian Manufacturers (FMM) Year 2001 directory. All respondents received a package containing a letter explaining the purpose of the study, requesting their participation and promising confidentiality, the questionnaire and a postage-paid return envelope. A summarize findings of the research were offered to the respondents as an incentive for response.

### Response Rates

From the 1700 questionnaires that were sent, 220 questionnaires were returned due to wrong address, cessation of operation and company relocation. 160 completed questionnaires were received. 7 of those questionnaires were discarded because large sections of the questionnaires were incomplete including missing pages. This comprised an effective response rate of about 11% which surpassed its predicted response rate, based on nationality, of only 4.8% (Harzing, 1997).

### Sample Characteristics

The final usable sample contained 153 responses from various industries such as automotive and component parts, pharmaceutical and medical equipment, electrical and electronic parts, industrial and engineering products. This is consistent with the industry population. In terms of firm size, the sample comprised a fairly mixed number of SMEs and large firms. Finally, all respondents were key informants who were knowledgeable concerning their firm, industry and the phenomenon being studied. This is depicted in the sample composition, which comprised 5.2% owner/manager, 7.2% CEO/President, 20.9% managing director, 22.9% general manager and 43.8% senior manager/manager. The majority of the firms sampled had been established more than 10 years where only a mere 10% had been established for less than 5 years.

Potential non-response bias was assessed by comparing returned questionnaires on key variables (Armstrong and Overton, 1977). No significant differences were found between the early and late respondents. Thus, we are reasonably confident that non-response bias would not pose a major problem.

### Research Instruments

The measures for technology motivation and e-business adoption were newly developed for this study. In

establishing the scale development and validation procedure, the suggestions of Churchill (1979) and Gerbing and Anderson (1988) were followed.

#### **Market Orientation**

To measure the market orientation construct, we choose the scale developed by Narver and Slater (1990). For the purpose of consistency with the rest of the scales, the original 7-point Likert scale was rescaled to a five-point Likert scale ranging from strongly disagree (value 1) to strongly agree (value 5). Although market orientation construct produced a low goodness-of-fit score, we would continue to use the construct for our analysis. Sigaw and Diamantopoulos (1995) investigation of the dimensionality of Narver and Slater (1990) market orientation measurement using CFA also produced similar results. Nevertheless, as argued earlier, Narver and Slater (1990) market orientation scales continue to be used in many studies (Greenley, 1995; Han et al., 1998; Harris and Ogbonna, 2001, Hooley and Cox, 2000).

#### **Environmental Hostility**

Respondents were asked to assess their firm's business environment by indicating their strength of agreement from strongly disagree (value 1) to strongly agree (value 5). The environmental hostility scale was adopted from Jaworski and Kohli (1993). Environmental hostility was initially assessed by asking the respondents in a five item scale the competitive intensity in the industry. Following similar purification analysis, the remaining four item scale yield an alpha value of 0.70.

#### **Technology Motivation**

A fifteen-item scale of technology motivation was initially developed specifically for this study using 5-point Likert-type scale items. In this instance, the measure was developed in stages following the guidelines of Churchill (1979). Based on the review of the literature (Lal, 2002; Morrell and Ezingard, 2002; Vlosky et al., 2000) and field interviews with managers, we generated a pool of items for the technology motivation constructs. It emerged from our exploratory study that firm's technology motivation consists of five components which are competitiveness, market growth, efficiency, effectiveness and customer service. We later tested each of these items with a number of academic experts, who critically evaluated the items for representativeness, item specificity and clarity of construction. We used the feedback we received in this stage to further refine the items.

Respondents were asked to assess the importance of their firm's motives, as they perceived them, in coming up with the decision to adopt e-business technologies. These motives were assessed on a continuum from not important (value 1) to critically important (value 5). Only six items were left representing effectiveness (three item scale) and customer service (three item scale) after EFA and CFA were applied to the measure. The overall internal consistency reliability (alpha) of technology motivation scale developed in this study was 0.93.

#### **E-Business Adoption**

A total of seventeen items were developed for this study using a 5-point Likert-type scale items. These items were developed based from a combination of previous studies of e-business technologies and from our exploratory study. Consistent with the previous literature review, it emerged from our interviews that managers cognitively clustered e-business activities as pertaining to suppliers, the internal operations of the business and to customers. Similar steps were followed as in the development of technology motivation measure. Subsequently, EFA and CFA were done on the measure, which resulted in eleven items being deleted from the e-business construct.

E-business adoption in e-commerce activities was measured by a two-item sub-scale that assessed the firm's application in customer's online ordering and firm's participation in online business portals. E-business adoption in the SCM was measured with a two-item sub-scale that assessed online order placement with suppliers and participation in online supply side marketplaces. E-business adoption in CRM was measured with a two-item sub-scale that assessed the respondents view on their firm's application of email like facilities in communicating and responding to customers' enquiries and quotations. The two items to measure e-business adoption in ERP were dropped due to poor internal consistency reliability ( $\alpha = 0.44$ ) after EFA.

In summary, e-business adoption is a construct represented by e-commerce, SCM and CRM. The items in this measure were scaled as '1' indicating no (not adopted), '2' indicating under implementation, '3' indicating implemented 0 to 1 year, '4' indicating implemented 1 to 2 years and '5' indicating implemented over 2 years. The internal consistency reliability (alpha) of the sub-scale developed in this study for e-commerce was 0.89, SCM was 0.57 and CRM was 0.74. The reliability of the scale as a whole was 0.70. Finally, the whole constructs were

subjected to a more rigorous testing of construct and convergent validity. Table 1 shows the goodness-of-fit indexes, composite reliabilities (Cp) and average variance extracted (AVE) scores for the whole constructs. With the exception of market orientation, the whole constructs exceed the recommended goodness-of-fit index including the more stringent measure of internal stability which is Cp and AVE. (Bagozzi, and Yi, 1988; Diamantopolous, and Siguaw, 2001).

TABLE 1: GOODNESS-OF-FIT INDEXES

Item	NFI	GFI	df	Chi Square	Cp	AVE
Environmental Hostility	0.9947	0.9973	2	0.61	0.7359	0.4135
Market Orientation	0.6376	0.682	77	375.27	0.9323	0.5016
Technology Motivation	0.9719	0.9096	38	62.89	0.7601 0.9172 0.9324 0.9552	0.6131 0.7873 0.8213 0.8767
Technology Adoption	0.90	0.91	13	37.64	0.8951 0.9445 0.7966	0.749 0.895 0.6654

## Findings

Following Anderson and Gerbing (1988) the items were later used simultaneously to estimate the measurement and structural model. We used structural equation modeling to test the significance of technology motivation as the mediating variable in the market orientation, environmental and e-business adoption relationship. The structural model as shown in figure 2 has a poor fit. The relatively poor fit in these models was not because of poor measures as the results of CFA showed that the model fit for all the measurements were very good (with the exception of market orientation). The reason could possibly be the treatment of technology motivation and e-business adoption as one construct rather than broken down into specific factors. Further analysis of the separate influence of the specific dimensions would be beneficial in future studies. In addition, market orientation scales should be subjected to similar rigorous testing of convergent validity in future.

The findings reported in Table 2 support H<sub>1</sub> as the (standardized) parameter from technology motivation to e-business adoption is positively related (.44) and significant ( $t = 4.31$ ). The results also support H<sub>2</sub> as market orientation positively influences technology motivation (.24) and significant ( $t = 2.50$ ). For business environment, the results support H<sub>3</sub> where firm's business environment is positively related to technology motivation. Figure 2 provides the parameters for our theoretical model and the following table provides the details for parameters and  $t$ -values.

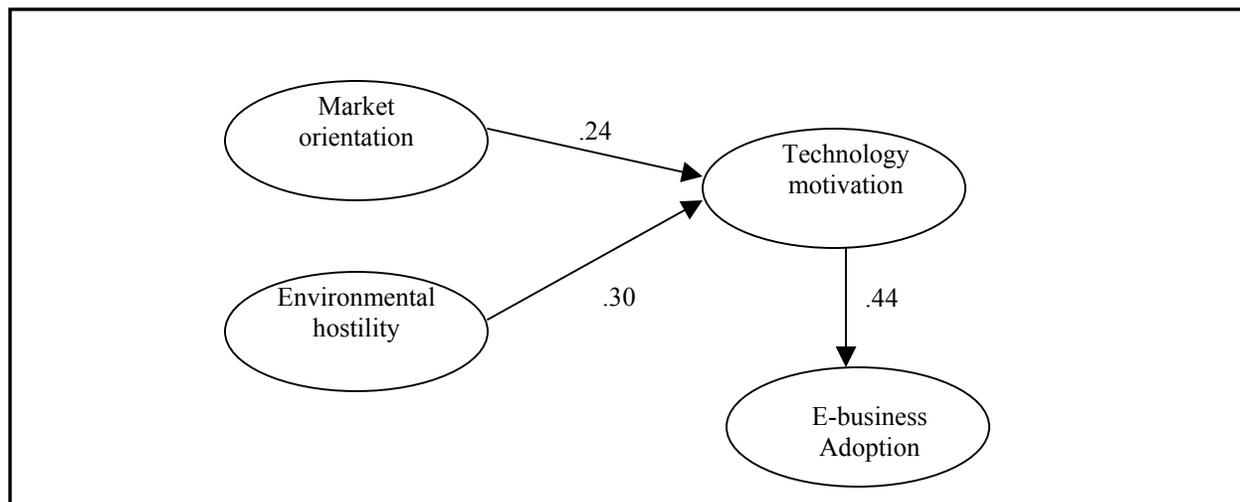


FIG. 2: THEORETICAL MODEL PARAMETERS  
 Model Fit: Chi-Sq.1517.91, d.f. 697, G.F.I. 0.5963, p=.000

TABLE 2: RESULTS OF STRUCTURAL EQUATION MODELING

Path to	Path From	Hypothesis	Standardized structural Coefficients	t-values
E-business adoption	Technology motivation	1	0.44	4.31
Technology motivation	Market orientation	2	0.24	2.50
Technology motivation	Business environment	3	0.30	2.58

## Discussion

This study explored the relationship between technology motivation and e-business adoption. The central hypothesis is technology motivation mediates the relationship between the key determinants of adoption and e-business adoption. The results provided evidence that firm’s technology motivation positively influences e-business adoption. Thus, the higher the firm’s technology motivation, the higher the likelihood that the firm would adopt e-business technology. This correlates with previous studies that show firm’s motivation helps drive technology adoption in firms (Kaplan, 1999). Gagnon and Toulouse (1996) inferred that each motivation represents an opportunity for the organization and such opportunities are widely considered as a clear driver for adoption. However, the usage of overall composite score in technology motivation obscures the possible relationship whether firm’s adoption motive influences the adoption of a specific type of e-business technology. The discovery would reinforce Sarinna Li’s (2003) argument that compatibility with the needs (motive) is a critical variable in predicting whether a technology will be adopted. As each e-business technology ‘promise’ a particular benefits to the adopter, it is reasonable that firm adopt a technology that correspond with their motive.

The findings in this study also provided some insight in the market orientation and innovation adoption relationship. The results depicted market orientation is indirectly related to technology adoption through technology motivation. This substantiates our argument that market orientation is a source of new ideas and provides motivation for firm’s to respond (Hurley and Hult, 1998). Their responds to the environment will however depend on their perspective and emphasis that may result in a balance or skewed market orientation. The in-depth interviews conducted in the earlier period of this research also reveal that the decisions to adopt e-business technologies in firm were generally based on firm’s reaction towards their customers. The entire companies interviewed attempt to keep track of their customers and market. These companies take significant attempt to improve their customers’ satisfaction by responding towards their complaints and suggestions. The companies also emphasis on quality

communication among their employees by setting up substantial infrastructure. Thus, various new technologies were adopted in the process. The findings conform to previous study that market orientation facilitates organizational adoption (Han et al, 1998). It also highlighted Venkat (2000) study that found higher market orientation seems to lead to higher e-commerce adoption. Venkat (2000) reasoned that e-commerce benefits that are responsive to customers could have lead to e-commerce adoption although he stated that the relationship has never been explored.

In determining the business environment and technology motivation relationship, the results provided substantial evidence that firm's business environment positively effect technology motivation. This conforms our argument that firm's business environment provides motivation among firms to respond through their interpretation and perception of the environment. As shown in previous studies, firms may react by taking either an operational measures through 'efficiency' and 'effectiveness' strategies or strategic action through market expansion and improving competitiveness (Parker, 1990; Hall, 1980; Edelman, 1992; Gagnon and Toulouse, 1996). Our qualitative findings found companies in hostile environments reveal that their reasons for adopting various technologies such as email and ERP were to improve firm's effectiveness through cost savings and reduction in mistakes. In addition, firms adopt e-commerce technologies with the intention to improve their corporate image and as an avenue for market extension.

## Conclusion

This paper attempts to fill the gap in the organizational technology adoption literature where existing explanations have been focus on firm, market characteristics and the technology itself. The concept of technology motivation put forth in this paper has provided significant findings especially in the adoption of e-business technology. The hypothesis driving the study revealed that understanding the diversity of motivations which influence organizations' technology adoption is central to managing the adoption process. It is through an understanding of the various motivations that variations in preference for adoption will be revealed.

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# A Study of Factors Influencing Adoption of Wireless Internet Banking Services

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## Abstract

With widespread use of Internet banking and high penetration of such devices as PDA, cellular phones, wireless notebooks, etc, financial services through mobile telecommunication are increasing rapidly. Especially, mobile financial services provide convenience and promptness to customers along with a cost-saving benefit. With this reason, banks are interested in expanding their market through mobile services. This study using TAM (Technology acceptance model) identifies factors influencing mobile banking service adoption. Specifically, we focus our attention on the perceived risk, usefulness and trust that affect the adoption of wireless Internet banking.

## Introduction

Mobile commerce refers to commercial transactions conducted through a variety of mobile equipment over a wireless telecommunication network in a wireless environment (Barnes, 2002; Coursaris and Hassanein, 2002; Gunsakar and Ngai, 2003). Currently, these wireless devices include two-way pagers/SMS (Short Message Systems), wireless application protocol (WAP)-equipped cellular phones, personal digital assistants (PDA), Internet-enabled laptop computer with wireless access capacity, and consumer premise IEEE 802.11(a/b) wireless network devices (Leung and Antypas, 2001).

With the explosive growth of the mobile telephone population, combined with the development of wireless technologies, m-commerce is becoming increasingly important to many businesses nowadays (Hung et al., 2003). According to the Wireless Week (2004), there are currently 94.9 million M-commerce users in 2003 worldwide and the segment is expected to grow to 1.67 billion by 2008. In addition, global revenues from m-commerce is \$6.86 billion in 2003 and expected to reach \$554.37 billion in 2008 (Wireless Week, 2004).

Especially, mobile financial services provide convenience and promptness to customers along with a cost-saving benefit. With this reason, banks are interested in expanding their market through mobile services. Traditional, branch-based retail banking remains the most widespread method of conducting banking transactions in South Korea and other countries. However, mobile and wireless technology is rapidly changing the way personal financial services are designed and delivered. For several years, commercial banks in South Korea have tried to introduce mobile banking systems to improve their operations and reduce costs. Despite all the efforts aimed at developing better and easier mobile banking systems can easily remain unnoticed by customers, or are seriously under-used despite their availability. In 2004 in South Korea, according to statistics from the Bank of Korea, there were 7,287 million subscriptions to mobile phones. However, less than 1.5% of banking transactions in South Korea were conducted through mobile handset. Mobile banking services are still in their infancy, leaving a great deal of room for development. There is a need therefore, to understand users' acceptance of mobile banking and to identify the factors affecting their intentions to use mobile banking.

## Conceptual Development

### Perceived Risk

Perceived risk is commonly thought of as felt uncertainty regarding possible negative consequences of using a product or service. It has formally been defined as "a combination of uncertainty plus seriousness of outcome involved" (Bauer, 1967), and "the expectation of losses associated with purchase and acts as an inhibitor to purchase

behavior” (Peter and Ryan, 1976). Perceived risk has been captured with Likert scales measuring the perception of dangerous events occurring or the presence of the attribute inherent in the service.

#### **Facets of Perceived Risk**

Cunningham (1967) identified two major categories of perceived risk-performance and psychosocial. He broke performance into three types- economic, temporal, effort; and broke psychosocial into two types- psychological and social. Cunningham (1967) further typified perceived risk as having six dimension-(1) performance, (2) financial, (3) opportunity/time, (4) safety, (5) social and (6) psychological loss. He also posited that all risk facets stem from performance risk. A rich stream of consumer behavior literature supports the usage of these risk facets to understand consumer product and service evaluation and purchases. The e-services research context does not incur any threat to human life (Featherman and Pavlou, 2003); therefore, measure of (physical) safety risk were not included in this study. A newly developed risk facet tapping privacy concerns that replaces this safety risk will be introduced below.

Jacoby and Kaplan (1972) inferred from Bauer’s seminal work (1967) an overall measure of perceived risk. He theorized it as consisting of several independent varieties of risk after as risk “tradeoff” behavior occurred. For example, a large automobile may reduce physical (safety) risk but increase financial risk. This measure of overall perceived risk is also tested here. Bellman et al.(1999) reported on the importance of time considerations and found it the significant predictor to on-line buying behavior. Their research found that “harried” consumers with less time were more likely to purchase over the Internet in order to save time. The current research similarly proposes that consumers are very time oriented and concerned about potential risk of “wasting time” implementing, learning how to use, and troubleshooting a new e-service. These time-conscious consumers likely guard against the possible loss of time risk, and are less likely to adopt the e-service that they consider, as have high switching, setup and maintenance costs.

Privacy risk may be particularly salient for the e-payments product category. Recent research results have indicated that people concern for the theft of their private information, or simply its misuse by the company collecting it (Aladwani, 2000; Ramanujan, 2002; Sathye, 1999). Thus privacy risk as a common concern that inhibited adoption, items tapping this phenomenon were developed, grouped and modeled as a deterrent to perceived usefulness and adoption.

#### **Trust (Online)**

Online trust share similar characteristics to those of offline trust, but there are some important distinctions that are unique in an online environment. These distinctions can serve as starting points for seeking a deeper understanding of the nature of trust in and online context. Gefen (2002) examined trust from a multi-dimensional perspective. According to the researcher, the specific beliefs of integrity, ability, and benevolence were seen as antecedents to overall trust. In the case of e-commerce, integrity was the belief that the online merchant adhered to stated rules or kept promises. Ability was the belief about the skills and competence of the online merchant to provide good quality products and services. Benevolence was the belief that the online merchant, aside from wanting to make legitimate profits, wanted to do good to the customer without regard to making a sale.

Based on the literature from multi-disciplines, Kim, Song, Braynov and Rao (2001) investigated the determinants of online trust and divided the determinants into six dimensions, namely information contents, product, transaction, technology, institutional and consumer-behavioral dimensions. These dimensions, which were further broken down into many sub-dimensions or properties, formed a theoretical framework of online trust, covering the different stages that a consumer went through to complete an online transaction. In differing from most researchers Kim et al.(2001) proposed that the consumer could perceive trust before, during or after the online transaction. The researchers further concluded that different determinants of trust were associated with different stages of the transaction.

With the increasingly high penetration rate of Internet application, people are anxious about the diverse type of risks presented when engaging in online activities or transactions. When customers are uncertain about product quality, brand and online services they may worry about an unjustifiable delay in product delivery, providing payment without receiving the product and other illegal activities and fraud (Pavlou, 2002).

Credit ratings, bank balances and financial data could be changed without the owner knowing during online transactions. Some users perceive potential risk from immature technology. Other hesitates before trusting

online transactions and other activities. The reliability of online transactions is still far from perfect. Cognitive and affective factors are important variable that prevent people from trusting online service.

### **Technology Acceptance**

A growing body of academic research is focused on examining the determinants of computer technology acceptance and its utilization (Davis, 1989; Davis et al., 1989; Mathieson, 1991; Moore and Benbasat, 1991; Taylor and Todd, 1995). Among the different models that have been proposed, the Technology Acceptance Model (TAM) (Davis, 1989; Davis et al., 1989), adapted form the Theory of Reasoned Action (TRA)(Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), appears to be the most widely accepted among information systems researchers. The main reason for its popularity is perhaps its parsimony, as well as its wealth of recent empirical support (Agarwal and Prasad, 1999). While the TRA is a general theory of human behavior, the TAM is specific to IS usage (Mathieson et al., 2001). The TAM posits that a user's adoption of a new information system is determined by that user's intention to use the system, which in turn determined by the user's beliefs about the system. The TAM further suggests that two beliefs-perceived usefulness and perceived ease of use-are instrumental in explaining the variance in users' intention. Perceived usefulness is defined as the extent to which a person believes that using a particular system will enhance his or her job performance, while perceived ease of use is defined as the extent to which a person believes that using a particular system will be free of effort. Among these beliefs, perceived ease of use is hypothesized as a predictor of perceived usefulness.

Information systems researchers have investigated and replicated the TAM, and agree that it is valid in predicting the individual's acceptance of various corporate IT systems (Adams, Nelson and Todd, 1992; Chin and Todd, 1995; Doll, Hendrickson and Deng, 1998; Segars and Grover, 1993). However, the TAM's fundamental constructs do not fully reflect the specific influences of technological and usage-context factors that may alter the users' acceptance (Moon and Kim, 2001). As Davis (1989) noted, future technology acceptance research must address how other variables affect usefulness, ease of use and user acceptance. Therefore, perceived ease of use and perceived usefulness may fully explain behavioral intentions towards the use of mobile banking, necessitating a search for additional factor that can better predict the acceptance of wireless Internet banking. Specially, we focus our attention on the perceived risk, usefulness and trust that affect the adoption of wireless Internet banking.

### **Hypotheses**

Stated in formal fashion, our study tests 7 hypotheses:

- H1: Perceived risk comprises the facets of performance, financial, time, psychological, social, privacy.
- H2: Perceived risk has a negative effect on trust.
- H3: Perceived risk has a negative effect on the adoption of wireless Internet banking.
- H4: Perceived risk has a negative effect on the perceived usefulness.
- H5: Perceived usefulness has a positive effect on trust.
- H6: Trust has a positive effect on the adoption of wireless Internet banking.
- H7: Perceived usefulness has a positive effect on the adoption of wireless Internet banking.

### **Research Model**

Based on these arguments, our study using TAM(Technology acceptance model) identifies factors influencing mobile banking service adoption. The constructs of perceived usefulness and behavior intention to use were adopted from TAM. Two other variables, perceived risk and trust, were also integrated into the model, as depicted in Fig. 1.

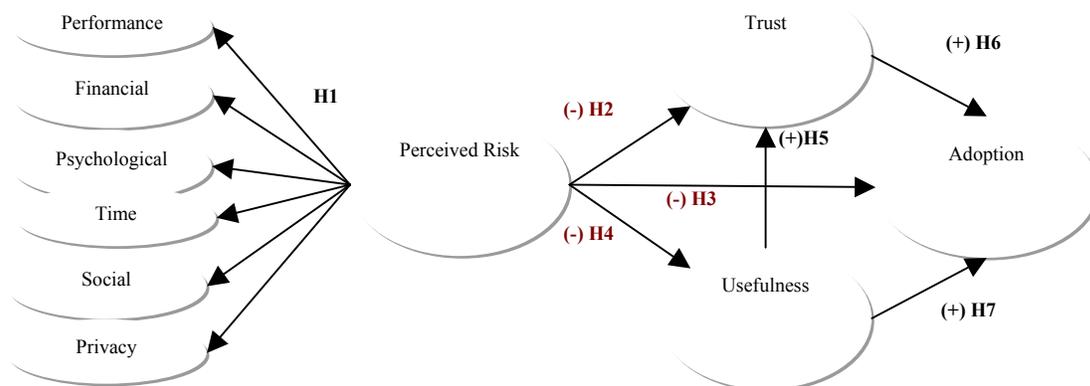


FIGURE 1. PROPOSED RESEARCH MODEL FOR WIRELESS MOBILE BANKING

## Research Methodology

### Measurement Development

Previous research was reviewed to ensure that a comprehensive list of measures were included. Those for perceived usefulness, behavioral intention to use were adapted in our model from previous studies on TAM (Davis, 1989). The construct for perceived risk was adapted from the studies of Featherman and Pavlou. And the trust was adapted from the studies of Kim and Prabhakar (2000).

The survey questionnaire consisted of two parts. The first recorded the subject's demographic information. The second recorded the subject's perception of each variable in the model. The demographic variables assessed were gender, age, level of education and the purchase experience using a cell phone. The second section asked each subjects to indicate his or her degree of agreement with each item. Data were collected using a seven point Likert-type scale (1-7), with anchors ranging from "strongly disagree" to "strongly agree" were used for all question, except for the items measuring demographic variables. Pre-testing of these measures was conducted through selected consumers from the wireless internet banking field, as well as experts in the e-commerce research area. The items were modified to make them relevant within the context of wireless internet banking.

### Data Collection Procedure

The data for this study were made available via a Web survey of Internet banking uses. We created a site for the Web survey. Then, Internet banking users of Korea were requested to participate in the survey. In total, 179 cases were gathered over about 1.5 weeks, from December 11 to December 20, 2003. There are no missing data in the sample because participants could not submit their responses with missing values.

Sixty-seven percent of the respondents were male, and 33 percent were female. Almost all respondents were in their twenties or thirties. About thirty-five percent of the respondents had experience with wireless e-commerce for over 1 year. Detailed descriptive statistics relating to the respondents' characteristics are shown in Table 1.

TABLE 1: DESCRIPTIVE STATISTICS OF RESPONDENTS' CHARACTERISTICS

gender	n(%)	wireless e-commerce experience	n(%)
Male	119(66.48%)	Used(>1)	64(35.75%)
Female	60(33.51%)	Never used before	115(64.24%)
Age	n(%)	education	n(%)
20~25	17(9.49%)	Senior high school	10(5.58%)
26~30	57(31.84%)	Some college	28(15.58%)
31~35	28(15.64%)	College degree	64(35.75%)
35~40	74(41.34%)	Graduate school	49(27.37%)
40~45	3(1.67%)	Graduate(above)	28(15.64%)

**Reliability**

The instruments were initially examined to establish the reliability of scale. The Cronbach's alpha coefficients range from 0.609 to 0.912 that exceed recommended values of 0.5(Hair et al., 1998; Nunnally, 1978). These values show good internal consistency among scales employed for the present study. These alphas equal .85, .91, .69, .79, .85, .60, .61, .89, .86 and .82 for perceived risk(performance-financial, psychological, time, social, privacy), trust(bank, telecom corporation, wireless mobile banking), usefulness and adoption, respectively (Table 2).

**Validity**

To ensure content validity, a through examination was made of the relevant literature. To further reduce the possibility of non-random errors, a pretest was conducted using a group of 15 graduate Marketing students to review the questionnaire for validity (measuring what is intended), completeness (including all relevant variable items) and readability. Several questionnaire items were reworded based on the pretest.

Prior to testing our hypotheses, the measures were subjected to a series of validity checks. First, the different multi-item scales were evaluated on the basis of item-to-total correlations and exploratory factor analysis. We eliminated 2 items, originally hypothesized to measure time risk and privacy risk, on the basis of this analysis (Table 2). Following this initial analysis, the item set was subjected to confirmatory factor analysis to establish unidimensionality.

TABLE 2\_1: EXPLORATORY FACTOR ANALYSIS (PERCEIVED RISK)

Item <sup>i</sup>	f1	f2	f3	f4	F5	cronbach's $\alpha$	eigen value	% of variance
P1	.603					.845	6.689	25.554
P2	.703							
P3	.483							
P4	.739							
F1	.500							
F2	.809							
F3	.671							
F4	.760							
PS1		.589				.912	2.281	13.911
PS2		.595						
PS3		.481						
T2			.681			.699	1.808	12.525
T3			.718					
T4			.479					
S1				.601		.790	1.438	10.437
S2				.537				
SE1					.756	.850	1.112	7.719
SE2					.713			
SE3					.593			

TABLE 2: EXPLORATORY FACTOR ANALYSIS(FINAL RESULTS)

Parameter		Initial items	Final items	cronbach's $\alpha$
Perceived risk	Performance-Financial	8	8	.8455
	Psychological	3	3	.9121
	<b>Time risk</b>	<b>4</b>	<b>3</b>	.6994
	Social risk	2	2	.7906
	<b>Privacy/Security</b>	<b>4</b>	<b>3</b>	.8503
trust	bank	6	6	.6098
	Telecom corporation	5	5	.6154
	Wireless internet	5	5	.8937
usefulness	Perceived usefulness	4	4	.8698
adoption	Wireless mobile banking	2	2	.8243

The proposed research model was evaluated using structural equation modeling (SEM). The data obtained were tested for reliability and validity using confirmatory factor analysis (CFA). The CFA was computed using the LISREL software. The measurement model test presented a good fit between the data and the proposed measurement model. We show the results in Table 2, Table 3. Whereas the overall chi-square statistic for the model is significant ( $\chi^2=469$ ,  $p<.005$ ), as expected given the sample size, the other fit indices (comparative fit index[CFI]=.869) represent evidence of good model fit. Thus the measurement model has a good fit with the data, based on assessment criteria such as RMR (.004), GFI (.931) and AGFI (.878).

TABLE 3: CONFIRMATORY FACTOR ANALYSIS

Parameter		ML Estimate( $\lambda$ )	S.E.	T-Value
Performance-Financial Risk	P1	1.00		
	P2	0.62	0.054	11.42
	P3	0.14	0.060	2.38
	P4	0.51	0.056	9.06
	F1	0.17	0.060	2.80
	F2	0.49	0.057	8.70
	F3	0.31	0.059	5.22
	F4	0.48	0.057	8.44
Psychological Risk	PS1	1.00		
	PS2	0.95	0.045	21.37
	PS3	0.67	0.053	12.51
Time risk	T2	1.00		
	T3	0.34	0.059	5.75
	T4	0.27	0.059	4.56
Social risk	S1	1.00		
	S2	0.66	0.053	12.37
Privacy risk	SE1	1.00		
	SE2	0.73	0.052	14.15
	SE3	0.56	0.055	10.15

## Results

Perceived risk has been theorized as comprising all of these facets. Results presented in Tab. 4 were promising, indicated a good fit to the data, and partly supported H1.

Hypotheses 2, 3 and 4 examined the impact of one customer's belief on another: perceived risk on trust, perceived risk on the adoption of wireless Internet banking, and perceived risk on perceived usefulness. Perceived risk had a significant negative impact on trust ( $\beta=-.597$ ,  $t= 12.498$ ,  $P<0.01$ ). Perceived risk has a significant negative

impact on the adoption of wireless Internet banking ( $\beta=-.047$ ,  $t= -2.940$ ,  $P<0.05$ ). The impact of perceived risk on perceived usefulness was not significant. We therefore accept hypotheses 2 and 3.

In hypothesis 5, we investigated the impact of perceived usefulness on trust. The usefulness towards using wireless Internet banking had a significant impact on trust ( $\beta=.055$ ,  $t= 2.035$ ,  $P<0.05$ ). Therefore hypothesis 5 is supported.

Hypotheses 6 and 7 examined the impact of the customer’s belief on the attitude toward using wireless Internet banking. It is observed that trust had an impact on the customer’s attitude towards using wireless Internet banking at the 0.01 significant level ( $\beta=.091$ ,  $t= 2.552$ ,  $P<0.01$ ). As suggested by the original TAM, the positive impacts of perceived usefulness of use ( $\beta=-.523$ ,  $t= 21.918$ ,  $P<0.01$ ) on the attitude towards using wireless Internet banking were confirmed here. Hence, we accept hypotheses 6 and 7.

TABLE 4: HYPOTHESIS TEST RESULTS

	path	ML estimate	S.E.	T-Value
H1	-	-	-	-
H2	Perceived Risk → Trust	-.5970	.0478	12.498**
H3	Perceived Risk → Adoption	-.0470	.0308	-2.940*
H4	Perceived Risk → Usefulness	.0464	.0308	1.508
H5	Usefulness → Trust	.0557	.0248	2.035*
H6	Trust → Adoption	.0910	.0329	2.552**
H7	Usefulness → Adoption	.5230	.0239	21.918**
** $\alpha=.01$ , * $\alpha=.05$				

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### End Notes

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<sup>i</sup> P=perceived risk, F=financial risk, PS=psychology, T=time, S=social, SE= security

# E-Commerce Performance Measurement: Modified Balanced Scorecard Perspective

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## Abstract

Due to the intangible and indirect nature of e-commerce benefits, it is very hard to measure the contribution of e-commerce to a firm's competitive advantage. Based on the modified Balanced Scorecard (BSC) framework, this study suggests a methodology to measure the contribution of e-commerce to a firm's performance. Firstly, this study categorizes critical success factors (CSFs) for e-commerce success. While reviewing and categorizing CSFs appeared in the literature, this study shows the way in which Kaplan and Norton's BSC framework is modified to accommodate the effect of e-commerce on a firm's business processes. Secondly, this study empirically investigates into what components consist of each perspective suggested in the modified BSC. Then, based on the questionnaire survey this study analyzes causal relationships among components across five perspectives to help practitioners to trace down how to get the desired performance.

## Introduction

Electronic commerce and the Internet dramatically affected the conduct of business, and changed communication patterns between the firm and its customers. Moreover, e-commerce is known to have a pervasive influence on the firm's value chain. Through the e-commerce system, a firm may link one activity with others, both within the firm and with outside suppliers, channels, and customers. Most organizations, however, are concerned about if there are benefits from e-commerce requiring much investment in terms of people, resource, and time. This situation leads to an increased need for useful measurements of e-commerce performance. There have been many studies on methodologies of how to measure the performance of e-commerce in a firm. However, there are few methodologies for practitioners to adopt in the real world because most methodologies have not accommodated the intangible and indirect nature of e-commerce benefits.

Providing the integrated framework which can be adopted in the real world, this study adopts and modifies the Kaplan and Norton (1992)'s Balanced Scorecard framework to suggest a methodology to measure how e-commerce is affecting a firm's business processes. Firstly, this research developed a conceptual model incorporating elements relevant to both e-commerce functions and general business processes for assessing e-commerce benefits based on the critical success factors (CSFs) for e-commerce success. Secondly, this study tests this model using survey data from 225 firms in the various industry sectors. The data analysis is carried out by structural equation modeling (SEM).

## Literature Review

E-commerce is rapidly becoming an integral part of the many different ways organizations do business and is therefore an area of strategic concern to most organizations (Hasan and Tibbits, 2000). Gaining and sustaining a competitive advantages and operational effectiveness by means of e-commerce requires a measurable tool. Grembergen and Amelinckx (2002) conjecture that many e-business projects have failed because there have been no tool to monitor how e-business projects are associated with a firm's business processes. As there is not much historical data and experience for managers to draw upon when developing or applying metrics, and many economic benefits of e-commerce projects are seen as difficult to measure (Epstein, 2004), measuring such an association between e-commerce and business processes can be a daunting challenge. Further, because of the intangible,

indirect, and strategic nature of e-commerce benefits, it is difficult to measure the contribution of e-commerce (Grembergen and Amelinckx, 2002; Brown, 1994; Giaglis and Paul, 1999).

To gain a balanced view on how e-commerce is affecting business processes, this research adopts the Balanced Scorecard (BSC) framework developed by Kaplan and Norton (1992). The BSC framework overcomes the limitations of the metrics discussed earlier. Further, it can help avoid the misleading signals for continuous improvement and innovation obtained from financial measures alone (Kaplan and Norton, 1992; Tiwana and Ramesh, 1999).

There have been several studies based on BSC framework for the measurement of e-commerce performance (e.g., Tiwana and Ramesh, 1999; Hasan and Tibbits, 2000; Grembergen and Amelinckx, 2002; Epstein, 2004). Hasan and Tibbits (2000) proposed an e-commerce scorecard using a modification of Martinsons et al. (1999)'s IS BSC and suggested how the basic concepts and philosophy of the BSC can be retained in its adaptation to the strategic management of e-commerce. Grembergen and Amelinckx (2002) proposed a generic E-business BSC in order to measure and manage E-business projects, using an extension of IT scorecard (Grembergen and Bruggen, 1997; Grembergen and Timmerman, 1998), and described its development and implementation. Epstein (2004) developed an e-commerce metric in order to monitor the cause and effect relationships evidenced in the e-commerce causal linkage model. While these studies analyze various aspects of e-commerce, the empirical evidence of the causal relationships among perspectives and its elements appeared in BSC has been scant and primarily limited to a specific company.

Rockart (1997) defines CSFs as the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for an organization. Veen-Dirks and Wijn (2002) devise a framework which combines the BSC and CSFs. This method based on market-oriented CSFs can help managers to effectively deal with the tension between strategy implementation and strategy formulation. The CSFs method and the BSC are therefore complementary and can supplement and support each other in an integrated performance management system.

After reviewing the literature, this study categorizes the CSFs for e-commerce success based on the Kaplan and Norton (1992)'s BSC perspective as summarized in Table 1. While reviewing and categorizing CSFs appeared in literature, this study finds that Kaplan and Norton's BSC framework needs to be modified and extended because e-commerce functions and technology aspects were not classified by generic BSC perspectives.

TABLE 1. CRITICAL SUCCESS FACTORS FOR E-COMMERCE

<b><u>Financial Perspective</u></b>	<b><u>Internal Process Perspective</u></b>	<b><u>Web Application Perspective</u></b>
<ul style="list-style-type: none"> <li>• Cost/benefits/• Reduced costs</li> </ul>	<ul style="list-style-type: none"> <li>• Process improvement/• Integration</li> <li>• Information management /• Control</li> <li>• Fulfillment process</li> </ul>	<b><i>Functionality View</i></b> <ul style="list-style-type: none"> <li>• System quality/• Web site design(Interface)</li> <li>• Navigation/ • Search</li> <li>• Flexibility and Speed/• Security</li> <li>• Information quality/• Content</li> <li>• Playfulness/• System use</li> <li>• Easy to use (Convenience)</li> <li>• Service quality/• Online payment</li> </ul>
<b><u>External Relationship Perspective</u></b> <b><i>Customer View</i></b> <ul style="list-style-type: none"> <li>• Customer acceptance</li> <li>• Customer satisfaction</li> <li>• Customer acquisition and retention</li> <li>• Product choice/ • Price sensitivity</li> <li>• Effective Marketing of the site</li> <li>• Brand image</li> </ul>	<b><u>Future Readiness Perspective</u></b> <b><i>Human View</i></b> <ul style="list-style-type: none"> <li>• Skills of workers /• Training program</li> </ul> <b><i>Organization View</i></b> <ul style="list-style-type: none"> <li>• Organizational culture</li> <li>• Organizational readiness</li> <li>• Executive leadership/• Commitment</li> <li>• Top management support/</li> <li>• Setting strategic goals</li> <li>• Integrating Internet with marketing strategy</li> <li>• Implementation team skills</li> </ul>	<b><i>Technology View</i></b> <ul style="list-style-type: none"> <li>• Technological Infrastructure/• Compatibility</li> <li>• Availability of E-business system</li> <li>• Internal stability</li> </ul>
<b><u>Supplier/Partner View</u></b> <ul style="list-style-type: none"> <li>• Collaboration/ • Trust/• Partnership</li> <li>• Successful relationships</li> <li>• Interaction• Community</li> <li>• Internet ecology</li> </ul>		

## Research Model

This study develops a modified BSC framework to assess e-commerce benefits based on the CSFs summarized in Table 1. The modified BSC framework for e-commerce is composed of five perspectives listed below with its definition:

- Financial Perspective: “If we succeed, how will we look to our shareholders?”
- External Relationship Perspective: “To achieve our vision, how must we look to our external stakeholders (customers, suppliers/partners)?”
- Internal Process Perspective: “To satisfy our external stakeholders, which processes must we excel at?”
- Future Readiness Perspective: “To prepare for the future, how must our organization learn and improve?”
- Web Application Perspective: “To achieve e-commerce success, how must our channels look to our e-commerce users?”

To evaluate both overall e-commerce performance and the specific aspects of e-commerce that lead to revenue enhancement or cost savings, this study constructs a conceptual model of causal relationships among elements of the modified BSC as described in Fig. 1.

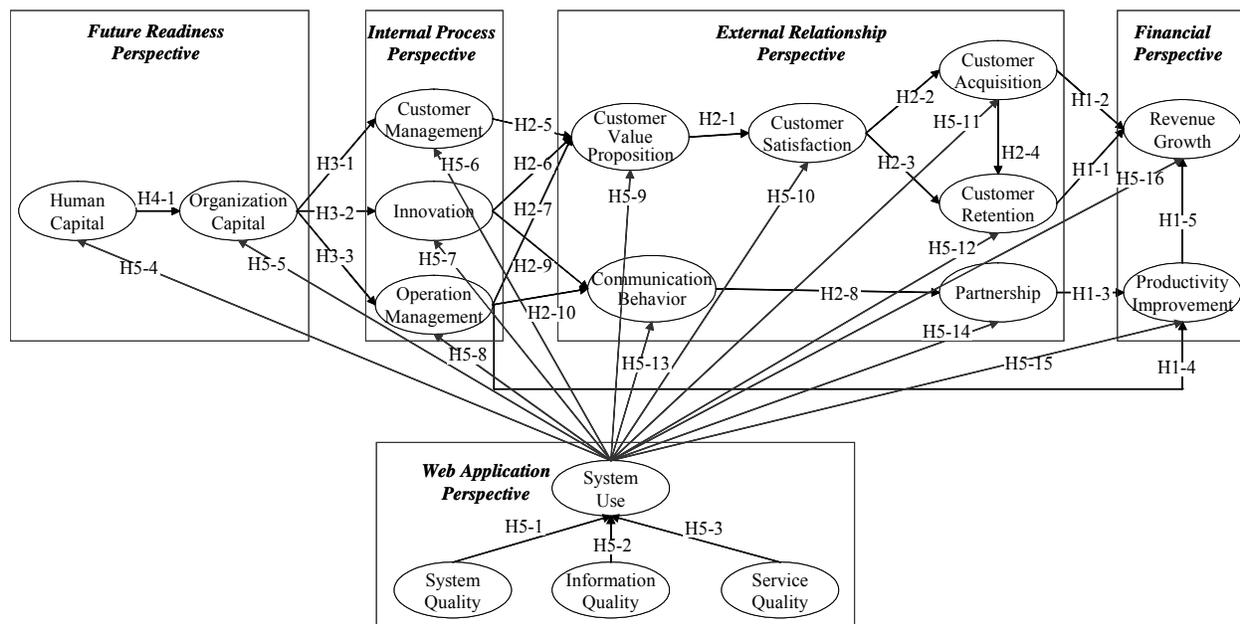


FIG. 1. CONCEPTUAL MODEL

### Hypotheses within Each Perspective

The financial perspective defines the long-run objectives of the e-commerce usage. The financial performance measurements indicate whether the firm’s strategy, implementation, and execution are contributing to bottom-line improvement (Kaplan and Norton, 1992). In our model, financial perspective has two components: revenue growth; productivity improvement. We propose that the cost reduction and asset utilization may enhance short-term revenue (*H1-5*).

E-commerce enables interdependent relationships between the firm and its external entities: customer, supplier, and partner (Hasan and Tibbits, 2000). Thus the quality of supplier and partner relationships must be measured. In our model, external relationship perspective includes both customer view and supplier/partner view. In terms of customer view, several researches (e.g., Bruhn, 2003; Bowman and Narayandas, 2004) have shown that product and service’s attributes affects customer satisfaction (*H2-1*). Following many researchers’ arguments (e.g.,

Kalpan and Norton, 1996; Mohr and Spekman, 1994, Morgan and Hunt, 1994), we propose that customer satisfaction has a positive relationship with customer acquisition (**H2-2**), and customer retention (**H2-3**). We also propose customer acquisition is positively associated with customer retention (**H2-4**). In terms of supplier/partner view, we propose that communication behavior between the firm and its supplier, partner is positively related with the quality of partnership (**H2-8**).

The traditional learning and growth perspective emphasizes how well the firm is preparing for meeting the challenges of the future through leveraging its organizational and human assets (Epstein and Wisner, 2001). These intangible assets seldom affect financial performance directly (Kaplan and Norton, 2004). In our model, future readiness perspective has two components: human capital; organization capital. In terms of future readiness perspective, higher levels of human capital may be positively associated with greater levels of the organization capital (**H4-1**).

To execute e-commerce applications, companies need the right information, infrastructure, and support services (Turban et al., 2004). In our model, web application perspective was classified four components using a modification of the DeLone and McLean (1992)'s IS Success Model: system quality; information quality; service quality; system use. In terms of web application perspective, some researchers (Molla and Licker, 2001; DeLone and McLean, 2003; DeLone and McLean, 2004) found that system use is affected by system quality (**H5-1**), information quality (**H5-2**), and service quality (**H5-3**).

**Hypotheses among Components across Perspectives**

Based on many researchers' arguments (e.g., Keaveney, 1995; Gemme, 1997; Reinartz et al., 2005; Ellram, 1991; Stuart, 1993; Scott et al., 1994), we propose that there is a positive relationship between customer retention and revenue growth (**H1-1**), between customer acquisition and revenue growth (**H1-2**), between partnership and cost reduction (**H1-3**), and between operational excellence and cost structure improvement (**H1-4**). Based on the argument of Soteriou and Zenios (1999) and Bowman and Narayandas (2004), we propose that customer management, innovation, and operation management are positively related with customer value proposition and communication behavior (**H2-5, H2-6, H2-7, H2-9 and H2-10**). Between future readiness and internal process perspective, some researchers (Patterson et al., 2004; Carmeli and Tishler, 2004) examined the relationships the relationships between organizational capital and internal process (**H3-1, H3-2, and H3-3**).

Web-application is known to bring much benefit across perspectives appeared in BSC (Zhu and Kraemer, 2002; Lu, 2003; Mogollon and Raisinghani, 2003; Zhuang and Leader, 2003; Zhu et al., 2004; Straub et al., 2004). We categorize those benefits by each perspectives viewpoint as summarized in Table 2.

TABLE 2. E-COMMERCE BENEFITS

Perspective	E-commerce Benefits		
Financial	<ul style="list-style-type: none"> <li>• Reduced Operating Costs</li> <li>• Increased Sales</li> </ul>	<ul style="list-style-type: none"> <li>• Increased Productivity</li> <li>• Increased Profit Margin</li> </ul>	<ul style="list-style-type: none"> <li>• Increased Revenue Per Employee</li> <li>• Improving Asset Management</li> </ul>
External Relationship	<ul style="list-style-type: none"> <li>• Increasing Services to Customers</li> <li>• Market Expansion</li> <li>• Increased Customer Base</li> <li>• Customer Satisfaction</li> <li>• Customer Retention</li> </ul>	<ul style="list-style-type: none"> <li>• Customer Acquisition</li> <li>• Potential for Increasing Customer Knowledge</li> <li>• Alternative Communication Channel to Customers</li> </ul>	<ul style="list-style-type: none"> <li>• Enhancing Perceived Company Image</li> <li>• Reducing Transaction Costs with Business Partners</li> <li>• Improving Coordination with Business Partners or Suppliers</li> </ul>
Internal Process	<ul style="list-style-type: none"> <li>• Inventory Management</li> <li>• Internal Process Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Improving Production Planning</li> <li>• Back-end Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Improving Resource Control</li> <li>• Reducing Workflow</li> </ul>
Future Readiness	<ul style="list-style-type: none"> <li>• Increasing Employee Productivity</li> <li>• Employee Retention</li> </ul>	<ul style="list-style-type: none"> <li>• Managing Know-how</li> </ul>	<ul style="list-style-type: none"> <li>• Improving Employee Morale</li> </ul>

Although many researchers have suggested the relationship between web-application and other perspectives of BSC, most research has been either descriptive or theoretical/speculative. There is a lack of empirical evidence to measure the effect of e-commerce effect (whether direct or indirect) on the overall business performance. Thus this study attempts to bridge the gap that exists between theoretical benefits and actual benefits in the real world by investigating hypotheses (*H5-4 ~ H5-16*).

## Research Design

### Item and Scale Development

To empirically investigate the conceptual model described in Figure 1 and the associated hypotheses, a survey questionnaire was designed on the basis of the literature review. The questionnaire has been refined through several pilot tests in terms of terminologies and sentences. Each item on the questionnaire was reviewed by a panel of IS and business managers, as well as IS academics, to obtain their views on which items are appropriate to include. This version of the e-commerce and business performance measurements contain 84 items: 16 for the web application; 11 for the future readiness; 12 for the internal process; 14 for the customer relationships; 20 for the supplier and/or partner relationships; and 11 for the financial performance. A five-point Likert-type scale was used for all of the items.

### Sample Demographics

In order to select the company sample set, a web exploration was first made to investigate the adoption of e-commerce websites. Among them, 1,000 companies were randomly selected. In order to revise questionnaire, we carried out structured interviews with five companies. A total of 229 questionnaires out of the 1,000 distributed were returned, giving response rate of 22.9 percent. After removing incomplete answer, the final dataset used for the analysis is of 225 data. Summary information regarding the size and industry distribution of the sample is represented in Table 3.

TABLE 3. SUMMARY OF FIRMS IN THE SAMPLE

Industry	Number of	Percentage	Employee	Number of	Percentage
	Firms			Firms	
Manufacturing	96	42.7%	< 100	106	47.1%
Finance	8	3.6%	100-300	18	8.0%
Distributor	32	14.2%	301-500	18	8.0%
Construction	5	2.2%	501-1,000	24	10.7%
Telecommunications	13	5.8%	1,001-5,000	37	16.4%
Service	49	21.8%	> 5,000	22	9.8%
Public	7	3.1%			
Missing	15	6.7%			

## Data Analysis

### The Measurement Model

Exploratory factor analysis (EFA) was first conducted to check if the proposed factor structures are indeed consistent with the actual data. The factor structures suggested by the EFA match the one proposed in the research model. Next, confirmatory factor analysis (CFA) was conducted to check the reliability and validity of the measurement model. In this measurement model, no unidirectional path was specified between any latent variables. This measurement model was estimated using LISREL 8.54.

### Instrument Validation

This research assessed construct reliability, convergent validity, discriminant validity. The measurement properties are reported in Table 4.

TABLE 4. SUMMARY OF THE MEASUREMENT MODEL

Latent Construct	Items	Standard Loading	Composite Reliability	Variance extracted	Latent Construct	Items	Standard Loading	Composite Reliability	Variance extracted
System Quality (SYSQ)	4	0.731; 0.750; 0.813; 0.602	0.817	0.530	Customer Satisfaction (SATI)	3	0.768; 0.896; 0.879	0.886	0.722
Information Quality (INFQ)	4	0.737; 0.788; 0.816; 0.790	0.864	0.614	Customer Acquisition (ACQU)	3	0.863; 0.926; 0.631	0.854	0.667
Service Quality (SERQ)	4	0.823; 0.863; 0.825; 0.730	0.885	0.659	Customer Retention (RETE)	1	NA	NA	NA
System Use (SYSU)	4	0.903; 0.926; 0.818; 0.660	0.899	0.694	Communication Quality (COM1)	4	0.917; 0.902; 0.889; 0.883	0.943	0.806
Employee Skill (HUM1)	3	0.831; 0.857; 0.835	0.879	0.707	Information Sharing (COM2)	4	0.830; 0.772; 0.854; 0.853	0.897	0.685
Employee Knowledge (HUM2)	1	NA	NA	NA	Participation (COM3)	4	0.751; 0.844; 0.856; 0.909	0.906	0.709
Human Capital (HUMC)	2	0.928; 0.798	0.856	0.749	Communication Behavior (COMM)	3	0.796; 0.883; 0.947	0.909	0.770
Organizational Culture (ORG1)	3	0.808; 0.841; 0.849	0.872	0.694	Trust (PAR1)	4	0.851; 0.897; 0.905; 0.821	0.925	0.755
Alignment (ORG2)	2	0.954; 0.926	0.938	0.884	Commitment (PAR2)	4	0.780; 0.913; 0.891; 0.862	0.921	0.745
Teamwork (ORG3)	2	0.894; 0.888	0.885	0.794	Partnership (PART)	2	0.957; 0.876	0.914	0.842
Organization Capital (ORGC)	3	0.990; 0.740; 0.895	0.911	0.776	Customer Value Increasing (REV1)	2	0.918; 0.969	0.942	0.891
Operation Management (OPER)	4	0.703; 0.810; 0.806; 0.845	0.871	0.628	Market Extension (REV2)	3	0.763; 0.482; 0.774	0.720	0.471

Customer Management (CUST)	4	0.792; 0.909; 0.891; 0.823	0.916	0.731	Revenue Growth (REVE)	2	0.801; 0.921	0.853	0.745
Innovation (INNO)	4	0.830; 0.826; 0.848; 0.775	0.891	0.673	Cost Reduction (PRD1)	4	0.742; 0.605; 0.783; 0.566	0.772	0.463
Product/Service Attribute (PRO1)	4	0.782; 0.937; 0.904; 0.588	0.884	0.663	Asset Utilization (PRD2)	2	0.874; 0.963	0.916	0.846
Customer Relationship (PRO2)	3	0.862; 0.927; 0.910	0.927	0.810	Productivity Improvement (PROD)	2	0.889; 0.832	0.851	0.741
Customer Value Proposition (PROP)	2	0.865; 0.923	0.889	0.800					

NA: Because the variable is composed of a single item, no reliability and validity analysis is conducted.

The construct reliability measures the degree to which items are free from random error and therefore yield consistent results. In our measurement model (Table 4), all constructs have a composite reliability over the cutoff of 0.70, as suggested by Straub (1989). The construct validity is also tested for convergent and discriminant validity. Convergent validity is assessed by reviewing the *t* tests for the factor loadings (Thong et al., 1996; Barua et al., 2004). The discriminant validity is tested by comparing the variance extracted of each latent construct to the square of correlations between this construct and every other construct (Fornell and Larcker, 1981). The validity of all constructs and their indicators is also supported by the above tests. Therefore, on both theoretical and empirical grounds, the conceptualization of modified BSC construct seems justified.

#### The Structural Model

The structural model tested in the present study is shown in Figure 1. This model was estimated using LISREL 8.54. Table 5 lists several goodness-of-fit statistics to assess how the above-specified model can explain the observed data from three aspects: absolute fit, incremental fit, and model parsimony. This research examined five incremental fit indices: normed fit index (NFI), relative fit index (RFI), incremental fit index (IFI), non-normed fit index (NNFI), comparative fit index (CFI). The incremental fit indices are all above the conventional cutoff of 0.9 (Hair et al., 1998), suggesting an excellent model fit compared to a baseline model. As to the parsimonious fit, the normed  $\chi^2$  is below 2.0, the upper threshold suggested by Carmines and McIver (1981). Root mean square error of approximation (RMSEA) is below the typical cutoff value, 0.08. Hence, the overall model satisfied these recommended criteria.

In conclusion, the overall fit statistics, validity, and reliability measures collectively lend substantial support for confirmation of the proposed model. This also reflects the fact that the items have been pretested and refined over several rounds of data collection.

TABLE 5. FIT INDICES OF STRUCTURAL MODEL

Absolute fit			Incremental fit					RMSEA
$\chi^2$	df	$\chi^2 / df$	NFI	RFI	IFI	NNFI	CFI	
454.959	264	1.723	0.974	0.967	0.989	0.986	0.989	0.057

The results of estimating the structural model are presented in Figure 2. In the overall framework, most constructs are appeared to have a significant SMC. Thus, this study believes that the web application usage have significantly explained data variations for general business performance and its underlying dimensions. In the Figure 2, most paths, except the path linking from the system use to other constructs (H5-4 ~ H5-16), are significant and positive, supporting the corresponding hypotheses. Focusing on the relationship between web-application and other perspectives of BSC, a summary of hypotheses test is described in Table 6.

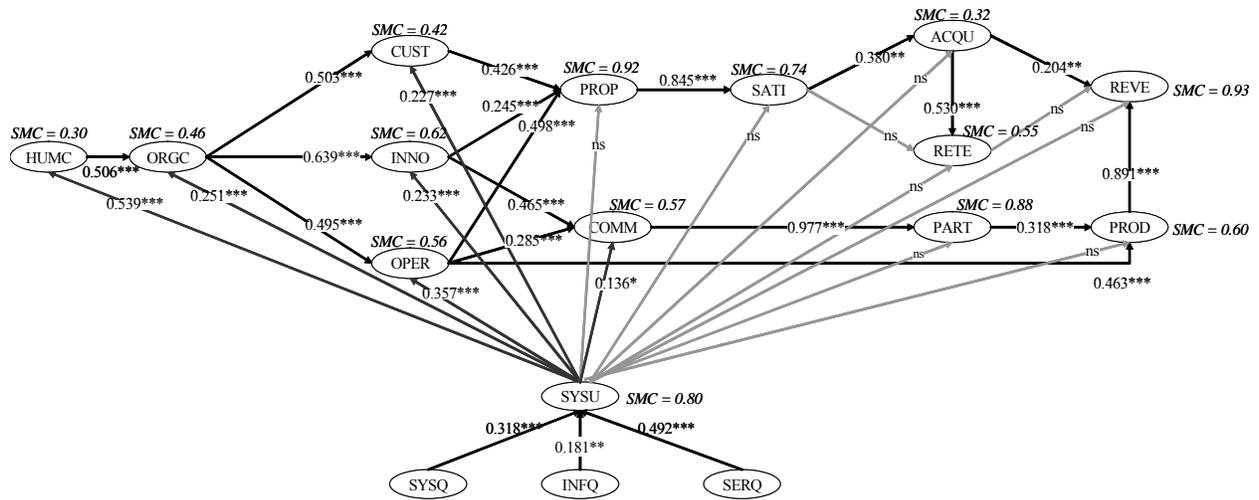


FIG. 2. STRUCTURAL MODEL RESULTS  
 Notes: SMC: squared multiple correlation. \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.10$ . ns:  $p > 0.10$ .

TABLE 6. SUMMARY OF THE STRUCTURAL MODEL

Hypotheses	Path Coefficient	Supported?	Hypotheses	Path Coefficient	Supported?		
H5-4	SYSU → HUMC	0.539***	Yes	H5-11	SYSU → ACQU	0.063	No
H5-5	SYSU → ORGC	0.251***	Yes	H5-12	SYSU → RETE	-0.071	No
H5-6	SYSU → CUST	0.227***	Yes	H5-13	SYSU → COMM	0.136*	Yes
H5-7	SYSU → INNO	0.233***	Yes	H5-14	SYSU → PART	-0.071	No
H5-8	SYSU → OPER	0.357***	Yes	H5-15	SYSU → REVE	-0.007	No
H5-9	SYSU → PROP	-0.021	No	H5-16	SYSU → PROD	-0.027	No
H5-10	SYSU → SATI	0.025	No				

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.10$ .

## Discussion, Limitations, and Future Research

To understand e-commerce benefits and its impact on general business performance, this research has empirically tested the modified BSC framework, as well as 35 hypotheses within that framework. Empirical analysis demonstrated several key findings, which are discussed below.

### Major Findings and Interpretations

With 20 out of 22 hypotheses, except the paths from web application perspective to other perspective (H5-4 ~ H5-16), supported, the empirical results provided strong overall validation for the modified BSC model. Overall this study finds strong support for the causal relationship among the four perspectives (financial, external relationship, internal process, and future readiness). This study also finds that internal process excellence generated through the organization capital.

Kaplan and Norton (1996) propose the causal relationship among the four generic perspectives. Norreklit (2000), however, indicate that the generic BSC has problems with some of its causal relationships. Moreover, Ittner and Larcker (2003) indicate that such assumptions are often half-baked or wrong. Heskett et al. (1994) also developed the service-profit chain for establishing relationships among employee satisfaction, customer satisfaction, customer loyalty, market share, and financial performance. However, there are few empirical evidences for these causal relationships. The empirical results in Figure 2 provide that the entire chain of cause-and-effect relationships was established through the generic four BSC perspectives. Thus, this study believes that the causal relationships pervaded four perspectives of modified BSC.

As shown in Table 6, within the modified BSC framework, the future readiness (H5-4 and H5-5) and internal process perspective (H5-6, H5-7 and H5-8) are appeared as the direct benefits of e-commerce usage, while external relationship (H5-9, H5-10, H5-11, H5-12, H5-13 and H5-14) and financial perspective (H5-15 and H5-16) are not appeared as the direct benefits of e-commerce usage. However, e-commerce usage's overall (direct and indirect) effect on external relationship and financial perspective is supported.

### Limitations and Conclusion

Using the BSC framework to investigate the e-commerce performance, this study integrated the general business performance and e-commerce functions. The integration provides a theoretical perspective to study the contexts and conditions under which e-commerce contributes to a firm's business performance. This study finds that the entire chain of cause-and-effect relationships are indeed established through the generic four BSC perspectives. Moreover, this study finds that the e-commerce usage directly affect human capital, internal process, communication behavior with firm's supplier/partner and indirectly affect external relationship and financial perspective. The empirical analysis provides a theoretical framework to understand how e-commerce is affecting general business performance (whether direct or indirect). This result will help bridge an existing gap in our understanding of expected and actual benefits of e-commerce usage.

This research is subject to some data-related limitations. First, although we have invested considerable effort in data collection, our data set is limited to the manufacturing sector (42.7 %) and small size firm (47.1 %). As such, the finding reported here cannot be generalization to other types of firms in other industries and large size firm. Second, firm performance data are self-reported and could potentially induce certain biases. However, several checks within the data collection process that multiple responses were used in data collection should work to reduce such biases.

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## **KEBIX: An E-Business Index Based on the Ser-M Model**

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### **Abstract**

For the systematic planning and implementation of e-business, an objective and quantifiable evaluation metric should be developed. Such an e-business evaluation methodology is a pre-requisite for the good e-business policy making of government as well as for the e-business decision and implementation of companies. Since 2002, Korea's Ministry of Commerce, Industry and Energy (MOCIE) have developed e-business Index. Based on the Ser-M model (Cho & Lee, 1998), a new paradigm of strategy theory, the E-business Index has five main areas for the evaluation of e-business of a company: 1) People, 2) Environment, 3) Resources & Infrastructure, 4) Process, and 5) Value. The survey result is analyzed using regression analysis, correlation analysis, and structural equation model. Especially, the structural equation analysis confirms some hypotheses of the Ser-M paradigm. In addition to the academic results, the E-Business Index study produces various and interesting business and policy implications such as supporting the efficient development of e-business strategy through the self-diagnosis of individual enterprise.

### **Conceptual Construction of the E-business Index**

For the systematic planning and implementation of e-business, an objective and quantifiable evaluation metric should be developed. Such an e-business evaluation methodology is a pre-requisite for the good e-business policy making of government as well as for the e-business decision and implementation of companies. Since 2002, Korea's Ministry of Commerce, Industry and Energy (MOCIE) has developed e-business Index, KEBIX (Korea E-Business Index) cooperating with Korea Institute of Electronic Commerce, The Federation of Korean Industries, and Steering Committee of E-Business Index.

The e-business index is based on the Ser-M model (Cho & Lee, 1998; Cho, Kim, and Rhee, 1998), which is a new paradigm of strategy theory. 'SER-M' is the abbreviation of the notions as follows:

- 1) Subject ('S') is the competence of major actors. It can be identified and compared with each actor's strength and weakness.
- 2) Environment ('E') is the influence of circumstances, which can be evaluated by their emerging forces as threats and/or opportunities.
- 3) Resources ('R') mean physical and mental resources, natural and cultural resources, which are the main capabilities of organization. So the actual and potential ability can be enumerated by these concrete variables related with.
- 4) Mechanism ('M') is the management system (as is the corporate governance) and the constraining variables (as is the regulation system) are the main sources of organizational culture and organizational development.

The four components of the KEBIX come from the four components of the Ser-M and the fifth component 'Value' is added. Therefore the index has the five main areas for the evaluation of e-business of a company (Figure 1): 1) People ('Subject' in Ser-M), 2) Environment ('Environment' in Ser-M), 3) Resources & Infrastructure ('Resources' in Ser-M), 4) Process ('Mechanism' in Ser-M), and 5) Value.

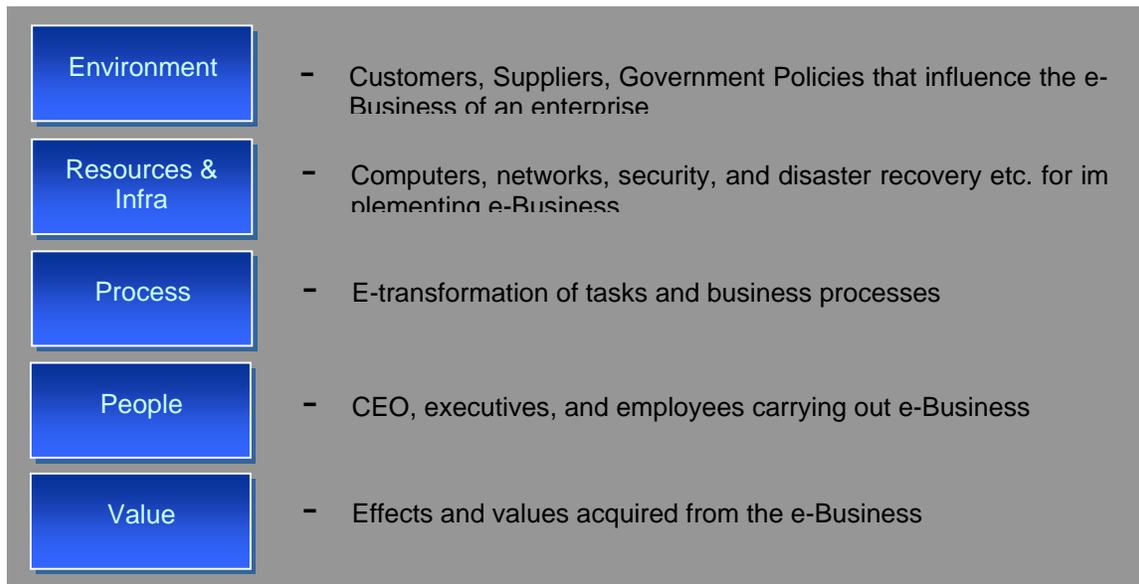


FIG. 1: COMPONENTS OF E-BUSINESS INDEX

The 'people' include the subcategories such as CEO, executives, and employee carrying out e-business. The CEO and the executive category measure the recognition and the will of CEO and executives on e-business respectively. The employee category measures the capability and support of e-business organization and personnel and the e-business mind and readiness of the whole organization and personnel.

The 'environment' includes the subcategories such as customers, suppliers, industry, and the government policies that influence the e-business of an enterprise. The customer environment measures the readiness and infrastructure of customers, the supplier environment measures the readiness and infrastructure of suppliers, the industry environment evaluates the related associations and leading companies, and the policy environment evaluates the legal & institutional environment.

The 'resources & infrastructure' measures IT investment (financial resources for e-business initiative), the implementation level of computers & networks, system/process/guideline for security & risk management, database & integration, and IT personnel & institution for implementing e-business.

The 'process' measures the e-transformation of tasks and business processes such as supply-side process (e-business in work processes for procurement), operation process (e-business in production and service development), sell-side process (the e-business in sales and customer management), and supportive process (the e-business in personnel/financial/intellectual management).

Finally, the 'value' means the effects and values acquired from the e-business. Therefore it includes overall value which means the value & benefit creation from e-business general and the value by process which means the value & benefit creation in primary activities. One thing to note is that the evaluation on the value is not included in the e-business index score, but employed for analyzing the relationship between e-business and its performance.

## Index Development and Survey

Based on the conceptual structure explained in the previous section, we develop the evaluation sheet which has 100 questions (Therefore the highest score is 100). The steering committee of KEBIX selected 11 industries (Costume, Petrochemistry, Steel, Mechanics, Electronics, Automobile, Construction, Distribution, Transportation, Telecom, and Finance industry) and 500 companies in the industries. The companies responded to the survey using email,

mail, and interview from 2002/08/01 to 2002/10/31. The 43.5% of responding companies have annual revenue from \$80M to \$400M and the 43.8% established after year 1980.

In order to derive the weights of the components, we use Delphi method and the expert opinions are integrated based on AHP (Analytical Hierarchy Process) technique. Table 1 shows the weights to calculate the e-business index. Since the processes of the firms are much different according to their industries, we derive the different set of weights for each industry as the right columns in Table 1.

TABLE 1: THE WEIGHTS FOR THE CONSTRUCTION OF THE E-BUSINESS INDEX

Main Category	%	Middle Category	%	Industry	Supply	Operation	Sell	Supportive
Environment	15	Customer Environment	30	Costume	32	24	27	17
		Supplier Environment	30	Petrochemistry	21	40	27	12
		Industry Environment	20	Steel	24	34	26	16
		Policy Environment	20	Mechanics	32	27	27	14
Resources & Infra	20	IT Investment	24	Electronics	28	25	28	19
		Computing & Network	18	Automobile	33	28	27	12
		Security & Risk Mgt.	17	Construction	40	25	17	18
		DB & Integration	19	Distribution	21	16	51	12
		IT Personnel & Institution	22	Transportation	13	44	25	18
Process	35	* industry-specific weights		Telecom	20	23	42	15
People	30	CEO	44	Finance	17	25	41	17
		Executives	23					
		E-biz org. & Personnel	18					
		Whole Org. & Personnel	15					

The survey result is analyzed using regression, correlation analysis and structural equation model (Kline 1998; Wheaton, Muthén, Alwin, & Summers 1977; Carmines & McIver 1981; Chin & Todd 1995). The average e-business index was 50.8 and the highest is financial industry (60.7) while the lowest is costume industry (38.7) as in Table 2. The electronics industry is the highest among manufacturing industries (55.4) and the transportation industry is the lowest among non-manufacturing industries (48.4). Among the e-business index components, the Environment and Resources/Infra are relatively high while Process and People are relatively low. Despite good environment and infrastructure, the utilization of e-business process is relatively insufficient.

TABLE 2: E-BUSINESS INDEX COMPONENT SCORES

	Environment	Resources & Infra	Process	People	Total
Costume	51.9	40.6	35.0	35.1	38.7
Petrochemistry	59.8	49.8	52.5	54.1	53.5
Steel	54.8	44.7	46.9	41.5	46.0
Mechanics	59.2	44.0	45.7	42.1	46.3
Electronics	67.4	51.5	53.1	54.7	55.4
Automobile	64.5	49.5	56.7	49.4	54.2
Construction	57.5	47.4	50.0	48.0	50.0
Distribution	61.4	50.3	48.7	50.5	51.5
Transportation	59.6	47.1	46.4	45.9	48.4
Telecom	67.6	64.1	50.4	58.0	58.0
Finance	68.2	65.0	58.6	56.6	60.7
<b>Total</b>	<b>60.7</b>	<b>50.1</b>	<b>49.2</b>	<b>48.3</b>	<b>50.8</b>

## Strategic Implications from E-Business Maturity Matrix

Based on the survey result, we try to classify the industries. For the classification, we propose the two dimensions: E-Biz Readiness and E-Biz Utilization. E-business readiness is the function of Environment, Resources & Infra, and People, and the e-business utilization is the function of Process. Using the two dimensions, we can classify the industries into four types as in Fig. 2.

Using the e-business maturity matrix, we can derive e-business strategy. For the industries such as Costume, Steel, Mechanics, Transportation, Construction industry, which have low-level of e-business readiness and low-level of e-business utilization (Type C in Fig. 2) we need to emphasize e-business mind and will by promoting e-business itself and its education. For these industries, we also need industry-level infrastructure and policy, which includes cooperative system such as Digital Industry Cluster, Enterprise Integration and support on value chain, and industry-level infrastructure.

For the Telecom and Distribution industry, which have high-level of e-business readiness but a low-level of e-business utilization (Type B in Fig. 2), we need to complement e-business infrastructure by extending the scope of e-business process. For the Finance, Electronics, Automobile and Petrochemistry, which have high level of e-business readiness and e-business utilization (Type A in Fig. 2), we need to emphasize more e-business utilization and systematic evaluation on the e-business performance. As such, by the utilization of E-Business Index, we can support the efficient development of e-business strategy through the self-diagnosis of individual enterprise.

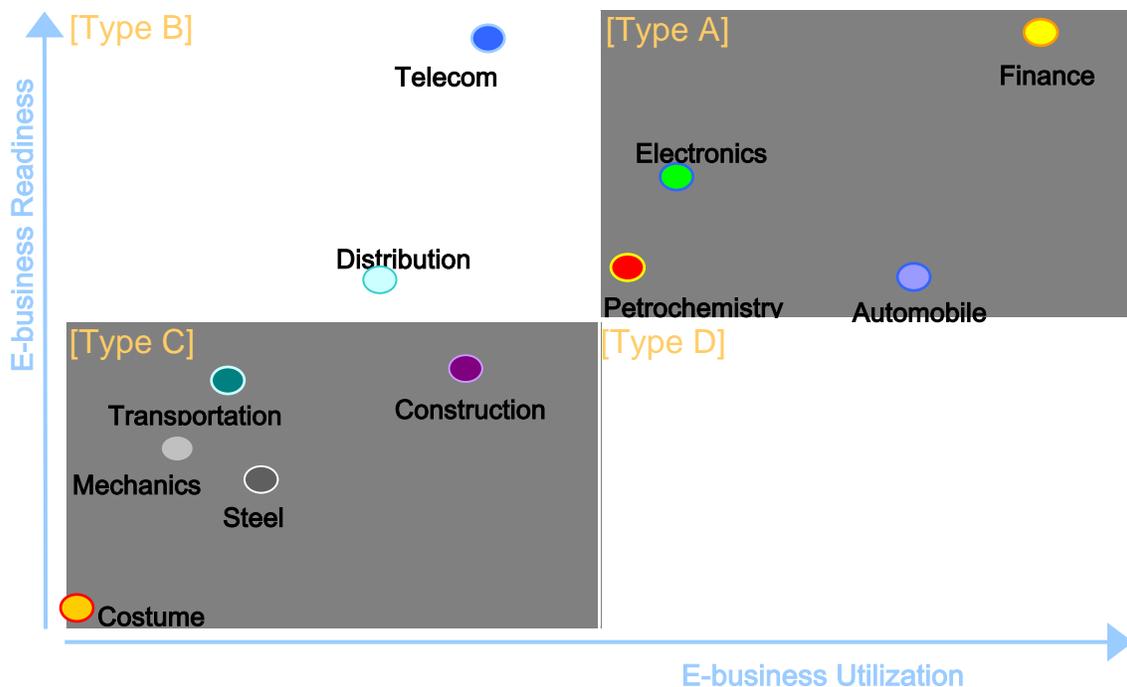


FIG. 2: E-BUSINESS MATURITY MATRIX

## Hypotheses from Ser-M Model and the Confirmation

The Ser-M model claims that in the early stage of a company the 'subject' will be the most important factor affecting the company performance. As the company grows, the important factor is claimed to be sequentially

changed to ‘environment’, ‘resource’, and ‘mechanism’. Therefore, according to the Ser-M theory, the expected sequence of important components in E-business index is People, Environment, Resource & Infra, and Process.

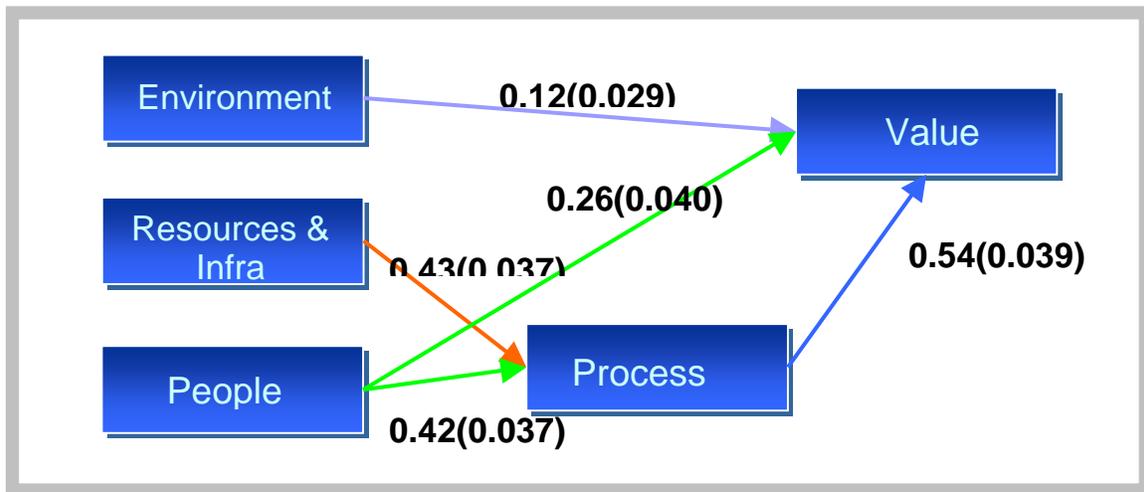


FIG. 3: STRUCTURAL EQUATION MODEL FOR THE E-BUSINESS INDEX

We use structural equation model for analyzing the causal relationship between the variables. Figure 3 presents the LISREL estimates for all free parameters and their standard errors (written in parentheses). All of the parameters are statistically significant at the  $\alpha = 0.05$  level. The  $\chi^2$  for the test of the model has a probability level of 0.185, indicating a good fit. In addition, adjusted goodness of fit index (AGFI) is 0.98, which also indicates a good fit. As we see in Figure 3, the most important component for value creation of e-business is process. People are also a major variable impacting on the value as well as process. This implies that for the e-business success the will of CEO including executives, the capabilities of e-business organization, and the readiness and mind of the whole employee are very important. Resource & Infra variable was insignificant in our structural equation analysis.

Next, under the same structural equation model in Figure 3, we tried to see the revenue-dependent variation of the impacts of e-business components on the value of the firm. For this we classified 500 companies into three revenue groups, and then fit the structural equation model for the index score data of each group. The results of LISREL estimates and the probability values ( $p$ -value) of  $\chi^2$  test for the model fit are listed in Table 3. As we see in Table 2, the impact of e-business environment on the value creation of e-business is insignificant to the small or large-size business group while statistically significant to the mid-size business group (It confirms the conjecture of the SER-M!). The impact of e-business resource on the value creation of e-business is insignificant, but the importance of people in e-business has a trend decreasing with the increase of revenue size (It also confirms SER-M!). The importance of people in e-business is the largest in the small-revenue business group (It confirms SER-M!). The importance of process in e-business is the largest in the large-revenue business group (It confirms SER-M!).

	Annual Revenue			Established Date		
	\$0.8B ~	\$80M ~ \$0.8B	~ \$80M	~1969	1970-89	1990 ~
ENV-VAL	0.01	<b>0.22*</b>	-0.03	0.10*	<b>0.13*</b>	0.09*
RES-VAL	0.04	0.08	0.00	0.03	0.05	-0.02
PEO-VAL	0.21*	0.23*	<b>0.32*</b>	0.23*	<b>0.29*</b>	0.26*
PRO-VAL	<b>0.59*</b>	0.42*	0.58*	<b>0.56*</b>	<b>0.50*</b>	<b>0.53*</b>
RES-PRO	0.44*	0.45*	0.35*	0.50*	0.48*	0.22*
PEO-PRO	0.42*	0.37*	0.33*	0.43*	0.36*	0.53*
<i>p</i> -value	0.329	0.402	0.396	0.366	0.372	0.413

TABLE 3: SUMMARY OF SEM ANALYSIS (“\*” DENOTES THAT PATH COEFFICIENT IS STATISTICALLY SIGNIFICANT AT THE  $\alpha = 0.05$  LEVEL)

Next, we try to see the age-dependent variation of the impacts of e-business components on the value of the firm. Again we classified 500 companies into three age groups, and then fit the structural equation model for the index score data of each group. As seen in Table 2, the impact of e-business environment and people on the value creation of e-business is the largest in the middle-age business group. However, the impact of e-business resource on the value creation of e-business is insignificant. The importance of process in e-business is the largest in the old-age business group.

## Conclusion

For the systematic planning and implementation of e-business, an objective and quantifiable evaluation metric should be developed. There have many attempts to measure e-business readiness, utilization, and the effect in various contexts (Barua, Konana, Whinston, & Yin 2001; Bharadwaj 2000) such as B2B e-procurement (Subramaniam & Shaw 2002), B2C Web site (Saeed, Hwang, & Grover 2002), B2C channel (Devaraj & Kohli 2002), online-brokerage (Chen & Hitt, 2002), and Internet business (Kim, Lee, Han, & Lee, 2002). Such an e-business evaluation methodology is a pre-requisite for the good e-business policy making of government as well as for the e-business decision and implementation of companies. Since 2002, Korea's Ministry of Commerce, Industry and Energy (MOCIE) have developed e-business Index. Based on the Ser-M model (Cho & Lee, 1998), a new paradigm of strategy theory, the E-business Index has five main areas for the evaluation of e-business of a company: 1) People, 2) Environment, 3) Resources & Infrastructure, 4) Process, and 5) Value. The survey result is analyzed using regression analysis, correlation analysis, and structural equation model. Especially, the structural equation analysis confirms some hypotheses of the Ser-M paradigm. In addition to the academic results, the E-Business Index study produces various and interesting business and policy implications such as supporting the efficient development of e-business strategy through the self-diagnosis of individual enterprise (Fig. 4).

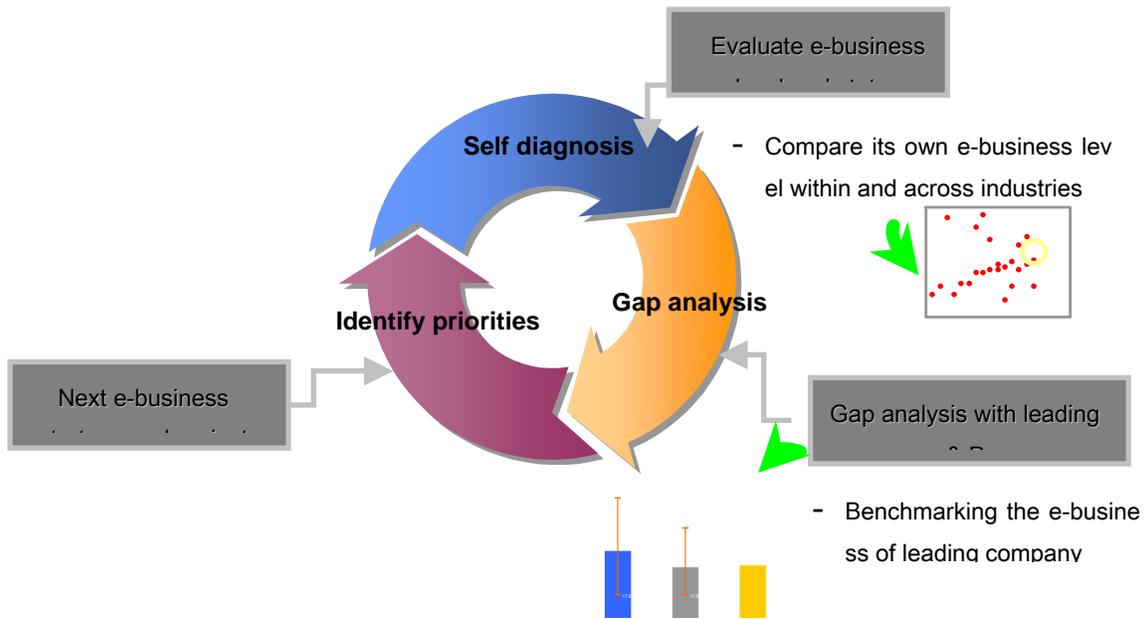


FIG. 4: UTILIZATION OF E-BUSINESS INDEX

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## **EU-Lisbon Strategy on E-Europe: A Realistic One?**

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### **Abstract**

**The paper deals with some aspects of the so-called Lisbon strategy of the EU especially from the point of view of its main goals as formulated at the EU Summit in March 2000 in Lisbon and their comparison with the current status as achieved until now. In our paper, taking into account also the mid-term evaluation as conducted by the so-called W. Kok's High Level Group commissioned by the EU we came to conclusion that the whole Lisbon strategy if should meet its main objectives, among others it would need also a qualitatively completely new approaches and the implementation strategy. With some aspects of this new approach and/or strategy we are dealing in this paper.**

### **Some Background Information on the History of the Lisbon Strategy**

The European Union on the summit of its Council in Lisbon in March 22-23 2000 has adopted its now already famous and well known so-called "Lisbon Strategy". The main goal of this strategy formulated as the main EU's development strategy goal for the beginning of the 21<sup>st</sup> century has been to create from the Union "the most dynamic and competitive knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion and respect for environment" [1]. In this respect and mainly due to its main objectives, the Lisbon strategy is at least as important and thus fully comparable with such other EU's former important strategies like its Internal Market, CAP, CFSP or Euro. This more than an ambitious strategy has been formulated in such a way that the above main goals have to be achieved by year 2010. That in short and in other words means that in year 2010 the EU should be the most dynamically developing and competitive knowledge based economy in the world i.e. one more advanced than e.g. the USA, etc.

Soon after the adoption of the Lisbon strategy on the e-Europe - as the main product of its implementation has become known - the whole process of the gradual implementation has started. One of the first and the most important steps in this respect has been taken by the EU on 19-20 June 2000 in Feira in the end of the same Portugal's EU presidency. There has been approved and launched the EU's e-Europe Action Plan. The main objectives of this Action Plan has been to bring Europe closer to gradual meeting the main strategic objectives of the whole Lisbon strategy. In particular, the main actions and targets of the e-Europe Action Plan (e-Europe Progress Report) has been:

- Making Internet use cheaper and faster as the main backbone of the whole Lisbon strategy on e-Europe
- Providing modern public services online i.e. providing them cheaper and faster through the most widely available Internet and all its main functions i.e. web sites, e-mails, etc.
- Progressing in creation of a dynamic e-business environment as one of the key and the most important parts of the whole Lisbon strategy on e-Europe.

As the whole Lisbon strategy on e-Europe and its Action Plan have been adopted at the time when it has already been quite clear that the EU will sooner or later be enlarged by up to 13 at that time candidate countries for accession to the EU it was necessary to adopt also for these future member states of the EU - and/or at least for some of them i.e. the best prepared ones - a plan that would lead them to their future obligations and responsibilities towards e-Europe as well.

Hence, also all candidate countries have soon been included to the process of the implementation of the Lisbon strategy. On the Gotheborg European Council in June 2001 in the end of the Swedish presidency the original Action Plan of 15 existing members of the EU has been mirrored and supplemented by the e-Europe+ Action Plan. The sign + (plus) in this Action Plan means that it is the plan concerning future enlarged EU that would become reality definitely before the final year of the whole Lisbon strategy i.e. before the final year of 2010. But at the time

of its adoption in Gotheborg it could not yet been clear neither how many new members and when they would finally join the EU and thus also becoming co-responsible for the implementation of the whole Lisbon strategy. However, this Action Plan has not been the last one in the relatively complex and sometimes rather unclear structure of various Plans, Actions Plans, Strategies and their national versions, etc. Just for illustration, an another strategy of the EU has been endorsed by the European Summit in Sevilla on 21 June 2002 in the form of the e-Europe 2005 Action Plan that has foresaw the establishment of “an European e-business support network (e-BSN), federating existing European, national and regional players in the field with a view to strengthening and coordinating actions in support of SMEs in the field of e-business”. Hence, it has been an another Action Plan with the mid-term horizon of year 2005 and as usual followed by an another Action Plan e-Europe 2005 + i.e. extended to the future new member states but as the later development has demonstrated not all the above various political decisions have found also the proper place in the developing of the e-Europe 2010 as we call the final goal of the entire Lisbon strategy and as it is quite clearly and rather critically stated also in the W. Kok’s report [1]. In order to make the overall situation with various strategic documents even more complex, one could meet also documents with a strategy of e-Europe 2003 and its “plus” version i.e. the e-Europe+ 2003 [2] that could be understood as a partial strategy for the first 3 years of the overall implementation.

However, in addition to the above various political decisions regarding implementation of the Lisbon strategy that to some extent made the whole implementation rather too complex and mutually overlapping, there has almost instantly been opened also an another important problem related to the enlarged EU. From the very beginning it was quite clear that after the next enlargement the whole Union would be automatically less developed entity than the original EU-15. It has been so mainly because of the fact that practically all future new member states but perhaps Slovenia have been on a much lower development level regarding the overall macroeconomic performance and thus also much lower standard of living than the original EU. That all of course has had also a very negative impact also regarding the situation with the ICT and knowledge based society in the future enlarged EU than in the original 15 member states. This has been from the beginning of the implementation of the Lisbon strategy one evident and quite logical obstacle - however, mostly overlooked - in reaching the particular final goal by year 2010. As on the 1<sup>st</sup> May 2004 the EU has been enlarged (to some extent quite surprisingly and originally not expected by so many countries) by 10 new members this potential obstacle has become a reality. From the point of view of the whole Lisbon strategy as originally adopted it is clear that with these ten new members the gap in ITC application and utilization between the EU and the USA could definitely just further increase as almost all key Information Society indicators have become less favorable and/or positive in the case of the EU-25 in difference to the USA where the natural and steady development has continued in spite of all various difficulties e.g. after the 9/11, etc. In addition we have still to take into account that this latest enlargement has not been the last one before the target date of the year 2010. In year 2007 another two and even less developed countries from the CEE viz. Romania and Bulgaria will join the EU and thus not increasing the Union to the EU-27 and in terms of the e-Europe thus further increasing the particular gap towards the USA. As this author has several times recommended on various forums organized on e-Europe by the EU, it would be highly desirable if all those various partial strategies after the last enlargement would be unified to the one only: e-Europe-25 2010 i.e. e-Europe strategy of the current 25 member states with the horizon of the final year of the Lisbon strategy i.e. 2010 (possibly in 2007 after the accession of Romania and Bulgaria to be modified to e-Europe-27 2010!

**The Latest Enlargement to EU-25 and later to the EU-27 has not been and will not be in Favor of the Implementation of the Lisbon Strategy**

In general, however, it would be an oversimplification if for all the negatives and insufficiencies in not meeting so far the main strategic objectives of the Lisbon strategy, only the latest enlargement would be blamed. But on the other hand it is true that the Lisbon strategy in this respect had to be more visionary and at the same time more realistic i.e. perhaps less ambitious in formulations of its goals and various Strategies and Action Plans and more pragmatic and realistic in the tools how to reach them. Especially, from the very beginning it was necessary to mobilize better and more completely all the resources that the EU unquestionably has, in support of the implementation strategy and not to rely so much on the responsibility of the member states and their dedication to the Lisbon strategy and its practical implementation in their respective own countries Perhaps it would be in this respect also more beneficial if the EU and its member states would learn more from the USA and its experiences

from developing its Information Society although without anything like any specific national wide e-USA Strategy. Because after all, the Lisbon strategy is not about creating something like individual e-member states and then somehow to combine them together but from the very beginning it has been mainly about creating e-Europe as a whole. It means e-Europe with all its member states irrespective if of original 15, or enlarged to 18 or 20 what were at the beginning of 2000s the most realistic expectations regarding the future number of the enlarged EU. For almost the whole pre-enlargement process it was expected that only best prepared 4-5 candidate countries would become new members of the EU. As we know the reality has been much more ambitious and the current enlarged EU of 25 member states has been comprising also such members that are in many indicators and not only in ICT on the levels of only 35-50% of the average of the EU-15.

It is the case not only of indicators on the average GDP per capita as one of the most important indicators regarding preparedness of the candidate countries for accession into the EU. In the whole history of all previous enlargements of the EU it was expected that in time of accession that indicator would achieve at least 60% of the average of the EU. In all previous enlargements that average was always met even by such relatively at that time poor new members like Ireland, Portugal, Spain or Greece. But in the case of this last enlargement out of 8 CEEC only Slovenia has been over that threshold, all other were and still have been below that. And of course that has a negative effect also on the situation in these new member countries regarding their preparedness and readiness for the challenges of the e-Europe and the whole Lisbon strategy. It is quite an illusion to expect that a country where according to the EUROSTAT 30 per cent of population is living on or below the national (i.e. a very low of about only 150 Euro per month) poverty line, with 18-20 per cent of unemployment and an average monthly salary of only 400 Euro (gross), that the implementation of the Lisbon strategy would and could have any massive support and/or a healthy and prospective environment for the development of e-business, etc. It is absolutely true - although many experts do not like to hear that - that for a citizen living on or only slightly above the poverty line or below the above average monthly (gross) salary of 400 Euro (moreover, if 70% of working people's salaries are below that average gross monthly salary) it is quite ridiculous to think in terms of e-business, e-purchases or e-banking, e-education, etc. if their incomes hardly enable them to pay bills for basic living essentials like food, utilities, rents, etc. This is by itself one of the weakest aspects of the whole Lisbon strategy i.e. that it has to some extent totally separated the goals and objectives of the e-Europe from the overall macroeconomic and socio-economic situation in the current enlarged EU where about 100 million of its new citizens are still and be for some time, living in a system of surviving "from a pay-check to the next month pay-check". In our opinion, e-Europe cannot definitely be considered only in terms of ICT, number of PCs, links to Internet, etc. but it has to have also its socio-economic dimension.

#### **The Lack of Commitment and Support to the Implementation of the Lisbon Strategy**

In addition to the problems of the e-Europe regarding negative effects of enlargement and overall socio-economic development especially in the new member states there are also some other problems that are negatively effecting implementation of the overall Lisbon strategy. Another evident obstacle to the overall process of successful implementation of the Lisbon strategy has also been the fact that the EU has not managed as yet to mobilize so many resources, capacities and funding in support of the Lisbon strategy, as it would have been needed for its currently most important development strategy. By any objective standards and/or criteria the Lisbon strategy has to be undoubtedly the most important and most strategic goal of the Union for the whole first decade of the new millennium and to this strategic goal also all other various strategies, programs, plans, budget provisions, etc. have to be clearly, absolutely and fully subordinated. Unfortunately, as also quite recently the mid-term evaluation of the Lisbon strategy has clearly stated [1], not all involved and especially not the member states themselves and their respective governments have made the Lisbon strategy truly and fully also the main parts of their national strategies in their respective countries.

However, it is not only the member states of the EU that have not yet made enough in support of the so far completed stages of the Lisbon strategy. It is quite evident that also on the higher level of the whole EU i.e. on the level of its supranational institutions - but again to the large extent probably mainly due to the overall stance of the member states and their governments - not everything has been prepared in such a way that the implementation of the Lisbon strategy would have got such a budgetary, legislative, institutional, research and other necessary supports as it would have been required. Such an ambitious strategy as undoubtedly also the Lisbon strategy is, simply cannot

be relying only on nicely formulated strategies, action plans, development programs, national initiatives, etc. but has first of all to be based on an absolutely adequate mobilization of all available resources, etc.

As it has been in this connection stated also in the mid-term W. Kok's evaluation report of the Lisbon strategy [1] there is necessity to adopt an urgent action across five key areas of the overall policy of the EU:

- The knowledge society – the EU has to become more attractive and supportive to the development of the research and development, making R&D the top priority especially in the areas directly related to the knowledge based and/or Information Society i.e. in the areas of ICT
- The Internal market – it has to be completed so to say completely i.e. including all free movements of goods, capital but also all kind of services and also people as after the last enlargement this last and the most important free movement has been not provided for the citizens from the new member states
- The business climate – it requires first of all reduction of the overall administrative burden, improvement of the quality of legislation, a more adequate support to the new start-up enterprises and creating more supportive environment for businesses especially in the category of SME
- The labor market – in addition to the above absolutely free movement of persons and thus also workers, researchers, developers, entrepreneurs, students, etc. it is required to support for all various forms of lifelong, informal education and learning
- Environmental sustainability – various policies are needed for supporting long-term and sustained improvement in productivity through eco-efficiency.

It is quite clear that the particular report is quite right in identifying the above key areas of the necessity to foster further development especially in the above five priority areas as all of them are quite crucial for achieving the final goal of the whole Lisbon strategy i.e. to become the most advanced knowledge based society in the world by year 2010. In addition to them we would again underline also another important aspects of the whole remaining period of implementation of the Lisbon strategy and that is achieving a social cohesion and overall standard of living especially in the new member states that in year 2010 will represent more than 20% of the total population of the Union of 27 member states.

#### **What are the Main Problems and what is needed in Order to Accelerate the Whole Process of the Implementation of the Lisbon Strategy**

On the basis of also our own experiences from active participation in various EU funded projects from the area of IST – Information Society and Technology research and development [3], [4], [5] and while taking into account also the above recommendations from the Kok's report we could formulate the following main conclusions and recommendation that could help in bringing the Lisbon strategy to its successful completion by its target year of 2010:

It is quite evident that one of the key and the most crucial elements for the whole further successful implementation of the Lisbon strategy is – according also to the first above recommendation – especially the systematic and long-term support to the R&D particularly in the areas directly related to the Information Society and ICT. Unfortunately, so far existing situation in this area is quite far from any optimal one. There are quite evident shortcomings in the organization of the R&D on the Union as well as national levels:

- Especially, the overall budgetary support is in this respect absolutely inadequate. If for example we take that in the USA for the R&D is allocated 2.9% of the budget and in Japan even 3.0% so in the EU it is only 1.9 and in Slovakia less than 1%! According to the W. Kok's report only two out of 15 member states of the EU are currently reaching 3% of the budget expenditures on the R&D.
- On the level of the whole EU one of the most striking indicators on an insufficient support to the R&D is the allocation of the funds from the EU budget. For the whole research and development under the 6<sup>th</sup> Framework Program) that represents the main financial and legal instrument of the European Commission to implement the ERA – European Research Area as something like the common “internal market” of the EU in the area of research and development altogether only 17.5 million Euro has been allocated for the whole period of its operation i.e. years 2002-2006. It means that for. 5 years that according to the all accounts could be considered as the crucial for the start of the practical implementation of the Lisbon strategy as its start followed quite systematically the adoption of all crucial documents as we have

mentioned them above in years 2000-2002 i.e. the Lisbon Strategy, the Action Plans, etc. then we see there a clear under-budgeting. When we compare the total amount allocated for their practical implementation we find that for five years it is “only” 17.5 billion Euro i.e. 3.5 billion Euro per year or about 3.5% of the annual central budget of the EU. But we have to take into account that the upper limit of contributions to the EU budget is only 1.27% of the GDP in the member states. On the other hand only the CAP – Common Agricultural Policy alone gets every year almost 50 billion Euro or 50% of the total budget. Although it is clear that the agricultural sector is definitely not one of those where one could expect any substantial contribution to anything like “knowledge based economy” or a basis for creation of “more and better jobs” as in general it is a sector that is in the overall decline regarding its share on employment, GDP generation, technological progress, etc. In this respect a completely new and revolutionary reallocation in the EU’s central budget would be needed especially from the over subsidized agriculture to under-budgeted R&D and especially to those its sectors dealing with ICT, knowledge based society, e-Europe, etc. One of the possible solutions could be also to use “saved” subsidies for CAP in new member states on the level of only 25% of the “old” members for the support of e-Europe+ i.e. helping new member states and thus reduce their delay and existing “digital divide” between old and new members of the EU

- Also from the point of view of its overall structure the 6FP gets no specific priority to the IST – Information Society and Technology research area as the key area for the implementation of the Lisbon strategy and e-Europe. In general it is only one of the 7 priority areas together with various other priority research areas like e.g. Aeronautics and space or Food quality and safety, etc. This is not to say that all other areas are not important for the further development of the EU and for its citizens. In fact in their opinion, probably the Food quality and safety has higher priority than Information society, etc. But in any case, the main strategic goal and objective of the whole Union regarding its future leading place in the ongoing processes of globalization and regional integration, in generating more (in order to reduce existing almost 10% unemployment in comparison with that in the USA of only about 5%) and better jobs should have an absolute priority. It is clear that only well functioning e-Europe could create conditions for properly functioning knowledge based society, e-businesses and thus also of more and better jobs and all in all creating also in the EU conditions for full employment, a higher standard of living of all its citizens, etc.
- Even within the IST itself not everything is fully in support of the main strategic objectives of the Lisbon strategy. Among various research and development projects being supported within the 6FP is quite often an evident overlapping and thus not the best utilization of the still rather limited capacities, resources, etc. For example, this author has in year 2002-2003 coordinated participation of Slovakia in the SIBIS – Statistical Indicators for Benchmarking Information Society [3], [4] as one of the crucial projects for the measuring the progress in achieving individual goals related to IS as such through newly designed statistical indicators and to compare them with the USA or Switzerland, but... at least two other similar projects on benchmarking, indicators, etc. were solved by two other research institutions and their respective consortia. What was even worse in this respect it has been the fact that the budget of the SIBIS project has not allowed to cover all candidate countries so e.g. Cyprus and Malta were not covered by the particular surveys although they became new members of the EU together with other 8 CEEC. On the other hand, Bulgaria and Romania that will become the members of the EU only in 2007 were included in the particular project. Hence, the comparability of the current EU-25 with the USA is not quite exact. And in order to make it even more complex, the whole SIBIS project has been implemented as a single act i.e. without any conditions created for the continuing comparisons and measuring of the progress in the further development of the IS in the enlarged (not absolutely precisely, but anyhow) EU-25 vis-à-vis the USA. That all in spite of the fact, that the SIBIS project has had almost an ideal timing as its initial benchmarking and comparative data base of statistical indicators has been created in year 2003 i.e. closely before the last enlargement but... There was no financial support available for keeping that invaluable data base permanently updated so it could serve as a basis for comparing the progress of the EU towards its final goal of becoming the most advanced knowledge based society in the world in year 2010. It was just enough to

coordinate better various similar partially overlapping projects funded by the EU and the necessary funding would be easily available

- That the e-Europe is not by all involved considered as the absolute priority of the EU's R&D could be documented also by another practical experience of this author. On 14 January 2005 he has participated in the NEST – New Emerging Sciences and Technologies Conference organized by the European Commission in Brussels. Even without any special interest and involvement in the e-Europe, one would implicitly expect that an absolute priority also in this program dealing with “new and emerging sciences and technologies” would belong to those related to the main strategic objectives of the whole Lisbon strategy i.e. IST but...On my particular question in that respect, my question was by the moderator characterized as a “strange” one as according to his explanation, those related to the Lisbon strategy, e-Europe belong to the IST priority area as we have mentioned above and not to the NEST?! One could hardly understand such a “categorization” and/or “exclusion” from the Community funded research especially if it is regarding an area that should secure the most important strategic goal of the entire Union and if we take into account how insufficient is the funding of the R&D and especially that one related to the IST
- That the support to the main goals of the Lisbon strategy is not as it should be; we could bring many more examples. But instead of all, we bring at least one of them. As we have already mentioned, the e-BSN – Business Support Network has been created as a direct response to conclusions of the EU Summit in Sevilla on 21 June 2002. Although, there it has been directly identified as one of the main its objectives that network should “... federating existing European, national and regional players in this field...to strengthening and coordinating actions in support of SME in the field of e-business”. However, the budgetary support to this network from the 6FP is almost nil and participating national experts – who represent the most valuable source of know how and ideas can hardly expect even a reimbursement of the travel costs for their participation in individual workshops, etc. not to expect any technical, budgetary, incentive support to their research and development activities in e-BSN related activities. It means in the area of e-business i.e. that area of the future e-Europe that first of all has to generate new and better jobs, employment, products for consumption by the citizens of the EU but also to all global markets, to generate financial resources for FDI, etc. It is clear that no other area of the future e-Europe could fulfill the same objectives but ...the financial support to this key area of the IS has been almost zero. Again it is perhaps worth to mention that in the USA about 80% of the new jobs and GDP have been generated by the small and medium businesses
- One of evident lacks in the support of the implementation process of the Lisbon strategy has been also an institutionalization of the whole process. Although, otherwise, and in general, the process of accession of the new members from the CEEC to the EU has been accompanied by a creation of various and numerous institutions and regulatory offices, etc. It has been so even in the areas where the particular country does not have any specific needs for such an office, as e.g. it is in the case of the Slovak Republic in civil aviation. The civil aviation of the country is almost non-existing as the national carrier never has had more than 3 (three) originally Russian built aircraft and when it has been finally overtaken as a company permanently being in “red figures” by a foreign investor it has had only 1 remaining and aging aircraft but the particular Office of the Civil Aviation has had to be created and operated. Similarly various other offices have been established like Telecommunication Office, Office for Public Procurement, Antimonopoly Office, Office for the Civil Service, etc...but somehow no office for the e-Europe or Informatization of the Society has been mandatory requested although we do not repeat it again it is the area of the strategic importance for the future of the whole EU!. Hence, some countries like Hungary, the Czech Republic or Slovenia have such an office or ministry. But as it has not been mandatory to have such an office and/or ministry many countries among them also Slovakia such a coordinating institution do not have and the whole implementation of the Lisbon strategy has been very often in the hands of several institutions crisscrossing their competencies what definitely is not the best way for coordinating the most important strategic goal of the whole EU and all its member states. After all, the European Commission until recently has not had also

a Commissioner who would be responsible only and solely only for the e-Europe. There was only a combined portfolio for Enterprises and the Information society.

- The legislative support to the Information society has also not been so far fully corresponding to the actual needs and importance of the implementation of the Lisbon strategy. Altogether, so far over 40 (according to our latest records it is 42) acts of the *acquis communautaire* (Community legislation) have been adopted mostly in the form of various directives but their transposition and/or implementation has not been so far as efficient and as fast as the urgency of the e-Europe development process would have required. According to the recent statement of J. Borrell, President of the European Parliament (*Hospodarske Noviny* of 19 January 2005) only 7 (seven!) has been fully implemented. For example, in the Slovak Republic a law on the electronic signature has been enacted already as the new Law No. 215/2002 i.e. three years ago but even now in the year 2005 it has not been implemented and one just simply cannot use it in practice. Thus the practical utilization of an e-signature has still been waiting for creation of all necessary organizational, technical and other necessary infrastructural and other preconditions. And of course very similar situation has been also in other member states of the EU.

In this list of some inconsistencies we could continue also with other examples on the lack of the support to the implementation of the Lisbon strategy on e-Europe in the area of the R&D in the area of the preparation of the future knowledge based society, but the scope of this paper does not allow us to continue in this respect. So at least briefly we will identify the main problems in the remaining four areas of policy as identified in the W. Kok's Report [1]:

- It is absolutely inevitable that the Internal market will be completed in all basic four free movements. In this respect in addition to the free movement of services, goods and capital must be fully secured also a free movement of persons. That last kind of the free movement has some how not appeared in the Kok's report. Although it is clear that one of the main "secrets" of the success of the USA is its absolutely free movement of persons that to the large extents enables much higher employment and lower unemployment than in the EU. The whole "secret" of this success is right the free movement of persons. They are not waiting for new jobs while those jobs would come to them but they are just simply going wherever in the USA such jobs exist. The EU in this respect has already had one substantial and only hardly removable obstacle i.e. national, cultural and mainly language barrier with its 22 official languages (the UN with 190 member states manages to handle all its various global agendas with altogether 5 languages)! In order not to make it even worse there should not be imposed any other artificial ones like restrictions on free movement of persons from new member states for up to 7 years. Probably it is only by an unwanted accident that those seven years cover the whole remaining period for implementation of the Lisbon strategy. It is not only "unconstitutional" in respect of the basic provisions of the Treaties but it is directly also against the very basic principles of the e-Europe and the whole Lisbon strategy and its successful and full implementation in year 2010.
- Another important restriction negatively effecting the very basic functioning of the labor market of the EU is the whole set of various restrictions imposed by rather strict age limits. Although officially, there should not be any discrimination on the basis of age, in practice in many sectors age of over 35-40 rises already some questions regarding hiring even well qualified people for some professions. The age between 40-50 is already more than restrictive for finding a job in general and the age over 50 means already almost a total exclusion from any hiring process. Unfortunately, in spite of various legislative acts protecting in this respect a non-discriminatory approach, the reality is such that even in the Institutions of the EU, most probably one of the basic selection criteria for hiring their staff is an age of a candidate as even for the most senior posts as e.g. the post of the Director general of the Joint Research Centre i.e. the main hub of the overall research activities in the EU the experience is limited to "12 years postgraduate professional experience" what in general means an age of about 34-35 years or an age when usually otherwise young scientists are completing their PhD. studies or in a better case are preparing their associate professorships. In other words it means that young not-so-much experienced scientists have a clear priority before their much more senior mentors, professors, etc.. What a difference again against the USA or Canada where the

particular personal questionnaires even refrain from information on the age of a candidate and in general the most important indicator for hiring a new employee is only professional competence, experience and to some extent also a formal education. It is then again no surprise that in the USA are equally successful youngsters in their twenties and something (who in the EU have sometimes problems to find their first jobs because of their non-existent practice) as well as seniors in their seventies or even eighties and not only as porters, watchmen, etc. but as highly valued top governmental officers including ministers, chairmen and/or corporate top executives, chiefs executive officers, etc. Only this variety and an equal opportunity also from the aspects of age and experience can bring so important a full functioning labor market without any restriction but professional competence

- As we have already mentioned above, the overall business climate especially for its latest and the most innovative part i.e. e-business has not been very favorable especially in the new member states. In addition to the low standard of living that does not enable people to enjoy the benefits of the e-commerce, e-marketing, e-banking, etc. an another evident obstacle has been an accessibility of the latest computer and communication technologies and services and that all not only in the technical but also financial aspects. It is an absurdum in this respect if the computers or telecommunication services and/or Internet as the essential technological preconditions for the future e-Europe are more expensive especially in the new member states of the EU with average salaries of about 40% of the minimum wage in the USA than in the States. Not to speak about the discriminatory high fees for Internet, phone calls, etc. In summary, regarding more favorable conditions for the development of the e-business we could state that it is difficult and rather too naïve to expect any fast growth in the e-business if there is not enough customers for such a type of business and if also the necessary technological basis is prohibitively expensive. It is something totally different if an US citizen could buy a lap top computer for a fraction or less than 50% of the minimal wage or if it costs several gross monthly salaries or if local telephone calls are for free or if they are again prohibitively expensive and many people are just paradoxically in the period of implementation of the e-Europe strategy forced rather to cancel their fixed telephone lines than to pay permanently still higher various fixed fees, etc. Under such conditions even the most favorable legislation for establishing new SME will not help much if there are not enough customers, clients and especially if there is not “more favorable environment” including all communication and computer network infrastructures, etc.
- With the issue of the needs of an absolutely free and open labor market we have already dealt, as such it has to be fully available for all citizens of the EU similarly like it is in the USA. That is only way how the proper mobility and full utilization of the available workforce including still insufficient numbers of the ICT specialists can be achieved. If the EU really and truly wants to become the most advanced knowledge based society in the world than if nothing else it has to use the same strategies and tactics like those whom it wants to overtake. It is like in sport competitions, you cannot win with your opponents if you are not able to overcome their strategy and/or tactics if you do not know their strengths and weaknesses.. In this respect the EU needs to improve its overall system of education especially regarding education in the latest ICT and their practical applications. One could hardly expect any significant improvement in utilization of already existing e-business, e-banking, e-working opportunities if people just simply do not know even the simplest elementary principles of working with computers, Internet, web sites, etc. According to the latest survey e.g. in the Slovak Republic it has been found out that almost 80% teachers have never touched computer and not surprisingly their pupils whom they are supposed to teach are in many cases much better in using the latest ICT than their teachers?! It is very positive that in the new European Commission has been created also a new portfolio for education but it is important that the particular Commissioner will be able also to make something reasonable in forcing a kind of the modern, ICT oriented education not only for the young generation but especially for all the citizens of the EU. The e-Europe and the practical implementation of the Lisbon strategy just simply cannot wait while the current young generation will enter the common labor market of the EU. Unfortunately, so far there has not been seen any evident break through in this respect although time to the target date of year 2010 is running very fast and the main competitors of the EU regarding its future leading post in the knowledge based society are definitely not

waiting idly. On the contrary their educational systems in the latest ICT are very innovative, efficient and attractive for students. Especially in the case of the USA they are annually attracting thousands of students, PhD students, young scientists from all over the world – mainly thanks to various attractive scholarship schemas, stipends, etc. - who to the large extent are then further enriching and enhancing progress in education, research and development, etc. Just for comparison, this author among his students in the 4<sup>th</sup> year of graduate studies in management has had among his over 150 students only 4 (four) of them who were studying specialization in management of information systems i.e. one of the majors that in the comparable schools in the USA are attracting if not hundreds than definitely at least tens of students in every such a course and coming from all over the world. This is also saying something how attractive it is to work in the area of the ICT in comparison to e.g. financial management, banking, etc. It is then no surprise, that the huge and promising labor market of the EU has so far been attracting more unskilled unqualified immigrants from the periphery of the EU especially the Northern Africa than those who would be attracted by ICT related studies, research, jobs, etc. as there has still been missing any comparable scholarship, educational, employment programs similar to those in the USA.

- One of the evident deficiencies of the otherwise huge, ever growing and thus very promising common market of the EU has been that it has not been attracting as much FDI into the new and latest ICT as it is in the case of the USA. In difference to that especially the new member states of the EU are slowly but steadily becoming an area of various heavy and/or machinery oriented industries especially those regarding car production, etc. In difference to the above ICT oriented industries and R&D in the USA that are “environmentally friendly“ and really are creating conditions also for generating more and better jobs, for example the car industry is not only very high investments demanding, not-so-much environmentally friendly and especially from the point of view of the Lisbon strategy that industry is not creating neither better nor more jobs. Every job created in the car industry is demanding much more investment, requires much more of space very often on a valuable agricultural soil and as every kind of such industrial production requires also a lot of various natural and energetic resources, an expensive transport infrastructure and is also environmentally more hazardous. Not to mention that especially car industry is rather volatile and reacts very negatively to any decline in the customers demand and thus very much inclined to labor redundancies, lay offs, etc. After all, right now we have been witnessing massive layoffs practically in the case of all major carmakers in the world. Also in this case it is necessary to follow an example of the USA that has been mostly orienting its industrial development and R&D towards the latest ICT. Hence, in this case it is also relevant to repeat again that like in sport one cannot win over his/her opponent if not being knowledgeable of the main strategy, tactics and strength but also weaknesses of the latter. In the case of the USA, perhaps their only weakness in this respect is that they do not have anything like an e-USA strategy i.e. something like a systematic nation-wide strategy but on the other hand they are for such a non-existing strategy creating such a favorable conditions that the particular development in the ICT applications has been steadily and efficiently progressing. Creation of these conditions has to inspire also the EU and its e-Europe Lisbon strategy.

## Conclusion

If in view of the above, in the end we would try to answer the question from the title of this paper i.e. if the Lisbon strategy is not only an ambitious but also a realistic one, the answer is not so simple. Not only according to this author it is not realistic one as long as its ongoing implementation would be continuing in the same pace, direction and a lack of the true commitment as until now.

On the other hand it could still be a realistic one as there are still more than five years to go but that would require a completely different approach from all involved. As properly mentioned also in the W. Kok's report: "...To achieve the goals and higher growth and increased employment in order to sustain Europe's social model will require powerful, committed and convincing political leadership. The member states and the European Commission

must re-double their efforts to make changes happen...Greater focus is required to build understanding of why Lisbon (strategy) is relevant to every person in every household in Europe”.

This is exactly what also had in his mind this author when identifying some existing problems and deficiencies in implementation of the Lisbon strategy, how in many cases without any extra special measures it would be possible to improve substantially conditions for its more efficient implementation in still more than five years till 2010. It would just need as mentioned above that the member states and the European Commission will re-double their efforts to make those changes happen e.g. in the re-allocation of the EU budget, in improving existing business environment, a still rather rigid and not-fully-open labor market, insufficient education, an overall industrial orientation, etc. Then only the Lisbon strategy could meet its main strategic objectives by year 2010 and the e-Europe would really and truly become the most competitive knowledge-based society in the world with more and better jobs and a greater social cohesion e.g. between old and new members, etc.

Otherwise, if those adequate and sometimes definitely quite painful political decisions like e.g. about the CAP, unrestricted free movement of persons are not adopted very soon the whole Lisbon strategy and the dreams on e-Europe could just remain another one nice and ambitious but finally unsuccessful strategy.

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SECTION 6  
NEW TECHNOLOGY & EDUCATION

2005

# Ahead of the Storm: Designing an Online First Year Management Unit

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## Abstract

In seeking to develop a more engaging, motivating and interactive learning experience for external students, switching to an online learning environment was seen as an effective strategy. However, the design and technical requirements for developing a pedagogically sound and professional-looking web site that promotes effective learning requires a broader skills effort than can be reasonably expected of individual academic staff working alone. This paper presents a design and development process used to put into action an online learning program that meets constructivist objectives. The authors address the debates in the literature regarding online learning and social constructivism and the key elements of design and pedagogy are examined. It is argued that social constructivism is the most appropriate theoretical perspective for informing the online development of content, teacher-student and student-student interaction. Specific attention is given to instructional design considerations and support, and the team-based approach used to deliver the unit.

## Introduction

The growing adoption of online learning strategies in higher education is a controversial and much discussed topic in educational literature (eg Bonk, 2004a, b and Bowles, 2004). Whilst there is much debate about pedagogy, participation and access, practitioners and researchers agree that information and communications technologies (ICT) are dramatically altering the higher education landscape (Blass & Davis, 2003; Bowles, 2004; Welsh, Wanberg, Brown, & Simmering, 2003). Indeed, Bonk (2004a, b) argues that online learning in higher education has created a 'perfect e-storm' where technology, learner demand and developing pedagogies are merging to generate waves of opportunities for developing learning environments that are motivating, collaborative and highly interactive. Bonk also recognises that this 'storm' is intensified by declining budgets. Universities are thus under increasing pressure as they are unable to fund the infrastructure, staff development and organisational arrangements necessary to keep ahead of the oncoming 'perfect storm'.

The aim of this paper is to offer a practical case study in response to Bonk's (2004a, b) 'perfect e-storm' of how technology, learners and educational theories have been considered in the design and development of a fully online unit: *Management 100*, an introductory undergraduate unit at Curtin Business School. The Business School has a significant external studies programme with Management 100 being one of the five foundation units. During 2003/2004 Management 100 was reviewed and re-written to update the content and introduce constructivist principles in teaching and assessment. Part of this review process was the development of a significant on-line presence for all Management 100 students (approximately 600 in Australia and 300 in internationally). The focus of this paper is the improvement of the existing paper-based mode of delivery for external students using ICTs. Each semester approximately forty external students enrol in Management 100. This change was driven by the recognition of a need to provide external students with a more engaging and motivating course of study that would improve the retention rate. Under the paper-based model, the attrition rates regularly exceeded 50%, this was considered unacceptable and the introduction of an online unit was seen as a possible strategy for reducing this high rate. The University provided a small grant of \$8,000 to assist with the project. The team consisted primarily of an academic leading the development in partnership with an instructional designer, with the support of a programmer and web designer.

Interestingly the advantages (and criticisms) of online learning are not due to the technology *per se* (Clarke, 1983, Salomon, 2000), but to the way in which it is used. Thus, due to the impact that instructional design has on

the learning experiences of students (Keppell, 2003), a reasonable responsibility of any designer of education (in this case the academic and instructional designer) is to 'declare' the underpinning theoretical assumptions (Koschmann, 2000). As such this paper begins with a review of recent literature to present an overview of the key issues that should be considered when designing for the online environment. Relevant theoretical perspectives are then examined and used to develop and articulate the guiding principles along which Management 100 has been designed. In spite of recent criticism we argue that social constructivism is the most appropriate framework for developing adult learning strategies, particularly in the realm of online learning. Through the use of sound pedagogy, effective design, adopting a team approach and the appropriate application of online technologies we argued that it is possible to implement an online introductory management unit that provides an effective student learning environment.

The team assembled to develop Management 100 as an online unit are not just trying to 'ride' Bonk's 'perfect storm' but, more importantly, are responding to his challenge which is to attempt to get ahead of the storm and develop innovative strategies to take advantage of the emerging technologies and the opportunities they present to design and develop high quality teaching and learning programs. They found themselves in a complex situation in which the rules and conventions of teaching and learning in the online learning environment are not as clearly developed, or widely accepted as it is in the face-to-face situation. The convergence of issues identified by Bonk is changing the foundations of teaching and learning in higher education. With all its breakdowns and new departures, the emerging contours of online learning are difficult to identify and will most likely only be fully understood in hindsight.

## **Online Learning Concerns**

The growing adoption of online learning in higher education has led to a healthy critical stance towards its use (eg Clegg, Hudson & Steel, 2003; Bowles, 2004). An overview of the key criticisms can help recognise and avoid their pitfalls. Criticism, for example is levelled at practitioners of online learning who accept, unquestioningly, learning technologies and their associated pedagogical approaches without considering how appropriate they may be to the learning requirements (Clegg, et al., 2003). The use of discussion boards and chat facilities are examples of technologies that facilitate communication between students and teacher. Communication is obviously important to learning, however 'uncritical acceptance' of these tools means they may be used without regard for their benefit or appropriateness to a particular learning outcome (Clegg et al., 2003). Asking students in a learning group to post answers to a calculation question on a discussion board where there is only one correct answer may be meaningless as they can see each others answers before they send their own (it would be a totally different case if the students' answers were subjective, and thus review of peer postings would improve their understanding). Similarly, the uncritical use of technologies just for the sake of using them can make learning materials unnecessarily complicated, inaccessible and difficult to use. Audio and video are often over-used in circumstances where a text alternative would easily suffice.

Clegg et al. (2003) also warn against the proliferation of unsubstantiated online learning strategies that may occur when organisational pressure to implement online learning solutions compromise the ability of teachers to ensure sound pedagogical practices. This is evident in the over-reliance on online multiple-choice quizzes for assessment. Teachers new to the online environment accept the tools provided, in this case multiple-choice quizzes. This practice discounts sound educational design as multiple-choice questions, for example tend to test low-level knowledge and comprehension and seldom foster advanced cognitive processing. The lure for teachers is that quizzes are easy to create, especially when supplied free from publishers and are automatically marked by the learning management system—appreciably reducing teaching time.

Similar to distance education, online learning programs have attracted criticism for being 'boring, poorly conceived and designed, and unable to provide individuals with the knowledge they need' and thus not conducive to effective learning (Bowles, 2004, p. 17). Two issues might account for this. The first is that the development of quality online learning is not a skill that traditional university teachers normally have so may inhibit their ability to create effective online offerings. Skills required for online learning include an understanding of human-computer

interaction, online knowledge and information architecture, use of learning management systems and associated tools, and experience in strategies for managing online students—skills normally attributed to professional online learning instructional designers. Graphic design, programming and project management skills are helpful though not vital skills.

The second issue is the danger of a gap developing between students' expectations and experiences of online technologies and those of their teachers (Oblinger, 2003). One report of high schools in the United States, for example, showed that students felt more 'Internet-savvy' than their teachers and found teacher use of technology as 'uninspiring' (Oblinger, 2003, p. 39). If the expectations of users of online learning technology over estimate the capabilities of the technology then an aspiration-reality gap may develop, leading to disillusionment, disappointment and eventual failure of online learning initiatives (Ottewill & Wall, 2002). This is not surprising considering the tendency for learning institutions to adopt a one-size-fits-all online solution simply as a means of saving money (Bowles, 2004). It is no wonder that online learning has been viewed with scepticism.

#### **No Significant Difference**

Despite the criticisms there are ample articles reporting on the advantages of online learning. Perhaps one of the best known is for distance education students for whom the use of communication tools such as e-mail, discussion boards and chat facilities help reduced feelings of isolation (Ottewill & Wall, 2002). Similarly, the asynchronous discussion environments are less threatening as they allow a sense of anonymity. Students who find the face-to-face tutorial too confronting are participating more in online discussions. Given its asynchronous nature, discussion boards also allow students more time for reflection and more time to express themselves. This can be particularly important for students who find writing a more difficult task—for example foreign language student. Finally, the nature of online learning media has supported more consideration of flexible learning practices that frees students and facilitators from the boundaries of location, as well as redefining some of the time restrictions, especially those traditionally imposed by attendance at lectures and tutorials.

A number of major studies into the effectiveness of learning technologies comparing student assessment results in face-to-face versus online learning environments consistently report no significant difference (Hiltz, 1998; Fabos & Young, 1999; Russell, 1999; Meyer, 2002; Neuhauser, 2002). Moreover, the advantages listed above can be more easily associated to the unique combination of attributes of the educational technologies used, which can influence learning if they support the appropriate cognitive processes (Salomon, 1979). However, the combination of attributes alone is not sufficient to ensure effective learning. The no significant difference phenomena strongly supports the argument that a greater focus on applying appropriate design principles based on sound educational theory will benefit students' learning in the online environment more than a consideration of the educational technology and communication media used (Clark, 1994).

## **Learning Principles**

### **Constructivism**

Constructivism is a theory of learning in which individuals construct their own meaning. It contrasts with the empty vessel notion whereby students could be filled by a knowledgeable teacher and a sound body of information. The implication with constructivism is that each student needs to go through an individual process of learning to enable their cognitive processes to link with and make sense of new information in relation to their existing understanding of the world (Kintsch, 1998). This brings into question traditional teaching practices such as lectures and teacher-centered seminars during which students may be passive recipients of information rather than engaged in active cognitive development. Effective learning, according to constructivist principles, demands a paradigm shift from teaching to a focus on learning. A growing body of evidence argues that constructivist approaches are appropriate for learning, particularly with regard to adults (Huang, 2002; Weasenforth, Biesenbach-Lucas & Meloni, 2002).

Social constructivism, a subset of constructivism, posits that through interaction with other people—either directly or via communication protocols such as written or spoken language—our cognitive structures are formed and shaped (Dewey, 1916; Piaget, 1973; Vygotsky, 1978) allowing the learner to actively learn and construct new meanings based on their prior knowledge and experience (Huang, 2002). Communication between and among

students, their facilitator and the content is thus vital to the meaningful construction of knowledge (Ernest, 1995). Social constructivism includes a range of learner-centered approaches including: social negotiation strategies: collaboration, authentic/experiential tasks, reflection, group assessments, etc.

#### **Critique of Constructivism**

The constructivist approach is not without criticism. Matthews (2003) questions some of the assumptions that underpin constructivist approaches on three counts. First, he contends that there is no empirical evidence to support the key notion that matching teaching and learning style has any effect on educational outcome. Second, Matthews argues there is an overstated claim by constructivists that contextualization is necessary for learning to occur. He states that constructivists 'reject a huge body of research on the importance of decontextualised learning, as anyone who ever played tennis, a musical instrument, or learned to drive a car will attest' (Matthews, 2003, p.58). Thirdly, Matthews does not accept the argument put forward by constructivists that drill, corrective feedback and the use of incentives inhibit the learning process. On the contrary he maintains that the evidence from the literature does not support the notion that external incentives should not be used to try and encourage learning. Matthews (2003) concludes that the literature supports the claim that increased instructional time and the use of external reinforcers increases student performance and that students can and do learn in decontextualised settings.

In contrast to Matthews cautionary approach, Elkind (2004) argues that the problem with constructivism is not that it is unsuitable or ineffective. Indeed, he argues that constructivism is the best educational philosophy that is currently available because it 'is generated by genuine pedagogical concerns and motivations' (Elkind, 2004, p. 307). Elkind conceptualises the problem as one of 'readinesses in teachers, curricular and society. He argues that when these three forms of readiness are in alignment, then the implementation of constructivist principles will be successful. Elkind argues that ICTs may provide the impetus for reform that will facilitate this readiness through bringing about this alignment of readiness in teachers, curriculum and society. Whilst generally supporting the adoption of a constructivist perspective, the development team took Matthews' critique as a reminder that a cautious approach should be taken when adopting this, as well as any other, perspective.

#### **Constructivism and Online Learning**

There are ample references in the literature to suggest that constructivism is well suited to the online learning environment and consequently we considered it to be appropriate for developing Management 100 as an online unit. Weasenforth, et al. (2002) emphasize the value of the interactive and distributed nature of online learning technologies in that they encourage and facilitate active collaborative construction of knowledge and the engagement of students in contextualized, authentic learning in a less controlled environment.

Wu (2003) and Weasenforth, et al. (2002) demonstrate how the application of social constructivist strategies and techniques in an online environment leads to effective learning. This led them to use electronic communication tools in the deployment of a number of teaching/learning strategies including structured interaction, authentic tasks, ordered questioning strategies and group assessment to enhance student experiences. Wu argues that training students in the use of electronic communication tools and the use of modelling effective behaviours, feedback and coaching also encourages effective discussion and learning. Wu concludes that the effective deployment of constructivist strategies in the electronic environment leads to effective learning.

Furthermore they contend that the online learning environment encourages thoughtful reflection and empowers students who then develop an ownership of their knowledge (2002). Huang argues that online learning technologies are breaking down the barriers of traditional distance education faced by students, particularly, the lack of interaction and communication. He concludes that, 'Constructivist principles provide ideas to help '... create learner-centered and collaborative environments that support critical reflection and experiential processes' (Huang, 2002, p.35).

The assumption underpinning the development of Management 100 is that, as an online unit, the learning principles-i.e. social constructivism-should be no different than for face-to-face students. However there is little to be gained by trying to imitate the traditional face-to-face teaching as the techniques required for effective facilitation in an on-line environment are quite different (Brower, 2003; Salmon, 2000). As such academics preparing and delivering online courses would benefit from the development of new facilitation skills (Blass & Davis, 2003) as they move beyond the 'sage on the stage' model (Bowles, 2004).

## Design and Planning

The considerations given to design for the online environment generally are very similar to those for any distance education programme. Teaching and learning processes must be integrated in order to anticipate and replicate the communication that is characteristic of effective learning, irrespective of environment. This may include: well-written materials; scaffolded support where learning problems are anticipated; learning outcomes that are well-mapped to learning materials, and; ample opportunities for feedback (Ngwenya, Annand & Wang, 2004).

Many instructional design and development models have been adopted from the software development industry where methods of project and design planning have been honed to a fine art. Some of the common stages that bear the scrutiny of time and success include: analysis, development, evaluation, implementation and improvement (Bowles, 2004). The order is not static as an overall principle of iteration of key steps offers the opportunity to refine and change the 'product' according to each cycle. Management 100 was designed in this fashion with the expectation that each semester will provide opportunities for evaluation and improvement.

The aim of the Management 100 design was to go beyond a traditional structure of teaching. Furthermore, the teaching and design team wanted to integrate principles of social constructivism into the unit to improve the 'poverty of pedagogical innovation' that characterises much web-based learning (Reeves, 2002, p.19). The following sections detail how social constructivism informed the design of the unit focusing on: student centred learning, social interaction, authentic tasks, scaffolding support and design support.

### **Student-Centred Learning**

Applying social constructivist theories in the learning environment has seen a significant shift from teacher to student-centred learning. Twigg (2001) describes this best as providing students with a wide variety of online resources and learning opportunities from which they can 'pull' what they need at a time in their learning that is most appropriate to them. This is in direct opposition to the traditional teaching method where lectures, tutorials and seminars were 'pushed' out to a group of students who were all deemed to be at the same place in their learning requirements. This does not mean students are given free rein to do what they like. It is still important to provide clear boundaries, establish expectations and clearly communicate the success criteria for learning and assessment.

Management 100 provides a clear unit structure and framework that delineates administrative information, assessment requirements and study materials. The unit schedule is the central navigation screen in Management 100 from which students can access any content, resource, learning activity or assessment item, according to a weekly structure. This provides a map as to what learning outcomes are required per module. From these learning outcomes, students are provided with a range of learning resources and tools they can choose from to help achieve their weekly goals. This ensures adequate flexibility for learners while keeping them on track. The online resources and learning activities attempt to cover a range of learning styles and activities—brief notes that overview theoretical components, newspaper articles providing case studies journal articles that stimulate critical thinking about current theoretical debates, online quizzes to test for key concept understanding, and individual and group-work tasks.

### **Social Interaction**

Social interaction has become a common theme in educational theories due to the crucial role it plays in the development of cognitive structures and the way we think (Ernest, 1995; Vygotsky, 1978). Management 100 students are divided into working groups at the beginning of the semester and encouraged to get to know each other through ice-breaker activities. This allows them to learn to use the communication tools while establishing relationships with peers. These groups are required to work together throughout the semester and are encouraged to support each other as an online community—a feature supportive of the online learning process (Brook & Oliver, 2003). Each group has a discussion board, virtual chat environment and file sharing facility. The whole class also work together in the main discussion board. Communication is also available with tutors and the unit controller via email and discussion board allowing students to decide when they need help and input.

### **Authentic Tasks**

One of the major arguments of constructivist theory is that learning is achieved by the individual who constructs meaning and new knowledge structures internally. This process relies on cognitive functions that link new inputs to

existing knowledge structures or mental models (Kintsch, 1998); the greater the convergence of new elements with existing mental models and greater stability in making meaning of new concepts. From a cognitive perspective, engaging in authentic tasks means that existing mental models are activated as a framework to help understand the new concepts being applied. The learning activities in Management 100 require students to do authentic tasks based on experiences they would encounter in the work force. These learning experiences develop in complexity and become more ill-defined, requiring more creative problem solving and offer increased real-world relevance. For example, one of the major assessment tasks in Management 100 uses a case study of the Melbourne Hotel located in Perth, Western Australia. This assessment requires students to form groups of three or four and take on the role of a management team charged with addressing the issues of recruitment, retention, training and motivation of staff. The students are provided with detailed background information provided by the hotel management from which they then develop their report and recommendations. In addition, students are required to develop a group contract that details their expectations of group behaviours etc. and undertake a self and peer assessment of their own and their group members' performance. Students are also assessed on the quality of their participation in online discussions and the quality of their self/peer assessment.

#### **Scaffolding Support**

Students enrolling for Management 100 are first year undergraduates who have self selected for distance education mode. Most either have never studied at tertiary level, or may have completed a first semester. Either way, the development of their study skills and technical know-how of the online tools will require some support.

Curtin Business School uses a third-party online learning management system called Blackboard. This system includes standard online educational tools— asynchronous (discussion board, email, document retrieval) and synchronous (chat) tools—capable of facilitating high levels of interactivity. Students must be proficient at using these tools if they are to learn effectively. To help students learn to use the discussion board, each learning activity that occurs in this environment has been designed to introduce new skills and functions to students, thus increasing the success of students to work constructively together. Clear rules of engagement have also been written so students know the function of each tool and the standards that they need to adhere to in their communications (for example, postings should be kept to less than 300 words and follow the discussion board rules). Similarly, professional and study skills taught as part of the unit, for example, group work, reporting, and summarising have also been identified and introduced in varying levels of complexity and difficulty.

At Curtin University, online learning as an attendance mode is restricted in its flexibility to operate within the standard study periods. In other words, students enrolled in a semester period must start and finish their studies at the same time as students studying on campus. This means that students could be given tasks to do in groups, pairs and as individuals, ensuring optimal chances of peer support and collaboration. This was seen as an important structure given that the students are mainly in their first year and would require more scaffolding and support in their studies. This is more manageable if students study at the same pace.

#### **Design and Support**

To prepare new units to be available fully online, the Curtin Business School provides unit controllers with instructional design, graphic development and programming support from its Online Teaching and Learning (OTL) Facility. Whilst graphic development and programming are vital steps in the development of a quality online unit, their value is one of technical application, which is outside the scope of this paper. The design support issues addressed in this section relate to the instructional design processes applied in the development of Management 100 as an online unit with the aim of illustrating their alignment to, and application of, the epistemological and pedagogical theories discussed earlier in this paper.

The online learning environment is capable of supporting rich forms of interaction and collaboration and, as such, is able to support the principles of social constructivism (Jonassen & Reeves, 1996). The task of the instructional design process for Management 100 was to establish opportunities for meaningful interaction with facilitators, peers and content, thus improving the chances for the social construction of knowledge.

The instructional design phase begins with planning. At this stage there is no consideration for the online environment, only for sound educational principles. The planning phase is a mapping process. Firstly, the unit is split into modules or logical sections of unit content. Outcomes are specified for each module using Bloom's taxonomy (Figure 1) to clearly articulate the level of required cognitive performance of students. Bloom's

taxonomy outlines five key levels of cognitive processing and development—each, in ascending order, demanding more advanced cognitive skills and building on the previous level.

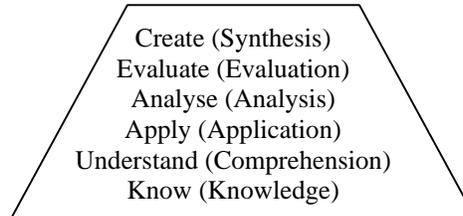


FIG. 1: BLOOM'S TAXONOMY (ADAPTED FROM: KRATHWOHL, D.R. (2001). *LEARNING TO TEACH*. (5<sup>TH</sup> ED). MCGRAW-HILL. BOSTON, USA).

Recognising the level of cognitive processing for outcomes guides how the learning activities, assessment, feedback, learning resources and materials are designed. For example, drill and practice learning activities are appropriate if a learning outcome only requires recall of information, but would not be a suitable activity if students were required to evaluate or synthesise ideas.

The aim of this process is to map the key components of the learning design, recognising that the required outcome affects all the learning components, especially the learning activities, self-evaluation and assessment. It is critical that the learning activities allow students to perform at the cognitive level specified in the outcomes, and that the assessment evaluates students' performance at that same level. A template is used to aid this process. Table 1 is an excerpt from the Management 100 template:

TABLE 1: ACHIEVING THE PLANNED OUTCOMES FOR MANAGEMENT 100

	Module	1		
		Outcome 1	Outcome 2	Outcome 3 etc...
A	Outcomes	Apply knowledge and understanding of team-working to own experience. Students produce a critical reflection on their own team-working skills and abilities.		
B	Cognitive level	Application Analysis Evaluation		
C	Learning materials	Robbins, Bergman, Stagg and Coulter (2003) <i>Introduction to Management</i> , Chapter 11 Gordon, J. (2002), 'A perspective on team building', <i>Journal of American Academy of Business</i> , Cambridge, Sep, pp.185-188		
D	Learning activities	As you read the article by Gordon (2002) <i>A perspective on team building</i> , answer the following questions: 1. List the characteristics of an effective team. 2. Briefly describe a 'team-able person'. 3. List the personal traits a 'team-able' person has. 4. Write a short (200 word) report examining the extent to which you are a team-able person. 5. List the skills you need to develop to be a better team leader. 6. Post your answer to question on the Main Discussion Board and comment on the postings of other students.		
E	Feedback	From student peers and facilitator		
F	Assessment	Feeds into major assignment 1		
G	Do A, B, D & F align?	✓		

The aim of row ‘G’ is to actively check to ensure that the key learning components are aligned. In the planning of Management 100, development of this document allows easier review of the learning activities required. Once the learning activities are established it is possible to then review which online features and tools students will use.

The next step was to map the skills required in Management 100 according to their associated learning activity. This way each skill could be reviewed according to when it first was required of students, the unit controllers expectations for success criteria were made explicit, and the unit controller could decide where in the online unit the instructions, ‘rules’ and success criteria for each learning activity could be articulated to the student (Table 2).

TABLE 2: IDENTIFYING SKILLS AND DEFINING SUPPORT REQUIREMENTS FOR EACH LEARNING ACTIVITY.

Module	1
	Outcome 1
A Outcomes	Apply knowledge and understanding of team-working to own experience. Students produce a critical reflection on their own team-working skills and abilities.
B Cognitive level	Application Analysis Evaluation
C Learning materials	Robbins, Bergman, Stagg and Coulter (2003) <i>Introduction to Management</i> Chapter 11 Gordon, J. (2002), ‘A perspective on team building’, <i>Journal of American Academy of Business, Cambridge</i> , pp.185-188
D Learning activity	As you read the article by Gordon (2002) <i>A perspective on team building</i> , answer the following questions: 1. List the characteristics of an effective team. 2. Briefly describe a ‘team-able person’. 3. List the personal traits a ‘team-able’ person has. 4. Write a short (200 word) report examining the extent to which you are a team-able person. 5. List the skills you need to develop to be a better team leader. 6. Post your answer to questions 4 and 5 on the Main Discussion Board and comment on the postings of other students.
Skill(s) required	Critical reflection Write succinctly
Assumed level of current student skill*	Basic
Scaffolding required? (Y/N)	Yes—First weekly learning activities will be submitted to peers for peer assessment according to the success criteria. Tutor will facilitate to ensure groups discuss all key aspects.
Your success criteria	Highlight the critical factors in being able to work in a team. Show understanding of theoretical perspectives from weekly readings. Explain arguments logically and coherently Write clearly, efficiently Answer should be grammatically correct
Location in materials of your success criteria	In Module 1, under the description of the learning activity Generic points (2-5) will be highlighted in Unit Outline under section ‘Success criteria for written activities’
E Feedback	From student peers and facilitator
F Assessment	Feeds into major assignment 1
G Do A, B, D & F align?	✓

\*novice, basic, intermediate

Once the full planning process has been completed, the document acts as a valuable blueprint when the unit needs to be updated, submitted for audit or re-designed for a different student group or learning environment. As a foundation unit, Management 100 attracts hundreds of student enrolments each year. Equitable instructional methods and learning experiences are essential across a number of learning environments (face-to-face, distance

education (paper-based), fully online, off-shore mixed mode, etc.). This model of design allows easy review of learning components that may be modified to make best use, or avoid the pitfalls of different learning environments, such as online. It also highlights areas where academic staff may require training for use of educational technologies or new teaching/facilitation strategies.

## **Discussion**

This development project has illuminated several key pedagogical issues relating to elearning. The convergence of emerging technologies, growing demand, pedagogical development and restricted budgets identified by Bonk (2004a, b) have placed increasing demands on universities and presented many challenges. There is a need to examine the effectiveness and desirability of applying constructivist perspectives to provide evidence on which further development can proceed. There is also the issue of 'authenticity' in learning activities and assessment. Further development of the idea and scope of 'authenticity' in management learning is needed as well as more critical assessment of its value.

There is also a need to further investigate the question of interaction and group work in an online environment. One of the key professional skills taught and assessed in Management 100 is team working. This meant pushing the pedagogical and technical boundaries of the online learning environment. The main pedagogical issue was to ensure that the facilitator had the skills to encourage student participation whilst ensuring this participation remains within the rules laid-down for online interaction. The main difficulties came in the technical area. The technical efficacy of the software platform being used was a critical factor in the delivery of the unit. Management 100 required dividing up the students into groups of around 20 then again into sub-groups of three or four. The Blackboard learning management system does not lend itself easily to this, meaning that whilst it was technically possible to divide the students into groups as required, navigating into the group areas is not as seamless as required. Furthermore, to use the 'chat' tools students had to download software which was time consuming (in future semesters this will be mailed out to students on a CD before that start of semester). It also took the student three weeks to fully come to grips with the environment and the expectations of participating in online discussion. This meant that much of the facilitation was regarding the use of discussion boards rather than tackling the weekly study topics.

In addition to the broad pedagogical and technical issues, the development of this unit raised a number of organisational issues that are of general relevance. The development of Management 100 illustrates how undertaking such an exercise frees-up the learning environment and provides greater support for the development of important practical and academic knowledge and skills. Students studying externally are no longer tied to a rigid set of paper-based learning activities, isolated from other students simply because of their mode of enrolment. The development of the unit also allowed the design of learning activities that encouraged and supported critical thinking through the use of scaffolded learning activities, situated case studies, and discussion.

The act of transforming the unit from a paper-based format to an electronic form has brought advantages in terms of ensuring the quality of the unit in that it has catalysed the adoption of continuous improvement. One of the direct benefits of the change has been a reduction in the attrition rate from 50% to 25%, signalling that perhaps students have found the unit motivating and engaging and receive appropriate peer and teaching support. The unit is now under constant review and can be changed easily and without large scale re-vamping of printed materials. Also the electronic version acts as a repository of knowledge which can be built on through subsequent iterations. The cumulated knowledge and expertise of the team of staff who contribute to this and subsequent re-designs can be preserved and improved.

Now that this introductory management unit has been implemented in an online learning mode for external students, the unit and the model for development will be evaluated during Semester Two, 2004. This evaluation will contribute to the further development of not only the unit itself but also the design and development model. The experiences gathered here will be used to inform and improve the design and development of further units that are being reviewed for electronic delivery to distance education students. These experiences will also be used to enhance the quality of learning in units offered internally and overseas. In many respect it presents an opportunity

to develop new models of teaching and learning in offshore locations. In sum, the review of Management 100 marks the beginning of a process that will transform the educational profile of the School of Management.

## Conclusion

The experience of developing and implementing this unit taught those involved that electronic learning is more than just a way of transferring knowledge. This development of Management 100 as an online unit illustrates the possibilities presented when good design principles are applied to providing effective integration of learning technologies with engaging pedagogy. Electronic learning is an effective method of adding value to learning programs, particularly with regard to bringing external students into a learning community. This has the potential to allow those students opportunities to develop new knowledge in ways that were previously not possible. Through an effective design process a new learning culture has been established amongst external students. This approach is not a technologically sophisticated way of delivering a pedagogically mundane set of learning activities as some detractors of elearning might argue. Instead, a rich interactive environment has been created in which students and academics become part of a learning community. An environment such as this cannot be created by a technically adept academic working alone nor can it be achieved through using technicians simply putting existing face-to-face courses online without academic input. What is required for the successful development and implementation of an online unit is a team of people with complementary skills ranging from subject and pedagogical expertise through technical specialisation, proof reading, organisational ability, etc. The experience of developing and implementing Management 100 as an online unit also highlighted the need for more research into facilitating and assessing effective group work in this environment.

Getting ahead of Bonk's 'perfect storm' requires the academic to be but one member of a team of highly skilled and qualified people. They must also be backed-up by an appropriate, reliable and fully supported technological infrastructure. This depends to a large extent on university leaders and management to make the commitment to online learning to ensure that the organisation is fully prepared to make a successful leap into the new environment. Universities can then effectively use ICTs to enhance the learning experience of students. Students are progressively developing more sophisticated IT skills and their expectations of education are undergoing a concomitant shift and online learning is becoming an integral part of learning, particularly at higher education where students are expected to develop higher learning skills and independent learning. As student expectations of online learning rise, the imperative is to ensure that online course development is based on sound pedagogical and design principles.

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# Complementary Use of Web Sites for Learning

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## Abstract

In recent years, web sites are increasingly used as a teaching medium. When compared to the traditional classroom environment, the use of web sites can significantly improve the quality of interaction between instructors and students, and thus enhancing the learning effectiveness. Although most of the recent theoretical development is relevant to the pure on-line teaching, many instructors use the web as a teaching tool to complement the instruction in the traditional classroom setting. This study focuses on the interactive use of web sites to support the learning process where most of the instructions take place off-line. Based on a review of relevant literature, we first propose the online interactivity as a multidimensional concept consisting of learner control, two-way communication, and synchronicity. We then hypothesize that the interactive nature of web sites leads learners to a flow state and helps them to have stronger perception that web sites successfully complement the classroom instruction. We also hypothesize that the flow state and the complementariness of the web use enhance both self-efficacy and satisfaction of learners.

To test the hypotheses, we surveyed college students who are taking or have taken at least one course where the instructors use web sites to complement the offline classroom instruction. We collected 319 responses from students enrolled in four universities and analyzed the data using the statistical package, SPSS. The statistical results show that all the hypotheses are supported. The implications of this study can be summarized as follows. First, the complementary use of Web sites is intimately associated with learner self-efficacy and satisfaction. Therefore web sites can make significant contribution in improving the quality of instruction even when they are used as just a part of the whole instruction. Second, in spite of its partial use to complement the off line instruction, interactivity of web sites can enhance self-efficacy and satisfaction for learners through the online flow state and the stronger perception of complementariness.

## Introduction

As the Internet becomes more prevalent in society, it is no wonder that it is also widely used in schools. This paper is particularly interested in the use of the Web by the instructors to improve the effectiveness of their teaching where the main instruction takes place in traditional classroom settings. The use of the Web is known to help the learners experience a higher quality of learning and thus help them achieve a higher level of performance (Arbaugh, 2004). This is attributed to the Web-specific features such as synchronicity and interactive responsiveness which the classroom instruction can hardly offer to a sufficient degree. Instructors can place lectures notes and course-related information on the web, and can also exchange ideas with learners. Learners can control the pace and can have interactive communication with the instructor and the peers as well (Leidner & Jarvenpaa, 1995). Exploiting these features of the web, the instructors can utilize it in such a way that it can complement the classroom teaching which lacks in its interactivity (Parikh & Verma, 2002; Garrison & Kanuka, 2004).

The complementary use of the web, often termed as “blended learning,” is essentially somewhere in the middle between e-learning and classroom-based learning, and represents the increasingly prevalent practice of the convergence of Web-based learning with face-to-face learning approaches. Although this convergence of the learning approaches has a volatile impact on traditional campus-based institutions of higher education (Garrison & Kanuka, 2004; Parikh & Verma, 2002), little is known about what determines the effectiveness of the blended learning.

The purpose of this study is to examine the effectiveness of blending online and offline learning where online learning plays the role of complementing what is deficient in the offline classroom-based learning process. This study will be most useful to instructors who use or intend to use the web in a complementary manner. Specifically we will explore multidimensionality of interactivity and analyze the relationship between the

interactivity and the outcomes of “blended learning.” We will empirically demonstrate that perceived interactivity is positively related to the level of complementariness and flow, both of which in turn yield positive learning outcomes. The research findings here are expected to deepen the understanding of the complementary use of web sites in the high-education settings.

## **E-Learning**

E-learning relies on Web technologies in the process of teaching and learning. Closely related terms include computer-assisted instruction, web-based virtual learning, or online learning. CAI primarily serves as reliable and consistent delivery sources of course material (Leidner & Jarvenpaa, 1995). Virtual learning environments is defined as “computer-based environments that are relatively open systems, allowing interactions and encounters with other participants” and provides access to a wide range of resources (Wilson, 1996, p.8). The advances in web technologies lead to development of a more interactive communication system in e-learning (Leidner & Jarvenpaa, 1995). E-learning provides high levels of control, supports participant contact and interaction throughout the learning process, and provides an opportunity to restructure the learning experience (Piccoli, Ahmad, & Ives, 2001). Learners are able to communicate more easily with the instructor and other learners as well. This interactive nature of the web technology provides learners with a tighter control over the sequence of information presented to them and leads them to more active participation in class. As the instructor communicates interactively with learners, the learning tends to become more effective (Bannan-Ritland, 2002; Bluemink & Jävelä, 2004; Garrison & Kanuka, 2004; Osguthorpe & Graham, 2003).

## **Complementary Use of Websites**

The blended learning as teaching methodologies defines the thoughtful integration of classroom face-to-face learning experiences with online learning experiences (Kamel, 2000; Osguthorpe & Graham, 2003). This teaching methodology combines strengths of both online and offline teaching. For example, shortcomings of the traditional classroom teaching include lack of time flexibility, limits in space and infrastructures. Furthermore, it is instructor-centric because only limited amount of interaction and communication is allowed. The instructor transfers knowledge and information to multiple learners by one-way communication, and learners are passive participants without control over the contents they learn. On the other hand, the strength of online learning is that learners can interact with instructors and with other learners. Learners can control the contents and the pace of learning. Hence, online learning can be viewed as learner-centric learning environments. However, the online learning process is essentially that of self-service and occurs in isolation from others. For that reason, effective learning may not be realized unless learners have relatively a higher level of motivation.

Overall, the current practice of using the web for instructional purposes has not empirically evidenced (Piccoli et al., 2001). Most of the past studies in this area of research remain at the conceptual level (Garrison & Kanuka, 2004). The purpose of this study is to empirically demonstrate that the complementary use of the web or the blended learning yields higher level of learner satisfaction and self-efficacy. As will be discussed in detail, we hypothesize a positive relation between the perceived interactivity of the web and the perceived level of complementariness and flow. We also hypothesize that the higher level of complementariness and flow lead to higher level of satisfaction and self-efficacy.

## **Interactivity**

As a central characteristic of on-line media, interactivity has important implications for user’s behavior. Definition of interactivity can vary depending upon what is deemed important. Rafaeli (1988) defines interactivity as the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions. Therefore, Rafaeli (1988) recognizes interactive communication as interactivity in the communication sequences. Steuer (1992) and Novak, Hoffman and

Yung (2000) also defines interactivity in terms of the communication process. Steuer (1992) recognizes vividness, depth, and speed as the features of interactivity in the communication sequences. Similarly Novak, Hoffman and Yung (2000) look at interactivity during the communication process, but focus on the time dimension of interactivity – length of time elapse between human and computer interactions in computer-mediated environments.

Many studies explore the multi-dimensional nature of interactivity. (Liu & Shrum, 2002) classifies interactivity into three types; user-user, user-computer, user-message. These three types of interaction are then measured along the three dimensions of interactivity – two-way communication, synchronicity and control. (McMillan & Hwang, 2002) also view interactivity as a multi-dimensional concept consisting of user control, two-way communication, and time. Their study is confined to the interactive communication with the web and participants. Piccoli et al. (2001) propose that the interactivity can be represented by the learning experience in a technology-mediated setting. They measure interaction in terms of timing, frequency and quantity of interactions in online learning settings.

Although there appear to be many different definitions of interactivity, its dimensions tend to converge to the following three: time, user-control and two-way communication (Liu & Sally, 2002; McMillan & Hwang, 2002). Likewise, Bluemink & Jävelä (2004) in their recent study on e-learning have focused on analyzing student's interaction in web-based learning environments, using these three dimensions. The present study also utilizes the three dimensions of interactivity and attempt to explore the relationship between each of the three interaction dimensions and the learning outcomes through the mediating effects of complementarity and flow.

## **Flow**

The flow has been proposed as important for understanding consumer behavior on the World Wide Web, and as a way of defining the nature of compelling online experience (Novak et al., 2000). Flow is characterized by an experience of intense concentration and enjoyment (Csikszentmihalyi, 1975, 1990). Novak, Hoffman and Yung (2000) presume that the flow results from interactions – both the exploratory, and often time-consuming, use of the computer and the person's sense of being in control of the computer (Ghani & Deshpande, 1994). Under the flow state, people become absorbed in their activities. The state of flow stimulates the user to participate in web activity with spontaneous motivation. As the result, user performed it successfully and satisfied (Massimoni and Carli, 1988). Therefore, interactivity of the web in blended learning environments is also expected to increase the likelihood of the flow state for the learners, which would then enhance their satisfaction and academic performance.

## **Self-Efficacy**

Self-efficacy was introduced by (Bandura, 1977), who defined it as “how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences.” This concept applied to a variety of domains since self-efficacy is known to have a strong positive relation with outcomes. Therefore self-efficacy is an important motivational factor in learning and has been found to contribute to better learning performance (Liu & Shrum, 2002).

In the present study, two types of self-efficacy are considered. The first is concerned with using the computer and web technologies whereas the second is related to learning the subject materials. The first or computer self-efficacy can be proposed as an antecedent to the successful e-learning. (Ong, Lai, & Wang, 2004) define computer self-efficacy as “an individual's perceptions of his or her ability to use computers in the accomplishment of a task rather than reflecting simple component skills.” (Compeau & Higgins, 1995) suggest that the belief that one has the capability to interact with a given technology plays a significant role in users expectations and performance.

Since blended learning involves using the web, computer self-efficacy is expected to play an important role in determining the performance of blended learning. We consider subject self-efficacy and satisfaction as the outcome variables. Especially subject self-efficacy is highly likely to be influenced by the computer self-efficacy.

## Development of Hypotheses

Our research model attempts to establish the relationship between interaction and learning effectiveness when the web is used as complement to the traditional classroom teaching. In particular, we consider three variables for the interactivity based on the literature: user control, two-way communication, and synchronicity. This study investigates the role of the interactivity in improving learning effectiveness in the context where the web sites are used to complement classroom instructions by providing the convenient and effective communication medium. Learning going in the process, investing any attributes to be related more to the complementariness and the flow in learning process. Learning outcome variables consider that typically form the foundation of educational methodology research. Most of the research discussed thus far examines one or more of these learning outcomes variables.

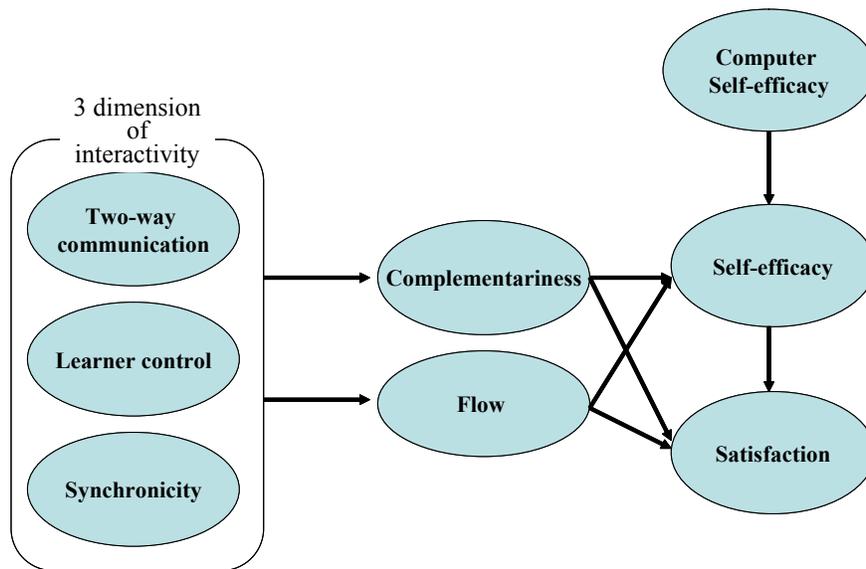


FIG. 1: RESEARCH MODEL

- H1: Two-way communication is related positively to flow.
- H3: Learner control is related positively to flow.
- H5: Synchronicity is related positively to flow.
- H2: Two-way communication is related positively to the complementariness of the web site use.
- H4: learner control is related positively to the complementariness of the web site use.
- H6: Synchronicity is related positively to the complementariness of the web site use.
- H7: Flow is related positively to learner's self-efficacy.
- H: Flow is positively related to learner satisfaction.
- H8: The complementariness of the web site use is related positively to learner's self-efficacy.
- H9: The complementariness of the web site use is related positively to learner's satisfaction.
- H10: Computer self-efficacy is related positively to learner's self-efficacy.
- H11: Self-efficacy is related positively to learner's satisfaction.

## Research

### Measure

To ensure content validity of the scales, the items must represent the concept about which generalizations are to be

made. Items selected for the constructs were adopted mainly from previous research. Respondents were asked to indicate the extent of agreement with each statement in a measure using a seven-point Likert-type scale. Five doctoral students in MIS area who are in their dissertation stage were asked to review the questions for wording and item importance. Further, they examined the extent to which average students would possess the knowledge necessary to provide appropriate responses. The items are listed in Table 1.

TABLE 1: MEASUREMENT OF VARIABLES

	<b>Definition</b>	<b>Measurement</b>
<b>Learner control</b> (Miheim & Martin, 1991; Piccoli et al, 2001; McMillan & Hwang, 2002)	The degree of discretion that students can exert over the pace, sequence, and content of instruction in a learning environment.	Chose the material that is personally relevant Chose the sequence of contents that learner need Chose the pace of contents that learner understanding Enable totally control the contents, pacing, sequence.
<b>Two-way communication</b> (Piccoli et al, 2001; McMillan & Hwang, 2002)	Interactive communication with instructor and among learners	Enable comfortably interactive communication with instructor Enable make feedback and Q & A well with instructor Enable comfortably communication with learners Enable actively communication with learners.
<b>Synchronicity</b> (Piccoli et al, 2001; McMillan & Hwang, 2002)	The perception of the extent of response speed at which message exchange.	Loads to fast the material on the web site Loads to slow the material on the web site Immediate answers to questions Accepted my the claims postulated
<b>Complementariness</b> (development)	The extent of useful combination that online	Web site is a complement to interactivity The material on the web is helpful to supplement Web site is related to the instruction of offline Web site a helpful to understanding the off-line class. Totally, web site has a role of complementary in the off-line class.
<b>Flow</b> (Hoffman & Novak, 1996)	The extent of concentrative sate of a situation.	Concentration my attention upon learning on the web absorption oneself to learning on the web enthusiasm about learning on the web Immersion in learning on the web
<b>Computer self-efficacy</b> (Gist, 1987; Compeau et Higgins, 1995)	The belief of his or her ability to complete a task using computers	To extent of easy to use the computer without assistant people To extent of easy to use the computer without the Help function To extent of easy to use the computer when I had seen someone else uses it before truing it. To extent of easy to use the computer when someone showed me how to do it first.
<b>Learning self-efficacy</b> (Bandura, 1997)	The belief of his or her ability to perform learning as new instruction.	To extent of belief successful perform learning in this environments To extent of enable comprehensive contents in this environment. To extent of confidence oneself for learning outcomes. To extent of conviction of the overall contents in this environments. If someone showed me how to do it first
<b>Satisfaction</b> (Wang, 2003)	The extent of satisfaction of the using web site for complementing classroom.	Overall satisfaction Helpful to understanding the learning. Useful instruction to perform the learning. Good experience Recommend to others.

## **Subjects**

The data for this study were collected through questionnaires using the survey of the students of department business that use complementarily the website or the internet community for effectively enhancing the business classroom at the 4 Universities near to Seoul in Korea.

Questionnaires were surveyed to 400 students of university. A total of 348 responses were received. 65 questionnaires were eliminated due to missing data, leaving a final sample of 319. Questionnaires were returned by 319 students, representing a response rate of approximately 83%. Most respondent consisted of university student (98%). They had to use internet over average 5years (27.9%), used internet used over 10 hours in a week (14.7%). Males represented 69% of participants while 29.5% of the participants were females. The subjects who took part in the data collections were highly comparable in these demographic dimensions.

## **Results**

### **Data Analysis of Measurement Validity**

We evaluated the instrument's validity in terms of reliability and construct. Reliability was examined using Cronbach's  $\alpha$  -value. All constructs exhibited an  $\alpha$  -value greater than 0.8, exceeding the common threshold value recommended by Nunnally (Nunnally, 1986), thus passing the test of construct reliability.

All variables were subjected to separate principal component analysis, followed by Promax with Kaiser Normalization rotations. Results indicated the presence of eight constructs (74.276 % variance explained) were extracted with eigen values exceeding 1.0 that is exactly equal to the number of constructs specified in the model. As shown in Table 2, there no cross-loading items. Additionally, items intended to measure the same construct exhibited prominently and distinctly higher factor loading on a single construct than on other constructs. This result suggested that our instrument had encompassed satisfactory convergent and discriminate validity.

TABLE 2: TEST OF VALIDITY AND RELIABILITY

	Satisfaction	Complementary	Flow	Computer self-efficacy	Learning Self-efficacy	Synchronicity	Leaner control	Two-way communication
SAT4	0.880							
SAT5	0.861							
SAT1	0.860							
SAT2	0.847							
SAT3	0.842							
COMP2		0.928						
COMP4		0.887						
COMP3		0.812						
COMP1		0.774						
COMP5		0.721						
FLOW3			0.946					
FLOW2			0.942					
FLOW4			0.885					
FLOW1			0.810					
CMSELF3				0.884				
CMSELF4				0.860				
CMSELF2				0.763				
CMSELF1				0.762				
SELF3					0.862			
SELF4					0.844			
SELF2					0.745			
SELF1					0.666			
SYN2						0.847		
SYN1						0.827		
SYN3						0.803		
SYN24						0.757		
LC3							0.871	
LC3							0.818	
LC4							0.799	
LC1							0.778	
TWC3								0.891
TWC4								0.887
TWC2								0.715
TWC1								0.694
<b>Eigen value</b>	11.403	2.768	2.589	2.205	2.146	1.597	1.4449	1.097
<b>Variance</b>	33.538%	8.141%	7.613%	6.486%	6.313%	4.697%	4.261%	3.227%
<b>Cronbach's <math>\alpha</math></b>	0.933	0.896	0.923	0.845	0.832	0.843	0.843	0.826

## Model Test

To test hypotheses we conducted multiple regression analyses and correlation using the SPSS 12.0. Descriptive statistics and correlation coefficients are shown in Table 4. one-tailed Pearson correlations were computed for the 11 hypotheses. Correlations have provided meaningful findings and were preferred to multiple regressions because the social scientists have recommended that there be predictor variable for conduction multiple regression. The relation of variables has the significantly positive relation.

TABLE 3: PEARSON CORRELATION MATRIX

	Learner control	Two-way Communication	Synchronicity	Flow	complementary	Learning Self-Efficacy	Computer Self-Efficacy	Satisfaction
Learner control	1							
Two-way Communication	0.145(**)	1						
Synchronicity	0.194(**)	0.331(**)	1					
Flow	0.250(**)	0.208(**)	0.260(**)	1				
complementary	0.337(**)	0.273(**)	0.418(**)	0.284(**)	1			
Learning Self-efficacy	0.396(**)	0.286(**)	0.349(**)	0.413(**)	0.540(**)	1		
Computer Self-efficacy	0.196(**)	0.258(**)	0.219(**)	0.198(**)	0.419(**)	0.419(**)	1	
Satisfaction	0.335(**)	0.265(**)	0.448(**)	0.386(**)	0.686(**)	0.644(**)	0.433(**)	1

(\*\*) p<.001

Multiple regression using ordinary least squares having stepwise option tested each hypothesis. The result can be seen in Table 5. It shows that the data support all hypotheses. The multiple regression revealed that the interactivity variables were significantly positive related to the flow,  $F(16.882)=14.419$ ,  $P<.001$ . The regression model explained 11.3% of the variance in flow. It shows that the data support H1, H3 and H5. Regressing the interactivity variables and complementariness showed significant positive regression,  $F(33.169)=36.124$ ,  $P<.001$ . The regression model explained 25.1% of the variance in complementariness. It shows that the data support H2, H4 and H6. There is the regression analysis that the complementariness, flow and computer self-efficacy with learning self-efficacy positively effect on the learning self-efficacy,  $F(56.912)=69.031$ . The regression model explained 39.3% of the variance in learning self-efficacy. It shows that the data support H7, H8 and H10. The Regression analysis with flow and complementariness were performed using the satisfaction measures as dependent variables. The regression showed statistically positive significant,  $F(392.472)=146.931$ ,  $P<.001$ . The regression model explained 39.3% of the variance in satisfaction. It shows that the data support H9 and H11. The scatter-plot of the standardized residuals against the standardized predicted values shows that there is no apparent change in the variability of the residuals, thus suggesting the absence of heteroskedasticity. A visual examination of the normal probability plot of the residuals of the dependent variable suggested that they were normally distributed (Chatterjee et al., 2000). The VIF (variance inflation factor) and tolerance value indicate the multicollinearity. The VIF has over 2 and tolerance has closer 1. Thus the dependent variables are effected the muticollinearity.

TABLE 4: MULTIPLE REGRESSION ANALYSIS

Dependent	Variables	Beta	T.	Sig.T	Tolerance	VIF
Flow (R <sup>2</sup> =0.113)	Two-way communication	0.054	2.112	0.035	0.883	1.132
	Learner control	0.052	3.653	0.000	0.955	1.047
	Synchronous	0.061	3.192	0.002	0.868	1.152
Complementariness (R <sup>2</sup> =0.251)	Two-way communication	0.114	2.380	0.018	0.879	1.138
	Learner control	0.241	6.279	0.000	0.957	1.045
	Synchronous	0.342	6.279	0.000	0.869	1.151
Learning Self-efficacy (R <sup>2</sup> =0.339)	Flow	0.288	4.234	0.000	0.913	1.095
	Complementary	0.398	0.379	0.000	0.785	1.274
	Computer self-efficacy	0.208	5.779	0.000	0.817	1.224
Satisfaction (R <sup>2</sup> =0.582)	Complementary	0.516	10.753	0.000	0.704	1.419
	Flow	0.112	2.625	0.009	0.634	1.577
	Self-efficacy	0.367	7.625	0.000	0.822	1.217

\*: P&lt;0.05

Interactivity as the characteristics of media influence to the complementary course and to learner concentrates the online course. That result increase the learner oneself pride to can bring to successful performance. Learner would be highly satisfied the learning to the complementary web site in offline learning process. The finding of the flow and the complementary represented the relation with interactivity. The two-way communication positively affects the flow in learning process and synchronous effect the complementary. The dependent variables are the satisfaction of complementary courses and the self-efficacy.

## Discussion

A growing number of college professors choose the web site to make up for what is hard to be offered through traditional classroom teaching. This study provides empirical evidence that the web as a complementary teaching tool lives up to what is expected by the instructors. The survey results show that a high perceived interactivity of the web makes the learners a stronger perception of complementariness. Our research context considered the flow and the self-efficacy for investigation the effect to the online medium in internet learning process. The flow reflects the learner's cognition of interactivity and the self-efficacy is related to the learner's motivation for improving the performance.

Without understanding the interactivity, it would be difficult for learner to realize the benefits of this new form of learning. It's feature based thoroughly on interactive communication (Bluemink & Jävelä 2004; Piccoli et al., 2001; Webster & Hackley, 1997). Our result shows that the interactivity has positive attitudes toward the complementary use of web site and the flow in classroom. The synchronicity among the other attributes of interactivity more effect to the complementary course and the learning experience. Because the complementary learning offer to learner as the simple asynchronous text-based learning in online, learner has less learner control and two-way communication than the multimedia online learning and they know well the online environment offered. However the synchronicity in our research is the response time that learner want, need not immediately response. We have the anxiety for use the new something.

We consider carefully the belief the one's ability for perform it. Because of our research context considered using the web technology and the new teaching method, we proposed the computer self-efficacy and the learning self-efficacy. The computer self-efficacy would be the motivation to use the new teaching method. The authors ascribe these results to the perception by students in the virtual learning environment that they had to work harder than usual. In general, when individuals are confronted with a new technology-intensive learning environment, they tend to have negative attitudes that lessen, but don't entirely disappear, over time (Wetzel et al. 1994). The hypothesis tested is the positive relation and the other the complementary and the flow. The sate of flow and the complementariness and the computer self-efficacy would be constituted the motivation to use the web site for learning. Learner has the maturity and motivation have been linked to academic success in virtual learning

(Leidner & Jarvenpaa, 1995; Piccoli et al., 2001). Steinbronn and Merideth (2003) suggest that self-efficacy may be most important determinant of motivation. Therefore both the teacher and learner need to be considered an integrated into the design and implementation of online support for teaching and learning.

We investigated the complementariness and the flow as the mediate variable to learner's satisfaction, because of accomplishing the in the learning/communication process. We tested that learner's satisfaction of the complementary course is influenced on learning self-efficacy, complementariness and the flow. The effectiveness of information technology in contributing to learning will be a function of how well the technology supports a particular model of learning as the appropriateness of the model to a particular learning situation (Garrison & Kanuka, 2004; Leidner & Jarvenpaa, 1995). The blended learning combined strengths of on/offline instructions are more effective for the single e-learning to replace of offline instruction (Bluemink & Jävelä, 2004; Friedman & Deek, 2003).

The comprise the engagement of information technology in academic environments respond to current trends and future demands of educational innovations as moving toward complementary, even comparable strategies in the digital age (Friedman & Deek, 2003). The examining these types of changes are very important because the examination results allow institutions offering complementary course to know whether the courses are improving over time. Thus this research examines the more use of the technology for learning in a field setting. The result of prior study of online learning that use the networked technology show the low and equal effectiveness compared the classroom based learning (Piccoli et al., 2001). Recently, several researches suggested the blended learning is more the learning effectiveness compared online and classroom learning. Future study, we should investigate the learning effectiveness to compare the complementary course and the traditional course. Instructor designs the complementary course for the quality of the classroom experience.

## Conclusion

Using the initial model as a theoretical framework, this study helps practitioners and researchers better understand which dimension of interactivity effect to the complementariness and the learning experience (flow), how the web site is used to complement classroom-base learning, and how learner will respond to learning effectiveness. Also, it can help researchers considerate our findings for development and evaluation of e-learning theory.

Results suggested that many of the important to the relation between interactivity and the complementary use. Prior study proposed conceptually that the interactivity positively effect to complement for classroom-based learning (Bannan-Ritland, 2002; Bluemink & Jävelä, 2004; Garrison & Kanuka, 2004; Osguthorpe & Graham, 2003). Our research tested their relations. That evidence of this result overall could make a sense the complementary. Especially we consider interactivity not overall concept but as 3 dimensions for investigation the impact of each attribute interactivity to the flow and the complementary. Referring the result, the instructor could make a plane and design the complementary course for improving the complementary and learning experience.

Another contribution is the learner's satisfaction, the blended learning bring to the more effective than e-learning and classroom-based learning. There is not tested. Alavi (1994) and Parikh & Verma (2002) doubted the impact of the technology in the traditional classroom-based education. As our study's result, the technology used in the learning bring to not only the learner's satisfaction but also complement the limited interactivity of classroom learning.

Limitation of this study should be noted. The findings and their implications are obtained form a single study of a particular technology in Korea. Thus, caution needs to be taken when generalizing our findings. Second, the R-square reported by the current research represents another limitation. There may be a need to search for additional variables to improving our ability to predict usage intention more accurately.

The comprise the engagement of information technology in academic environments respond to current trends and future demands of educational innovations as moving toward complementary, even comparable strategies in the digital age (Friedman & Deek, 2003). The examining these types of changes are very important because the examination results allow institutions offering complementary course to know whether the courses are improving over time. Thus this research examines the more use of the technology for learning in a field setting. There are

several implications for e-learning management based on our findings to practitioners and to the researchers.

Every instructor should come to understand that successful imparting of information and skills lies in the ability to incorporate a variety of technologies that, directly or indirectly, help communication between student and teacher (Friedman & Deek, 2003). As pointed out in this study, Instructor could make a plan and design the complementary course considering the interactivity, flow, computer self-efficacy and learning self-efficacy for improving the learning performance.

To the researcher, our study model provides the comprehensions of using the networked-technologies for complement the constraint things in classroom-based instruction. So they could consider our findings for development and evaluation of e-learning theory.

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# Criteria and Indicators to Quality Assessment in Higher Education Institutions (HEI)

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## Abstract

The variety of elements for evaluation, accrediting and certification, demonstrates the heterogeneity of criteria and factors with the works without methodological sustenance with homogeneity, that indicate that HEI must assume the leadership to encourage that quality and evaluation culture evolve the educational system. The development of higher education evaluation mechanisms that truly should have and impact in quality improvement, it demands participation of the Universities. Based in the suggestions that UNESCO, World Bank (BM), Inter-American Bank Development (IADB) and Organization for Economic and Cooperation Development (OECD), in topics related to higher education for developing countries; and analyzing the studies in some countries as France, Mexico, Netherlands, Australia and Finland about quality assessment in Higher education, demonstrate the criteria and indicators to evaluate quality in HEI, moreover studies performance in Mexico. With this information, is developed a strategy to implement criteria and indicators to quality assessment in HEI.

## Introduction

The evaluation constitutes a field relatively not very developed, but very important to guarantee the control, adjustment and possibility of actions improvement of the human groups, of its plans, programs and projects. As it can be observed, the name of assessment, it associates a value with an action; but It's difficult to demonstrate that in this field can be achieved, as some specialists suppose, "objective evaluation" or a "evaluation without values", that is to say, independent of certain references of value for individual or groups preferences.

Assessment processes not only use the research; but rather in several ways, this generate elements for object to evaluate in the research or of the reality to apply, with a peculiar orientation that it underlines making decisions and it get less emphasis in theory developed or the general principles establishment.

## Reflexions about Assessment Culture

Assessment constitutes an intentional process that responds to people, human groups and institutions' natural needs. However, few habits and structures have got generating that we could know as "formal assessment resistance subculture".

The main problems that it faces the formation of assessment culture are the following:

- 1°. Absence of clear assessment concepts;
- 2°. Ignorance of different functions with those that can used;
- 3°. Confusion between assessment process and research process;
- 4°. No linking between assessment and planning process, making decisions and other social and institutional processes;
- 5°. Inadequate selection of assessment methods and technical;
- 6°. Ignorance of the main characteristics that should have the assessment information: validity, reliability, utility, opportunity;
- 7°. Lack of precision of the elements to evaluate in each field and the focuses that are more appropriate in each case;
- 8°. Inadequate use of evaluation outcomes;
- 9°. Absence of conditions that make feasible an evaluation process; and
- 10°. Condition of social environment that impose a resistance subculture to the formal evaluation.

## Conceptualizing the Assessment

The modern educational assessment as today knows, it exist with more than a century of history, but its more distant antecedents can be behind from 2000 years when the Chinese established exams to value the aptitude of those who aspired to occupy public positions (Jiménez, 2000).

The assessment as expert's trial. The assessment is assigned a value to an object or an action or how outline it others, the assessment allows determining the merit or value of some object (Scriven, 1967 and Pérez Jousts, 1986:31).

Assessment as measurement. This considers the assessment like a research activity and makes emphasis in instruments design or in the elaboration of those denominated "objective tests", based on the premise that some way is possible to measure the learning and people behavior changes (Cronbach, 1963).

There is who schematize in simplistic way the systems theory and consider context assessment, inputs, processes and products; but don't consider that to select an input and to apply, coordinate or control a process, also constitute true outcomes or intermediate products, and forget the specific measure that organization and structure have on the institutions (Tyler, 1950:69).

Some authors consider that assessment constitutes a process that allows identifying, obtaining and integrating useful information on decision alternatives with the purpose of achieving a better understanding of their elements under conditions of giving solutions (Stufflebeam and Shinkfield, 1987:183)

Among the main elements that integrate an assessment system, are the following:

- Information has more than enough necessities, problems and resources
- Action alternative
- Making decisions responsible
- Value system
- Selection of alternatives
- Change or modifications of the action
- Outcomes of these changes, and
- Information feedback

Ernesto Schiefelbein observes that the stages should be considered rather as logical moments and not chronological of the process, proposing as phases the diagnosis, programming, discussion-decision, alternatives, instrumentation and assessment.

Daniel Stufflebeam (1987) analyzes different definitions, proposes the following: the assessment is "the process of delineating, obtaining and proposing useful information to judge decision alternatives." This definition makes a clear emphasis in the process that supposes the assessment and that should be given to its products or results. For Marvin C. Alkim, the assessment is "the process of determining interest decision areas, to select appropriate information and to analyze this information."

Marck Thompson (1989) considers that the assessment is "the classifications of information with the purpose of improving decisions."

To conclude this section, and considering the antecedents, it proposes the definition or description following:

The assessment is the estimate or verification of achieving objectives or goals, based on common approaches, previously established and that it considers the needs to satisfy, required work volume, utilized resources, context conditions, positive and negatives foreseen impacts and the unexpected results.

## UNESCO, DIB, WB, and OECD Opinions about Assessment

United Nations for Education, Science and Culture Organization (UNESCO) (1998) define as mission and functions of higher education:

1. The mission of educate, forming and research;

2. Ethical, autonomy, responsibility and prospective;
3. Opportunities for all people to develop a new higher education vision;
4. Reinforce the participation and promoting women access;
5. Promoting the knowledge with research in science, art and humanities and divulging results;
6. Long term orientation with relevancy;
7. Reinforce cooperation with business world and analysis of society needs;
8. Diversifying as way to equal opportunities;
9. Innovators educative methods: critical thinking and creativity;
10. Quality assessment;
11. Potential and technology challenges;
12. Improve the management and financing in higher education;
13. Brains flight and their returns;
14. Associations and alliances.

World Bank (WB) in the denominated document “Higher Education in Developing Countries: Peril and Promise” (2000), developer by a teamwork integrated with specialists from 13 countries, establish that it’s necessary more and best education to achieve the benefits on a global economy based on knowledge.

This document comments that without planning and assessment in higher education, generate quality deterioration and inequity continuous in regions and countries, participating in mobility in different places and supporting the institutions with lower levels that want to be in better conditions.

Developed Interamerican Bank (DIB) present a document “Higher Education in Latin America and the Caribbean: Strategy Paper” (1997), were establish the arguments about higher education Latin-American with big differences in the countries and sectors, considering as main functions academic leadership, professional work, trying to get continuous quality improvement and evaluation.

The Organization for Economic and Cooperation Developing (OECD) comments that exist evidence about Latin-American universities are beginning to establish a quality assessment system, including the accreditation with the accountability objective.

Accreditation as evaluation favorite method suggests the following factors:

1. Global situation to introduce assessment mechanism in higher education (Kells 1992), most of them with accreditation way;
2. The promise into free commerce agreement to promote professionals international flow with accreditation;
3. The accreditation is the political element less controversial in higher education reform.

Assessment systems in Latin America are in charged with organisms councils or commissions integrated by faculty and institutions representatives linked in higher education. Some of them are Chile Higher Education Council (CSE), Dominican Republic Higher Education National Council (CONES), Mexican Evaluation and Accreditation National Commission (CONAEVA), Colombian Accreditation National Council (CAN).

Professional quality in these assessment councils is success key factor for evaluation, and generate that quality must not reduce resources.

Excepting graduate summative assessment in Brazil and several financing mechanisms linked to summative evaluation in the region, the higher education assessment in Latin America is oriented toward quality improvement as main objective.

## **Assessment Experiences in France, Mexico, Netherlands, Australia and Finland**

### **University Of Lille Iii-Charles De Gaulle France**

The Charles de Gaulle University of Human Sciences, Letters and the Arts was established in Lille at the end of the 19th century but, following an increase in student numbers, transferred to Villeneuve d’Ascq in 1974. The explosion in student numbers, which had been encouraged not only by improved standards of living and a higher birth rate but also by a powerful political will to democratize education, was a factor that characterized the 1980s. The University now has 23 000 students distributed among 16 departments of education and research.

As far as evaluation was concerned, therefore, it was a question of measuring performances relating to these practices; this was done essentially by using two types of indicator:

- Student exit: the number of students successful in competitive recruitment served as an evaluation;
- Evaluation of teaching: this was directly linked to the previous point (in this context, the quality of teaching depended on the number of successful students).
- These methods no longer appear to be appropriate for the following reasons:
- Diversification of types of employment taken by students;
- Difficulty in assessing the number of real jobs taken by students;
- The need for less stable learning (knowledge versus competences) in a more fragmented, unstable world characterized by uncertainty;
- The need to incorporate new tools and methodologies;
- The need for administrative, 'secretarial-administrative' (Taylorian model) staff as well as technical and technical-administrative staff with in-depth knowledge in their specialties which enabled them, for example, to oversee matters such as research.

As a result, it has become necessary to re-think evaluation practices in the light of the changes currently taking place in universities.

The most recent evaluations: the observatory of costs study

One of the objectives of the CNE was to increase the need in institutions for internal evaluation; the University has gradually adopted these practices. It was no longer a check or inspection, but rather an asset that enabled the institution to develop management tools and improve the way it functioned in the fields of administration, teaching and research; it provided an element of transparency.

#### **First Stage: Drawing up a Protocol of Co-operation**

A protocol of co-operation was drawn up to formalize reciprocal undertakings that had been made by the University and the Observatory of Costs in Higher Education Institutions.

#### **Second Stage: Composition of the Team**

A project team was established as soon as the visit of the Observatory of Costs was confirmed.

It was composed of people who came from a variety of backgrounds: specialists trained in evaluation and management techniques (Observatory of Costs consultants) teacher/research fellows who acted as facilitators and two people from Lille III, a teacher/research fellow and a female research engineer.

#### **Third Stage: Consideration Given to Methodology**

After discussion on the team, the questionnaires were adapted so that they more accurately met the need for an analysis specific to literary universities.

#### **Fourth Stage: Presentation of the Surveys**

The Observatory's mission was presented to all staff.

Observatory surveys are presented in seven registers:

- Register I contains an introduction to the institution.
- Register II deals with course years.
- Register III relates to the provision for depreciation and maintenance of equipment.
- Register IV covers teaching staff costs.
- Register V covers the costs of IATOS employees.
- Register VI deals with operating expenditure.
- Register VII deals with beneficiary departments.

#### **Fifth Stage: Collecting the Data**

Members of the Observatory team met nearly all University employees individually. During this period, it was necessary to explain the questionnaires again to everyone; people needed convincing and sometimes reassuring.

#### **Sixth Stage: Data Processing and Validation by the Services Concerned**

Some difficulties remained at the data capture stage. Meetings were organized with the services concerned to explain each item of information; discussion centered on management and improving the quality of education.

### **Quality and Complexity**

From evaluation based on quantitative data to evaluation of a model

If the study of costs and the setting up of indicators aimed at improving management are necessary, it is not only in these terms that quality can be measured. When everything is taken into account, change in the University inevitably has to take place on all fronts:

- At the research level,
- At the teaching level, or by setting up new study tracks that are more effective at enabling students to find jobs
- At management level, given the uncertainty and lack of clarity on the outside.

### **Competences Aimed at Achieving Quality**

A number of actions are also being carried out in parallel; they include an inventory of functions and a map of competences in all services. This survey is taking a long time as it is based on detailed interviews with all IATOS employees in all services and all managers; it will be completed by the end of this university year.

### **A Budget Designed to Meet Objectives**

A study has been initiated into criteria for distributing budgets between component units of the University; it involves making use of more complex and, one imagines, fairer criteria.

### **Computerization and Organization**

The introduction of information technology management tools must go hand in hand with consideration of how the structures that jointly manage these tools are organized.

### **Planning the Use of Space**

The University has been obliged to make use of old premises, that is to say the old Law Faculty building with its unique architecture including immense amphitheatres adjoining tiny classrooms and offices.

### **Actions to be Undertaken**

With a view to pursuing the objective of marrying quality, management and decision-making, new tasks have been planned and will be implemented on an ongoing basis:

- A University flowchart that more effectively identifies the 'academic complex' and 'central' services.
- A more accurately focused student admission and reception system. The review will be reviewed at the end of the first semester and possibly amended;
- Consideration stream by stream of the linkage in the acquired knowledge/required competences relationship as a function of sectors in which employment may be found.
- There is a need for an evaluation of teaching that focuses perhaps on what is taught, but mainly on the sought-for match between a concern for rigorous education (in the subject-based sense) and implied promises of finding employment;
- A powerful linkage between this dual requirement and research work.
- Medium-term forward planning of teaching work,

## **Universidad Nacional Autónoma de México**

The Mexican Higher Education System comprises a heterogeneous set of institutions, which provide education to a population of 1 359 057 students, with the participation of more than 100 000 academics. The Mexican Federal Government co-ordinates and regulates the MHES through the Ministry of Public Education, which is responsible for its policies, priorities and strategies.

Education at the university level is generally offered through study programs, which prepare students for a specific professional career; that is, the curriculum is based on a group of courses within specialized subject areas with little or no flexibility to deviate from it. Currently, the MHES has hundreds of study areas at the professional or undergraduate level covering all fields.

The participation of women has increased noticeably: they now account for 45 per cent of the total student population. The graduate population accounts is only 4 per cent (54 910) of all students enrolled in higher education programs. Graduate students are concentrated in specialization and master's degree programs. Fewer than 4,000 students are registered in doctoral programs.

The academic staff in the MHES consists of 135 128 faculty members, 85 per cent of whom are in universities and technological institutes at the undergraduate level, 8 per cent in teachers' colleges and 7 per cent in graduate programs. Diagnostic studies of the System also bring out several weak points: only 28 per cent of the academic staff devotes itself full time to university activities, and only 31 per cent have a graduate degree.

**Evaluation in the Mexican Higher Education System**

Quality began to appear in the public discourse regarding higher education in the late 1970s, perhaps as a reaction to the quantitative growth taking place in the education system. In 1978, policies and measures in that direction were specified, when the National System for Planning in Higher Education was established. The 1981-1991 National Plan for Higher Education was announced with state, regional and national coordinating units for planning. This is considered the first instrument in Mexico that addressed the development of higher education on a long-term perspective.

**The National University of Mexico**

The National University of Mexico is Mexico's largest and oldest institution of higher education, as well as the main institution of the MHES.

UNAM is a research university, therefore carrying out both the training of human resources and the generation of knowledge in sciences, technology and humanities. Its former mission is carried out through 22 schools located within the metropolitan area of Mexico City, attended by 140 000 undergraduate students and 15 000 graduate students. Research is conducted at these schools, but in addition, UNAM has close to 70 entities (46 institutes, 11 centers and 10 university programs) specifically dedicated to research in all areas of knowledge.

**Internal Methods of Quality Assurance**

At UNAM, the concept of quality has varied over time. In this century, three different concepts are present, all linked to the university mission, but varying with the changing objectives and priorities of Mexican society. The first one refers to quality as viewed by a society which considered higher education as a means for social mobility; another is that viewed by employers who needed a steady supply of well prepared professionals and technicians; and yet another is that taken by politicians and government officials who consider that universities should respond fast and uncritically to government policies and initiatives.

Currently, the UNAM evaluation system is complex, multidimensional and versatile. It combines tradition and innovation in a way in which one works with the other to promote, sustain and improve institutional quality in a comprehensive manner. In describing the evaluation system now applied at UNAM, we have to consider all aspects covered by the system: academic staffs, students, curricula and study plans, research activities, facilities, support personnel, and management. University management embodies all the other aspects and provides institutional coherence.

The links between the different aspects or variables considered in evaluation are shown in the Fig. 1.

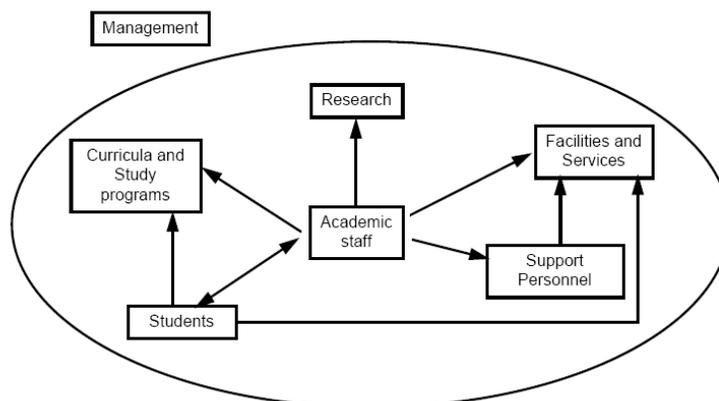


FIG. 1 VARIABLE CONSIDERED IN EVALUATION

Internally, there are two evaluation processes within a well-established feedback system: one is on an individual basis beginning with self-assessment followed by peer evaluation and concluding with collegiate body evaluation.

The institutional self-evaluation process in turn starts with an evaluation at a local level of projects and group development followed by a self evaluation of the complete organizational unit (school, institute, etc.), moving to a review assessment of a whole area or system within the university, and concluding with a review report at the institutional level.

These various evaluation review exercises vary in frequency and period covered, except at the unit level, which is invariably performed on a yearly basis; they also vary in depth, purpose and objectivity.

#### **Academic Staff**

Academics are evaluated on joining the university, for promotion, for tenure, and, recently, to receive salary bonuses according to their performance. The evaluation mechanisms vary according to the type of position held (of the 24 000 academic staff members in the institution, only 27 per cent hold a full-time position) and the purpose of the evaluation.

UNAM decided to boost the quality of its academic staff through different schemes, all based on collegiate body assessments that provide grants, rewards and salary incentives according to performance in teaching, research, extension and institutional support activities:

- The Rewards Program for Full-Time Personnel established in 1990.
- The Incentives Program for Lecturers and Part-time Personnel began in 1993.
- University Awards once a year since 1985.
- University Distinctions for Young Academics. Since 1989.

#### **Students**

The Institution uses several student evaluation schemes, some specifically oriented to help in deciding student admission; others to assess their academic progress.

- Admission. Since 1970 students are admitted to the University through one of two schemes. The first, applicable only to those students who graduated from UNAM's high school system, requires them to have a grade average of seven (in a one to ten scale) in their pre-university studies. The second mechanism is through a competitive written exam both on general subject questions, as well as questions related to the specific field of study they wish to pursue.
- Diagnosis. In addition to the entrance examination, a few years ago (1993) the University began to apply a placement test, which assesses the knowledge level of UNAM's freshmen.
- Ordinary academic progress assessment. At the University the mechanism regularly used to assess the progress of students is the application of exams at the end of each individual course. These are generally designed, applied and marked directly by each individual professor; although in some cases departmental (i.e. non-specific) exams are used.
- Honors Program. In 1991 UNAM started a streaming program based on a voluntary commitment of both students and academics.
- Graduation requirements. Before awarding a diploma and in addition to a successful completion of their coursework, the University requires of its students to prepare a research report or a research essay.

#### **Curricula and Study Programs Assessment**

At UNAM, curricula and study programs are always designed, formulated, evaluated and changed by collegiate body actions.

#### **Research Evaluation**

UNAM has a high reputation in nearly all fields of learning, mostly as a result of its research activities.

Program for Research and Technological Innovation. Successful projects receive financing for up to three years.

Teaching Improvement Program. This program is aimed at developing and strengthening the education basis and teaching innovations of the University.

#### **Support Personnel Evaluation**

Program for Quality and Efficiency on the Job. Started in 1994 and provides salary bonuses to those members of the support staff who through their job performance contribute to the overall quality and efficiency of the services

provided.

#### **Facilities Evaluation**

The National University of Mexico has built a strong tradition in construction planning, building maintenance, and materials and equipment procurement, as it owns more than 1 000 buildings all over the country, which have to be equipped, maintained and served. UNAM also houses the largest book collection, the greatest computer capability and one of the most extended telecommunications network in the country.

#### **Institutional Evaluation**

The University's program of activities is defined in the yearly Institutional Plan comprised by the aggregation of a Central Plan and the local plans of the different organizational entities.

#### **Impact of Evaluation at UNAM**

The internal and external evaluation processes conducted at UNAM have no doubt contributed to an improvement on the quality of a significant number of activities carried out in the Institution. The University decided rather, to motivate its academics through programs designed, formulated and explicitly initiated to expand their horizons, but according to a critical path design which at the same time led to the reawakening and consolidation of academic concerns. Concrete measures were taken, all framed within the characteristic participating style of decision making at UNAM, to set the guidelines for the development of the institution, renovate its management policies and plan an ongoing and systematic evaluation of its members.

The University was in essence redefining its concept of quality, and doing it based both on its own characteristics and reality, and on the concepts and paradigms from other countries and institutions. Quality was encouraged more through the previously mentioned institutional measures and programs than through changes in by-laws and regulations.

The efforts required to move forward now require a change of strategy, one based on policies, programs and efforts to:

- Balance the University's missions, particularly teaching and research;
- Assume accountability (academic and administrative) as the new paradigm;
- Establish a federated system.

Accountability should replace quality as an evaluation paradigm for the Institution as a whole, affecting each and every academic unit, collegiate body, or administrative office. An integrated dynamic process for planning, budgeting and evaluation must be put into operation.

Academic development should be achieved by giving UNAM a federated structure with academic goals as the cornerstone of its decision-making processes; promoting functional and flexible collegiate decision making; facilitating the use of the accountability concept as a fundamental parameter of evaluation; and enabling each of its academic units to develop their full potential within an organized institutional framework.

## **Delft University of Technology the Netherlands**

#### **The Dutch System of Quality Assessment**

The Dutch system of quality management was initiated with the publication of a policy document of the Ministry of Education and Science called "Higher Education: Autonomy and Quality". In response to this government decision, the Dutch universities started a system of reviewing the quality of each education program in a six-years' cycle. This system is primary based on a self-analysis of the educational program itself and on peer reviews.

After a faculty has compiled a self-analysis, which is a performance report on the contents, management and academic level of the program, a review committee of independent external experts pays a site visit to gain in situ information about the program and the management processes. The committee interviews staff and students and evaluates the level of exams and final theses of the students.

This procedure of external quality assessment of educational programs is monitored by the Inspectorate of Higher Education, which has been established by the Ministry of Education, Culture and Science. The Inspectorate advises the Ministry on the follow-up of the assessment and visits the institutions involved two years after the assessment in order to investigate which activities have been taken in response to the assessment.

The Dutch system of quality assessment is basically a national operation, though foreign peers often

participate in the visiting committees, in particular in the committees for research. Given its ambition to achieve quality in an international dimension, and to be recognized internationally as a top-level technical university, a national quality assessment is not enough for DUT; the quality of the university should be established in an international perspective. Therefore, DUT plans to have the education, research and management performance of all faculties periodically evaluated by an internationally qualified and authoritative body.

The DUT's system of quality assessment and control in education is focused on three 'areas': quality of the educational programs; quality of the educational process and quality of the education organization.

## **The Australian Higher Education System and Quality Assurance**

### **Perspectives**

In Australia the development of quality assurance in higher education has been influenced by significant changes in government policy and societal expectations.

Five independent but inter-related factors can be cited:

- Changes in the system of higher education in Australia and status allotment;
- Expansion and diversification of student bodies since the 1970s;
- Federal government general policy directions and quality initiatives;
- Federal government research policy directions and quality initiatives;
- Exploration of new approaches to quality assurance.

Generally, federal quality initiatives have challenged institutions to demonstrate, in the context of their mission and goals, the effectiveness of their quality assurance policies and priorities, the excellence of their outcomes and the efficiency and effectiveness of their operations.

Quality assessment procedures were thorough in terms of the examination of issues, which contribute to quality assurance. The New South Wales Higher Education Board through its Academic Committee undertook the approval, review, and evaluation of new and ongoing courses at both government and non-government colleges of advanced education. All courses, which were federally funded, were required to undergo this approval process; in addition courses, which were privately funded sometimes voluntarily, sought the status of such recognition.

The push for the inclusion of indicators as measures of quality occurred as government funds diminished and higher education expanded. Such factors have contributed within Australia to moves to develop performance indicators of both a qualitative and quantitative nature to assist in the judgment of quality and the efficient application of resources.

## **Quality Assessment – Finland**

### **Evaluation in Finland National Discipline-Based Evaluations**

The university degree system underwent considerable changes at the end of the 1970s: degrees based on subject levels were replaced by degree or study programs, a credit called a "study week" was introduced as the basic unit for measuring the studies, and the lower university degree (Bachelor's degree) was abolished in the humanities and natural sciences.

The reform of the degree system met strong opposition particularly in the field of the humanities and the arts. In some other fields, the reform did not change practices to a similar extent.

On 25 March 1991, the Ministry of Education appointed a committee to evaluate the standard of education and the functionality of the educational system in the humanities. The committee's task was to evaluate the quality of undergraduate and post-graduate teaching as well as academic degrees in relation to the goals set in the degree statutes and in comparison to international standards.

The committee was also to make suggestions about the division of work between undergraduate and post-graduate studies as well as about monitoring and assessing the quality of teaching.

The project group involved in evaluating and developing the degree system in education consisted of often members from different universities, the National Union of Finnish Students and the National Board of Education.

The results of the evaluation:

- The project group involved in evaluating and developing the degree system in education recommended a similar four-tier degree system to education as was already suggested for the other evaluated fields.
- The group wanted to abolish the basic degree programs.
- Also, in order to acquire the teacher's qualifications, the higher basic degree would be required.
- In the project group's opinion, the studies in education should be developed towards the direction of creating learning environments that foster self-direction, initiative, co-operation and community, and the use of information technology. The emphasis should be shifted towards post-graduate education, a professional licentiate degree and academic researcher education.

## **Towards Improved Quality of Teaching**

### **The Tampere Experience**

In the University of Tampere a project to evaluate teaching was carried out in 1994 and 1995. After a process of self-evaluation in the various departments, a peer review group of external experts continued the evaluation. Another aim of the project was to create a quality control system; for application in Tampere and, perhaps, also in other Finnish universities.

The current approach is self-evaluation, in which the institution itself scrutinizes its own work and commitment to its main functions, teaching and learning.

The objective was rather to secure a commitment from the faculties and departments, and if the departments could be seen to accept the projects as advantageous to their work, the project could be rated a success. The goal was to provide the departments with more knowledge of their activities, and to help them to analyze their problems.

The aspects of teaching that needed some improvement (problem areas) were to be pinpointed, remedial action was to be mapped out, and after this had been carried through, a new evaluation was to be made, resulting in better teaching.

This was no mere evaluation of a status quo, but rather the beginning of a continuous improvement in teaching standards. The objective was emphasized to be a new mode of operation, a new culture, characterized throughout by recognition of good teaching, with a view to making teaching merit count in addition to academic merit, e.g. in making job appointments.

As students' views were greatly desired, an extensive questionnaire including both structured and open-ended questions was used. Aspects of particular interest included the atmosphere in the department, staff-student relations, and students' conceptions of teaching and of their own progress. Students were asked to describe their own best and worst experiences of teaching and also of supervision when writing theses.

The crucial factors in quality control and maintenance were considered: 1) commitment to the development of teaching; 2) continuity of activity; 3) user-friendliness of methods and 4) openness of the activity. It is pointless to apply methods, which the department considers useless. Monitoring must be continuous, but the procedure must be simple and the interpretation of the results must be as unambiguous as possible. The autonomy of the department and faculties must be respected. There is little or no advantage of a procedure designed to assure quality if the department does not accept it.

## **University of Helsinki, Finland**

The University of Helsinki has long traditions in institutional assessment, such as evaluating the learning performance of students and assessing teachers in connection with the filling of teaching posts, for example when nominating professors. Throughout the history of the University research has also been assessed. Other types of assessments, however, such as the institutional assessment of the entire university, faculties or departments, are a phenomenon of the 1990s, and the present decade could well be called the breakthrough period of assessment.

The assessments have characteristically been received rather well within the University, and have been carried out by the University's own personnel. Many assessment committees have also included representatives of

the student body. The assessments carried out at the University of Helsinki have been internal assessments.

The assessments have also not been based on any specific management models, such as the TQM or the SWOT model of management by result. Rather, the starting point has been local operational problems and the pragmatic conclusions derived from them

In addition to the University of Helsinki, the Universities of Jyväskylä and Oulu and the Vantaa AMK Institution are participating as Finnish pilot units in the IMHE project. They have co-operated with the University of Helsinki in producing a report on the national context of institutional assessment, which is to be found as an appendix to this report.

Different types of operational assessments did not become commonplace at the University until the 1990s. Institutional evaluation of the operations of the entire University has been carried out, as well as assessment within faculties and departments. In addition, evaluations of teaching, time management, adult education, etc., are being carried out.

The evaluations carried out at the University of Helsinki have focused on the quality of teaching, conditions for and the quality of research, and the administration. The evaluations have thus focused on the most central issues. On the basis of the evaluations, many practical measures have been planned and implemented, and these seem to be of great practical significance, at least in terms of improving the framework of University operations. For example, methods of assessing the quality of teaching have been developed and put into use. Wide-ranging personnel development programmes have been planned based on the feedback obtained in these assessments. Assessments of the quality of teaching have also been reflected in the sometimes far-reaching curriculum reforms.

The benefits of the evaluations can also be seen in many areas of strategic planning, such as in the formation of the University's objectives and general policy aims and in its research policy. In January of 1996 the University Senate discussed a report on its future entitled "The University in 2015," which outlined visions and strategies for the future; another report addressed issues such as improving the conditions for research, and strategies for communications, computer and data-processing technologies, adult education, bilingualism and internationalization. Most of the strategies are being developed further.

Many factors have characterized the evaluations. First of all, the University has been relatively self-sufficient in carrying out the assessments. Most of them were conducted as self-evaluations, and outside experts have been used very little. For example, the institutional assessments of the University have completely relied on the expertise of the university staff. Although it may be that such an inward focus creates its own set of blinders, the University leadership believes that the assessments have provided much information which is useful as a basis for future development.

The institutional self-evaluations were strongly supported by the national discipline-based evaluations carried out at around the same time. These have influenced the development of curricula and teaching practices. Another characteristic feature of the evaluations has been the participation of students in the assessment work. Although student organizations have not invariably been satisfied with the degree and forms of participation they have been offered, the experiences have been predominantly positive from the point of view of the University leadership and other administrative levels. For example, there have been very few actual conflicts of interest between the students and University personnel - rather, there has been an understanding that both sides are working together to develop a common University. The student representatives have also been motivated to invest much time in the various projects.

In the future, a philosophy of evaluation will be central to the operations, research and teaching activities and administration of the academic community. Critical assessment of one's own activities as well as those of others, and the giving and receiving of feedback will form a natural part of this way of thinking. In recent years, a number of significant policy changes have taken place within the University. Traditionally, different departments and faculties have been treated equally in matters like resource allocation. A few years ago, performance and quality have been added to the allocation criteria, and this fact has steered the development of assessment procedures. Indicators for identifying centers of excellence in research and for rewarding departments and individuals providing high quality teaching have been developed. Support for outstanding achievement seems to be emphasized in future strategy planning as well.

One of the future trends is the University's increasing openness towards the non-academic community. The

University is increasingly interested in student job placement after graduation, in increasing co-operation with other organizations, and in finding new sources of funding. The University is also interested in its image in the eyes of the students, its personnel and the non-academic community. This opening up also has an influence on the kinds of information the University will be seeking through assessments.

As a summary of the evaluations carried out at the University of Helsinki in the 1990s, it can be said that a relatively positive evaluation atmosphere, which solidly supports the development of the University, has emerged. The goal is that supporting evaluation processes taking place in various parts of the University and developing effective tools for evaluation would lead to a situation where evaluations form a normal part of University operations. When the results of evaluations are presented as reports to the department heads, deans and the university's central administration, the evaluations will become a management tool in addition to being part of the internal development work of the various units.

## Normative Implications of Assessment and Evaluation

The critical literature around the 'quality movement' points to unresolved tension in quality theory and practice between the dual purposes of control and improvement or learning. Similar concerns are evident in the literature on quality in higher education. Harvey (1998) notes, "there is little analysis of the rationale behind the methods [of quality monitoring] because there is little exploration of what 'quality' is in a higher education context". Quality has become mired in instrumental responses to the accountability expectations of 'others' and demonstrating "fitness for purpose" without much debate on the meaning of fitness, clear identification of purpose or exploration of the complex interrelationships that ultimately impact on key stakeholders. In practice quality as compliance is winning out over quality as learning and transformation.

These observations indicate that fundamental questions in key sub-themes of the quality in higher education debate remain unresolved, namely:

- What is quality in an educational context?
- Who decides measures and controls it?
- Can diverse stakeholder interests be fairly reflected?
- How should quality be measured?

### Assessment and Evaluation as Technologies of Quality

[Assessment is] a mechanism to control students... more pervasive and insidious than most staff would be prepared to acknowledge ... based on bad habits copied from the past and a lack of critical thinking about what we do.

We are locked into patterns of assessment, which cannot be justified on any educational grounds...

We must focus unerringly on our educational goals and not be distracted by apparent short-term convenience (Boud, 1998: 135)

Tension exists between purposes of assessment as control and learning: summative assessment certifies; formative assessment prompts learning. In the first case, assessment is directed towards an external audience and its 'quality' is judged in relation to how accurately it portrays what a student knows, can do or is prepared to progress to: assessment is a technology of control. Formative assessment is directed to students and its 'quality' is judged in relation to the richness and usefulness of the feedback provided and its contribution to learning: it is a technology for improvement. In relation to evaluation similar tension exists: summative evaluation certifies; formative evaluation prompts improvement. In the first case, evaluation is directed towards an audience external to the immediate learning environment: it is a technology of control. Formative evaluation is directed to lecturers to provide feedback and contribution to learning: it is a technology for improvement.

Given this tension, policies and practices ought to be dominated by hard questions of purpose. The key questions should be:

For assessment of learning

- Why are we assessing?
- Who benefits?
- What should we be assessing?

For evaluation of teaching

- Why are we evaluating?
- Who benefits?
- What should we be evaluating?

However, efforts often seem to be absorbed in issues of administration and fixes for symptoms rather than in pursuing solutions to fundamental issues. The instrumental question ‘how can we do ‘it’ effectively?’ dominates the search for answers. Those fixes often are underpinned by common assumptions that remain uncontested.

Some common and, from Boud’s perspective, erroneous assumptions about assessment are:

- Assessment merely measures what a student knows; it does not influence or change it.
- Assessment is about creating league tables of the brightest and best.
- All students must be treated identically/judged equitably.
- Students are congenital cheats and will do everything in their power to do better than their peers.
- The unseen examination is the yardstick against which all assessment practice must be judged.

Boud presents a partial answer: that the source of expertise of the assessors (lecturers and administrators) lies mostly in their own experience of being assessed and “because of this assessment has become charged with a degree of emotion that does not act in our own interests or those of our students”. ‘Bad’ practice and the continued influence of assumptions that are no longer tenable are the consequence of history and the environment. Evaluation is likely to be influenced of unquestioned assumptions because of the lack of history. Evaluation of teaching is a relatively new technology in universities.

Another partial answer may lie in the apparent absence of a systemic framework and methodology for critique that prompts reflection on purpose and meaning rather than simple, bounded reflection on technique. Critical Systems Thinking and Critical Systems Heuristics may offer such a framework and methodology.

Problems of practical reason require a mechanism which facilitates meaningful participation between two groups of unequal expert status and which extends critique beyond considerations of technique. Ulrich’s Critical Systems Heuristics (CSH) examines the assumptions that underlie social system designs and force the stakeholders to be up front about the inevitable normative content that makes up such designs.

CSH explicitly recognizes that the knowledge claims of experts rest on boundary judgment that has no ultimate rational justification. Provided boundary judgments can be identified and debated, then there are no experts and meaningful participation is then possible. Under CSH, boundary judgments are identified by employing 12 critically normative questions that examines sources of motivation, control, expertise and legitimacy.

Four groups of three critical heuristics centre on what might be termed loosely the human element of the system design, (S):

- The client: who benefits?
- The decision taker: who has control?
- The expert: what source of legitimacy guarantees the design?
- And the witness: what is the legitimate basis of the design?

CSH operates in two modes reflecting the here and now, and the possibility of alternative designs. When the answer to the “is” mode is compared with answers to the “ought” mode the normative content of the system’s design is revealed to the planners. Other possible system designs can also be developed. CSH allowed the researchers to better understand the limitations of the assessment and evaluation policies and practices of a university and to see what basis of legitimacy they rely on.

## **Proposal**

Based in the analysis of proposals into different organisms like UNESCO, OECD, WB, IDB, and the studies of universities, the following proposal consists on generating criteria and indicators to achieve quality assessment, presented in Table 1

TABLE 1: CRITERIONS AND INDICATORS FOR QUALITY EVALUATION IN HIGHER EDUCATION INSTITUTIONS.

Criteria	Indicators
Institutional and organizational factors	<ol style="list-style-type: none"> <li>1. Organizational Structure</li> <li>2. Strategic vision and Mission</li> <li>3. Roll of the collegiate committees</li> <li>4. Academic leaderships</li> <li>5. Academic Development</li> <li>6. Knowledge Management</li> </ol>
Context Factors (external and internal)	<ol style="list-style-type: none"> <li>1. Interaction with society</li> <li>2. Linking projects with business, government and social sectors</li> <li>3. Agreements of national and international academic mobility</li> <li>4. Institutional communication</li> <li>5. Sources of financing</li> <li>6. Knowledge Management and development</li> <li>7. Graduated databases</li> <li>8. Respect to the rights and the academics' freedom</li> <li>9. Critical and creative thought</li> </ol>
Inputs Quality	<ol style="list-style-type: none"> <li>1. Update of programs and study plans</li> <li>2. Financial and formation supports for research.</li> <li>3. Administrative supports for faculty</li> <li>4. Computational technology and information strategic centers</li> <li>5. Students' skills</li> <li>6. Facilities and plant physical</li> <li>7. Attention on demand</li> <li>8. Motivation and responsibility of academics and students</li> <li>9. Autonomy in making institutional decisions</li> </ol>
Processes Quality	<ol style="list-style-type: none"> <li>1. Empower the faculty</li> <li>2. Systems of continuous self assessment</li> <li>3. Innovators teaching model based on learning</li> <li>4. Development of directive's skills</li> <li>5. Curricular Model with vision of modernity</li> <li>6. Academic and students exchange abroad</li> <li>7. Integration of teaching, research and extension processes</li> <li>8. Use appropriate of institutional resources (human, materials and financial)</li> <li>9. Generation of entrepreneurs and environment transformers</li> <li>10. Effectiveness in social service processes and internship</li> <li>11. Processes of students' tutorship</li> </ol>
Products Quality	<ol style="list-style-type: none"> <li>1. Study programs accredited as national as internationally</li> <li>2. Faculty Certification</li> <li>3. Administrative Processes Certification</li> <li>4. Recognitions for research or exchange projects</li> <li>5. Students' certification</li> <li>6. Answer speed to the changes in knowledge field</li> <li>7. To anchor and to evaluate knowledge development</li> <li>8. Promotion of environmental and sustainability culture</li> <li>9. High-performance Programs</li> <li>10. Social recognition in quality</li> <li>11. The students' global competitions</li> <li>12. Update databases of Graduated.</li> <li>13. Consultantship and training Agreements with sectors</li> </ol>

For quality assessment, it is necessary to make decision of carrying out a change, which is suggested with:

1. The convincing and formation of the high direction. High directives have the commitment of involving in the change, supporting, participating, convincing and integrating whole institution.
2. Deploy in whole institution that includes the formation of quality system in all University levels, where should be formed the commitment groups, where each member contributes their talent, experience and knowledge, which should be integrated to reach a common purpose. The teamwork favors creativity, innovation and commitment toward the quality continuous improvement.
3. Then, all should participate in continuous improvement processes; development of institution members is only possible efficiently with the application of favorable conditions. Total involvement in improvement processes is the teamwork.
4. Lastly, the development and constant performance in quality culture of institution members should remain. The society is the customer; it is the beginning and closing point in service cycle, witch is part of quality system.

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## **Distance Education as e-Service to Support Higher Quality of Education**

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### **Abstract**

Distance education is an educational method that instead of direct contact of a student and a professor introduces mediated contact. To learn at distance means to be able to study independently without the presence on a traditional form of teaching-hour. Every participant of this process sets his/her own educational goals adjusted to his/her needs and the rhythm of life. Education plays ever increasing role in today's dynamically changing business environment, managers have to adapt to these changes. The need for higher quality part-time education grows. The solution for the governments and universities lies in e-learning. The effort to support distance education is reflected also in various development programs of EU and also of national governments and reflected in new higher education laws. We are going to discuss what considerations are influencing university education, analyze the trends and discuss the ways to support higher quality of distance education.

### **Introduction: Changes as Stimulus to Continuing Revolution**

We live in a changing environment and therefore constantly need to adapt to changes with which we are confronted. Our ability to adapt constantly to this changing environment is what distinguishes us from other species. To adapt is, of course, to learn. This ability together with our ability to think ahead, and therefore to imagine the future results of today's actions, before they are actually finished, made us what we are today. Continuous adaptation, learning and facing new challenges keeps our minds in motion. Stopping this process would make us stagnate and eventually lose.

Changes in our environment do not necessarily need to be radical. Most changes are, in fact, insignificant and adaptation is a process not even realized by most people since this process is natural: It is like sitting in a boat. One is not conscious of movement until one looks around and watches the world passing by.

Learning process should be a natural constituent of our lives. It seems maybe unnecessary for those who are not wishing any changes, but preserving a status quo is unnatural for us, as it means moving backwards from the view of the changing environment.

### **New Technologies Force Adaptations**

The Internet, as a worldwide platform to exchange all kinds of information, to trade products and offer services lets boundaries vanish and facilitates trading with partners all over the world. This globalization process brings new trends and new technologies, which change all the ways of life faster than ever before. The influence can be felt and seen everywhere. Communication has changed to hyper-communication, business has acquired new dimension – e-business, distance education has changed into e-learning.

As we are confronted with changes, we adapt our actions to the new situations. We develop and enhance new technologies, and as our point of view changes with respect to these new technologies, we adapt our behavior to these technologies to full capacity. Let us take mobile phones as an example: Not too many years ago, people owning or using mobile phones in public were easily considered as pretenders, who tried to act more important than they were. Today everybody has a mobile phone and uses it wherever he wants. We have adapted our thinking and our behaviors to the new technologies as we started to use them.

Mobile phones and the development of the Internet, from an US military project in the sixties of the last century to a worldwide civilian and commercial network, which it is today, take part in making information

available almost everywhere and at any time. „The ability to streamline the structure of information and to influence and control its flow is a dramatically more powerful and cost-effective service than is that of moving and manufacturing physical products. The information surrounding a product or service is more important than the product or service itself<sup>i</sup>

The role of information in today's markets cannot be overestimated. Information is one of today's most valuable products. Contrariwise the validity of information decreases tremendously, since it can be spread throughout the world in seconds by using the new technologies. Debates about first-mover advantage therefore become a history lesson; execution is all that matters.<sup>ii</sup> Information becomes worthless if it is not used.

## **Distance Education as E-Service**

Problems with adapting the classical forms of education to the needs of educating the adults, growing population of the world, as well as with economic and technical evolution are growing due to fast and deep changes that are caused by the development of new technologies and many scientific innovations. The growth of importance of information in the process of production, marketing, services and public sector is causing that classical forms of education has become inadequate. The crises that national educational systems go through are the evidence of the difficulty to put into harmony the classical mission of the school – build up, maintaining and development of knowledge – with the new requirements it must face, namely the design of new structures and types of education adequate to new challenges, especially new requirements of the market.

Telecommunications, computer networks, multimedia, information and communication technologies and World Wide Web have opened up completely new way for education and learning for every kind of institutions, be it academic, or business. Those who study can work, anywhere in the world and communicate among themselves and with the professors creating virtual organizations. Information and communication technologies are thus used for dissemination of knowledge and empowerment. They (the ICT) enable delocalization of knowledge by placing it on the global computer network and thus making it available to public. Distance education has the potential to become widely available and at the same time on the other hand serving the needs of the individual.

Distance education is becoming due to continually growing educational wealth of the web a permanent part of university education. We know as on-line education, telenautics and most commonly under the name e-learning and its importance is growing from year to year. Today it serves mainly as supporting service to traditional education, but it has a potential to become an alternative of direct interactive synchronous education from the following reasons:

- The need to increase educational offer for graduates of secondary schools, because today the state (public) and private universities have no physical places for them. Educating young generation is for any country one of the best possible investments. It is also a possibility for lifelong education since today's information society exerts enormous pressure on its members to study and acquire new knowledge all the time. Only a small part of the population can find time and place on postgraduate courses on universities. Majority will opt for short and intensive on-line courses, which it can take at a convenient time and location.
- The need for new professional qualification, especially for those, which are in professions that are likely to cease to exist in near future. It can be an answer to the dynamically changing labor market.
- To support educational activities of students both in full-time and part-time studies (with the aim to improve its effectiveness and efficiency) and still improve the quality of learning. To this aim one can use virtual (networked) classrooms.

### **Synchronous and Asynchronous Systems in Distance Education**

When we want to use e-learning method of education we computers connected to a global computer network Internet. During the process of learning we need to use such an environment that stimulates the active participation of the student. In e-learning we can distinguish four levels of such an environment:

- Databases. Indexed databases of data containing the explanations of problems connected with the educational program and instructions enabling to go step by step through the given tasks.

- Didactic on-line support. It functions similarly to databases. It permits to use discussion forums, chat rooms, bulletins, e-mail or some communication system. This form is more interactive than the database one.
- Asynchronous education. It uses all forms of asynchronous communication and various activities as chat, virtual seminars, computer simulations in virtual laboratory, team projects, lectures and exercises on CDs or DVDs.
- Synchronous education. It includes lessons in real time. The participants can join the lecture or seminar at any moment when it is running. Teacher may use a virtual blackboard, which serves for presenting various information. The student can pose a question any time during a lecture (or answer a question). Videoconferences belong to the form of synchronous education, too.

Of course, synchronous education is the most advanced environment for distance education from “technical” point of view. From the point of view of educational psychology we can identify three domains, which can affect the learning process: the affective, psychomotor and cognitive domain:

- **Affective learning** is demonstrated by behaviors indicating attitudes of awareness, interest, attention, concern, and responsibility, ability to listen and respond in interactions with others, and ability to demonstrate those attitudinal characteristics or values which are appropriate to the test situation and the field of study.
- Psychomotor learning is demonstrated by physical skills; coordination, dexterity, manipulation, grace, strength, speed; actions which demonstrate the fine motor skills such as use of precision instruments or tools, or actions which evidence gross motor skills such as the use of the body in dance or athletic performance.
- Cognitive learning is demonstrated by knowledge recall and the intellectual skills: comprehending information, organizing ideas, analyzing and synthesizing data, applying knowledge, choosing among alternatives in problem-solving, and evaluating ideas or actions. This domain on the acquisition and use of knowledge is predominant in the majority of courses. Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order, which is classified as evaluation.

Researchers have spent much time investigating the study methods of successful and unsuccessful students at university to see what learning skills and strategies have been consistently used or ignored by these students. The results indicate that there is no set of techniques guaranteed to produce high grades, nor is academic success dependent on using “proper” techniques. In other words, there is no correct or “right” way to study.

Researchers have been able to identify three characteristics related to studying that distinguish successful from unsuccessful students. These are:

- Successful students organize their studies so they do not fall behind in their courses. They have developed appropriate course management and time management skills.
- Successful students favor a deep processing approach to their learning, as opposed to a surface approach.
- Successful students have acquired meta-cognitive skills.

Meta-cognition is the awareness and knowledge about one's own learning and the ways that knowledge is used during the learning process. It involves the awareness of the task of learning and the ability to self-regulate different approaches to specific learning tasks.

Learning strategies are the cognitive approaches used to acquire, access, organize and use knowledge; an approach to a task that is consciously planned that enables the learner to reach a learning goal in an optimal manner. A strategic learner is one who has developed an awareness of the task demands; an understanding of the purpose of the learning activities; and flexibility in responding to different demands appropriately.

#### **New Trends in Management Development**

New conditions in management development require application of new methods. Among the most effective, very perspective and nowadays more and more preferred ones belong the participative methods. Participative methods awaken interest among the participants; allow more effective learning and development of knowledge, more efficient transformation of knowledge into practice through the one own experience. The knowledge acquired through these methods are more lasting. The attention is on the student, not on the lecturer. Important is to learn what the student wants to learn, not what the lecturer wishes to lecture. The student is more responsible for the result of the course, since the lecturer's role is that of a facilitator, mentor, or advisor. He becomes a member of the team, expressing his ideas how to solve the problem.

We can say, that application of the participative method of education:

- Requires active participation of all students.
- Uses full inner participation
- Builds on experiences and abilities.
- Develops, widens knowledge and abilities.
- Teaches actively solve and overcome problems.
- Allows easier transformation of the learned into practice.

The use of participative methods requires very careful planning and preparation. The development programs that use participative methods use the experience, abilities, knowledge and aims of participants. The experience and knowledge is here revised, the attitudes analyzed, abilities developed further. The participants form a group, they work in small teams. Indelible part of the process is to encourage the participants to apply the results in real environment. It is a good idea if the participative methods are combined with lectures.

When we use participative methods it is important:

- To use structured and understandable materials.
- To use visual aids.
- To support independent research.
- To require active listening.
- To support social learning.
- To support active participation.
- To simulate (model) reality.
- To discuss.
- To use functional games, feedback, role playing.
- To create mutual acceptance and emotional participation of students.
- To ensure open communication.
- To solve conflicts (if any) constructively.
- To create the rules of behavior accepted by all.
- To carry the (mutual) responsibility for attained results.

## Conclusion

The educational opportunities that distance education offers are exciting, but institutions face several problems that need to be addressed before such projects can be made real. Among the challenges are the development of:

- Appropriate organizational and business strategies.
- Appropriate definitions of intellectual property rules with faculty and other developers.
- Teaching methodologies that recognize new styles of learning.
- Suitable online student services and support structures.
- Adequate faculty support structures.
- Defining study programs and how many courses will be accepted for a degree.
- Administration and financing.

Distance education methods can increase the quality of higher education through:

- Enhanced learning experiences.
- Improved access to education.
- Greater flexibility of study programs.
- Setting the individual pace of study.
- Access to more educational resources
- Increased interaction and collaboration globally.

Distance education will become important part of higher education's future. As it is said in EU development program the e-learning program is a further step towards realizing the vision of technology serving lifelong learning. It focuses on a set of actions in high priority areas, chosen for their strategic relevance to the modernization of Europe's education and training systems.

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# Elements of Usability Perceived by Mexican Students in Two Commercial Web Sites (A Study Performed in Guadalajara, Mexico)

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## Abstract

Electronic commerce has had a considerable development in the world. Some authors have stated that the lack or presence of Usability's elements could bring the success or the fail for a Site in the Internet. Despite the attractiveness and the problems attached to the e-business, little research about Usability and Electronic commerce has been performed in developing countries. To find some Usability's elements, 122 students from two Mexican Universities were requested to simulate an on-line purchase in two different Internet sites, being one American (English), and the other Mexican (Spanish). The age of the students oscillated between the 20 and 23 years. Using ANCOVA as statistical analysis to measure which Site's features prompted to the participants the following elements: Interest for the Site, Sensation of Security, Sensation of Confidence, and Desire to Return to the Visited Site. Finally some future work and possibilities were described, together with the conclusions.

## Introduction

The greatest benefit of the Internet has been its global presence. Nowadays it is possible from our house to access to an established Website in for example Russia, Nepal, United Kingdom, etc. Places that would be almost impossible to visit via another way. This feature, - as well others such as the evolution of the communication protocols, speed of the computers, and the security for the commercial transactions in the network, - has been taken by people and/or companies to make what it is known as electronic commerce.

Some researchers have compared the expansion of the Internet and its commercial potential to the growth of the radio in the first quarter of XX century: The radio was becoming from a cheap alternative for a market niche, to a phenomenon of consumption, that implied changes in the way to make publicity, and introduced the concept of Mass Culture. The dilemma also arises from how making the radio profitable, and also how to attract listeners, and keep them. It took the radio 38 years to achieve 50 million of listeners, while for the Internet was a single period of 4 years, (for the TV, it took 14 years to obtain that amount of users). [6]

The same questions that arose in the beginning of the radio are now being retaken for the Internet: How to make a site profitable? How to attract purchasers? How to make them return? How to make them buy for the first time, and repeat the purchases? Despite those resemblances, there is a significant difference between the radio and the Internet: radio is a one to masses communication, and Internet makes possible an one to one interaction and communication, and it does not hold to specific schedules. Also, as I said previously, a website can be visited from any place of the world, this feature has caused that the scholars begin to think and to propose diverse approaches in order to give the websites an universal character, to attract different types of potential customers. Then, we may say that some features of a website are important to obtain the approval of prospective consumers, to increase the rate of the visits, and create them the conditions to stop and buy in the site, and finally, make those purchases a repetitive action.

The Internet, with its multimedia capabilities, must provide to the client a way to please him during the time he is spending in the site. The developers of a website must take into account the visitor's characteristics, but also the perception that the visitor takes from the site. For example, if we see from the point of view of the client and its cultural surroundings, two approaches exist: Standardize or to globalize a Webpage [11], so that it is the same one anywhere in the world, or the concept "to think global, to act global", in other words, to adapt the internet sites to the different characteristics of a population that takes itself like objective. For the design of the sites, or taking the concept also called internationalization [15], where the process of design and improvement of a product becomes

free of cultural distortions, in opposite with the location [15], where the product, in this case the site, is adapted or accommodates to an specific area. All these problems: cultural and security approaches, trust, trust, etc., are always related to the appearance in which a Website is going to be designed, now, here is when the concept of Usability comes in. Consulting companies are already entirely dedicated to answer questions related to what is usability and how manage it. These companies are mainly from U.S.A. and the United Kingdom. In the Spanish-speaking countries the guideline in the studies about usability is Spain, where one university has established a usability laboratory [16].

One of the Internet fastest growing Hispanic countries is Mexico, where the increasing of the computer use and the e-business looks promising: one of each 10 homes has a computer, and at least 300 cities are already connected to services of Internet by optical fiber wiring. Mexico is one of the countries with greater number of connections of Internet by population. The country is placed in number 24 of OECD countries with services of broadband. The future for electronic commerce in Mexico is quite promising, and has the interest of the private sector. Some Mexican companies, and Hispano Americans have begun to use models that have been proven of successful way in the U.S.A., as much in the form of auctions, direct sales and financial services. Sites like Amazon.com, Patagon.com, and ebay.com, already influence the Spanish speaking market: Submarine.com, español.com, deRemate.com, MercadoLibre.com, Zonafinanciera.com, StarMedia.com and UniversoOnline.com [7], which have had different luck in Internet. This added to the increase of the number of personal computers between the population. Nevertheless, in the year 2000, only represented 0,17 % of the sales in the national economy, although it is hoped that this proportion will grow to 1,2% for 2004. In relation to the clients and the electronic commerce, the problems that appear in Mexico have been similar to which they appear in other countries, like the U.S.A. [12].

Despite their growth and good expectations, the studies on usability in Mexico have been nonexistent, although some works have appeared, they have been made by foreigners who look for how to determine which usability's elements are perceived by users in different countries, some examples: The icon to send an electronic mail (mailbox, or postcard), or to indicate that they handle versions of the site in different languages (*English*: flag of the U.S.A. or the United Kingdom. *Spanish*: Flag of Spain, or the Latin American country where the Web site was created.).

## The Usability Concept

The word usability has been mention lines above, but still there have not been a definition of what usability stands for. An exact meaning is complicated. Usability is, to say it somehow, the measurement of quality that a user gives to a site, in other words, that the users are able to make in an easy way the tasks associated with the use or navigation of a web site. The criteria to consider what is USABLE, and how we can measure it, are different for each Web site and for each person [5]. There are even ISO standards to define what is Usability, and some authors [1], have incorporated them to their studies to measure it:

ISO/IEC 9126: "the usability talks about the capability of a software to be included/understood, to be learned, to be used and to be attractive for the user, in specific conditions of use". In this definition, the emphasis is placed in the product, and the importance of its attributes, external or internal, those that help the user. A relation exists then user-product.

ISO/IEC 9241: "understood for which a product can be used by a specified user, to reach goals with effectiveness, efficiency, and satisfaction in a specified context of use". Here the definition is centered in the concepts of quality of the tasks that a user makes, and its effectiveness.

The usability concepts that the ISO standards talk about, allow us to define some elements in which usability is cradled (See Table 1). Before the expansion of the Internet, the concept of usability in the information systems was in any case a key group of five elements (See Table 2).

Together with the expansion of the Internet, the concept of usability has also been extended and begun to be the center of deeper investigations, some of the characteristics that have been added to the concept are: 1) *Navigation*, 2) *Time of Response*, 3) *Credibility*, and finally 4) *Content*. In other words: an easy navigation, with the

minimum of time for a page to download, and with contents of quality [13]. Sears suggests that more investigations for usability should be done around the effects of the media in the following areas: Network delay, designing decisions, navigation strategies, user's characteristics, and tasks of the user for usability's based systems in the WWW [17]. Many of the works that have been made to find measurements of usability are focused on the characteristics of the sites, in order to be able to determine which features of a website are attractive to the users, this researches are within the areas that Sears mentions in the vein of investigation sources.

TABLE 1: CONCEPTS OF USABILITY DEFINED BY ISO. ADAPTED OF BEVAN AND MACLEOD. [3].

<b>Elements of usability</b>	<b>Based on:</b>
Facility for Learning	Predictability, synthesizes, familiarity, the generalization of the previous knowledge and the consistency
Flexibility	The variety of possibilities with which the user and the system can interchange information
Robustness	It is the level of support to the user who facilitates the fulfillment of his objectives

TABLE 2: ELEMENT OF INTERNET IN THE INFORMATION SYSTEMS. ADAPTED OF PALMER.[13].

<b>Elements</b>	<b>Definition</b>
Consistency with the interface	Placing in a common way the navigation tools, as the buttons and bars
Time of downloading	Focuses in the speed in which the system provides an answer to the activity with the navigator or visitor
Mapping and Metaphors	Addresses the navigation from a place to another one within the system and the adoption of "metaphors" you specify, as they can be the "shopping cars" that means that selected products are kept to buy
Styles of Interaction	Is concentrated in the messages of the system that are generated in answer to the activities of the visitor or user
Multimedia and audiovisuals	This is the degree in which the capabilities of multimedia are incorporated in the development of the system

## Previous Works

The problem that face most of the designers of Websites belongs, as we have seen, to the scope of the usability: Characteristic that make my page or website useful, and produce a pleasant experience visiting the site. A very key issue is the trust that a site generates to a possible buyer. Since the internet shopper is not going to have "a physical" exhibition to the product, meaning that it will not exist a contact with the product he/she is buying, the trust must be something very important at the time of making an on-line purchase. Some differences between the products that are been sold through Internet exist: There are products of a high level of contact, those are the goods that the customer prefers to physically inspect before buying them, such as: clothes, antiques, and even food [14]. Also, there are products with a low level, or with no need of contact, such as: financial software, computers, music, services trips, books, videos, etc. (Nevertheless, it also has been discovered that some products of high level of contact are sold well by Internet: clothes, shoes, flowers, food and wine.). [10]

Other researches have worked with user groups where pages of products or companies are visited and analyzed, looking to find key factors related to the design of the page, information of the site, proximity towards the users, etc. In general terms, they point out items like: loading time of the page, content, efficiency of navigation, security, proximity to the consumer and marketing, personal clinch, useful information, simplicity of the design, desire to establish a relation [1]. With respect to quality of the information, this can also be divided in: accessibility to the information, quality of the graphs, meaning of the graphs, etc.

The Microsoft's guide of usability works with 5 referring categories [9], and their subcategories:

**Content:** Which assures the information and the capabilities of transaction of a Website This is subdivided as well in *relevance* (importance of the content for the users), *Use of the media* (appropriate use of the multimedia content), *depth and width* (the appropriate rank and detail of the subjects), *Information on time and current* (if the content of a site is present or not).

**Ease to use:** The cognitive effort required for use a site. Also it is subdivided here, being the subcategories: *Goals* (related to clear and comprehensible objectives), *Structure* (Focused in the organization of the site), and *Feedback* (in the understood that the Website gives information to the user).

**Promotion:** The publicity of a site in the Internet and other media. It is considered critic to be a magnet for other navigators into one specific Website.

**Made for the Media:** The form or measurement of a site to cover the particular necessities to a visitor. Their subcategories are: *Community*, (where it is possible to see if the offers to a visitor to be part of an on-line group), *Personalization*, (the possibilities of adapting a site technologically, like the control to download multimedia programs to see archives or to listen music), *Refinement*, (the importance gave to new proposals).

**Emotion:** the one that produces us affective reactions to certain sites of Internet. Their subcategories are: *Challenge*, (the difficulty, in the sense of being able to overcome it, instead of the site's complexity), *Trace*, (the way a site moves the interest of the users), *character strangeness*, (related with the credibility), and finally, *Peacefulness* that site can provide to the visitors.

Among the studies that have tried to measure the characteristics of buyers in the world, special attention should be made to the one completed by Lynch, Kent and Srinivasan, where, even though the experiment was not made to determine usability issues, they tried to find which elements in a portal of Internet can increase 1) the desire of the clients to make a purchase and 2) the desire to return to the site [10]. The elements to determine these two factors were: the quality of the site, the trust, and the attitude towards the site. The trust turned out to be the most significant element for the purchase intention, and for loyalty towards the site, the trust was again the most significant element. The experiment used students of 12 countries (Germany, Argentina, Brazil, Canada, Denmark, Spain, the United States, France, Italy, Mexico, and South America - it does not distinguish which countries are part of this group). The results were given in a global form, without indicate which regions are more susceptible to the investigated elements.

Gibbs, Kraemer, and Jason working on aspects of electronic commerce, found some points in common that the consumers have noticed. The visitors want from a websites, to provide valuable and useful contents, a better usefulness, improvements for the way of life and a greater selection for product and services. Users from U.S.A. mention that a greater selection as a key issue for the success of a site, however in Japan, Singapore and China only the young users pointed that, and for Brazil, Mexico and Taiwan its lack is mentioned as inhibiting in the diffusion of electronic commerce B2C. [4].

## Measurements and Development of Hypothesis

The following hypotheses were considered:

H1: *Elements such as emotion, promotion, time of response, ease of use, experience, content, made for the media cause the feeling of security in the user.*

H2: *Elements such as emotion, promotion, time of response, ease of use, experience, content, made for the media cause the feeling of trust in the user.*

H3: *Elements such as emotion, promotion, time of response, ease of use, experience, content, made for the media cause the feeling of interest in the user.*

H4: *Elements such as emotion, promotion, time of response, ease of use, experience, content, made for the media cause the feeling to return to the site in the user.*

H5: *Navigation Strategies, User's tasks, and the characteristics of the users affect the feeling of security, interest, trust, and desire to return to the site.*

ANCOVA was used as method of analysis to find these relations, due to this type of test analyzes the relation between a dependent variable and the two or most independent ones, and also eliminates and controls the

effect of at least one of these independent variables. A regression perspective is used; because it is desired to examine the effect of the categorical independent variables and the variables quantitative continuous over our independent variable. In addition to all of these, this method eliminates unwanted influences in our independent variable, caused by our sample.

The elements used as independent variables were: sensation of trust, security, interest in the site and desire of return to the site. Why these elements are selected? Well, already it has been mentioned [1] that for a business to be successful, it is necessary that the potential buyer knows that the site exists, visits the site, make them to be interested in the offered products and the site, dares to buy (the customer would have the security of a transaction made without problems), and continue returning to make purchases in the same place. The fourth dependent variable analyzed in this work is the trust. If we observe trust from the point of view of the traditional commerce, it is necessary for a customer to have trust in a store or a seller, before he/she can make a purchase. It is important to detect which usability elements deal with the diffusion of trust in the electronic world, where the potential buyer cannot "touch", perceive or feel the displayed products. [10].

It was decided to work with two sites that use B2C type of electronic commerce, the B2C is the most extended type of e-business, also this type of e-commerce must be the most universal because it tries to penetrate different types of users. It was set to use a site in English and another one in Spanish, where both had the following characteristics:

1. Selling diverse types of products
2. The possibility "of seeing" those products
3. To accept all type of credit cards
4. That they were known
5. Both sites were handled in a single language, being one in English, and the other in Spanish

The site in English, has already been mentioned by other authors as a reference for a B2C type: [www.amazon.com](http://www.amazon.com), for the site in Spanish, the chosen one was one of the so called "clones" of Amazon [20], close to the English site in its features, and also famous because the constant media bombing (TV and radio), this site was [www.esmas.com](http://www.esmas.com), that belongs to Televisa, one of the biggest media corporation in Latin America, and the biggest in Mexico.

The survey was designed to measure several perceived usability values. A non-probabilistic sample from two Universities in Guadalajara was used: the University of Guadalajara, and the ITESO (Institute of Superior Studies of the West, as writing in Spanish). Two groups of bachelors level by university, and were chose, and also a group of graduated students from the University of Guadalajara. All the students were Mexicans. The total number of selected students was of 160. They were asked to answer a questionnaire. 122 surveys returned answered (76,25%). The bachelors degree students were compensate with extra points on their final grades, there was no compensation for the graduate students. The students were instructed to fill the survey wherever they wanted, just keeping in mind a dead line for returning.

The questionnaire was divided in three parts. The first one was demographic data and questions related with the Internet connections of the participants. The survey's questions were based in the work published by the Mexican Internet Association [2]. The second part were instructions to make a purchasing simulation. Half of the participants, randomly selected, were requested to work in the site in Spanish; the other half must work in the site in English. The categorical independent variables were taken from these two parts, and related to the points that Sears suggests [17] (Table 3).

A series of questions representing different elements from usability, were placed in the third part of the survey, and used as continuous quantitative independent variables. This part of the questionnaire was also divided in:

- a) A series of questions requesting to describe the visited site. (Table 4).
- b) Questions about the feelings of the user respect to the site. (Table 5).

In both parts the questions were based on the questionnaire elaborated by Palmer, with answers using a Likert's scale of 7 values, (1 = poor under that excellent measurement, 7 = in that measurement.) [13]. To simulate the purchase, first they had to look in the assigned site, and try to find a compact disc from a rock band, whose name was specified in the instructions, second, to see if exists the capability for listen some extracts of one of

the songs in the compact disc, and if so, do it. After those actions, add the disc to a cart of purchases, close the purchase, and enter their personal data, including electronic mail. They must search for the payment method, for the ones that have credit card, to use it, and before close the purchase, canceling the payment action and close the website.

TABLE 3: CATEGORICAL INDEPENDENT VARIABLES. OWN ELABORATION.

Questions	Points
Previously knowing of the site	Navigation Strategies
Site	User Tasks
Gender	User Characteristics
To speak English	User Characteristics
To have a credit card	User Characteristics
Type of Internet connection	Navigation Strategies
Place where the users connects to Internet	Navigation Strategies
Time being Internet user	User Characteristics
Previous Internet purchases Experience	User Characteristics

TABLE 4: QUESTIONS RELATED TO THE QUALIFICATION OF THE SITE. OWN ELABORATION

Question	Usability element
Effectively Organized	Ease to use
Gives good information of the products that sells	Content
Displays a variety of products	Content
Provides useful information and Aid (like FAQs)	Interaction
Provides feedback	Interaction
Provides the capability to adapt it to my system	Made for the media
Provides user interaction	Interaction

TABLE 5: QUESTIONS RELATED TO THE FEELING TOWARDS THE SITE. OWN ELABORATION.

Question	Usability element
Having previous knowing of the site existence gives security	Experience (learning)
Easy to operate the site	Ease to use
The site was amused	Emotion
The visited site was frustrating	Emotion
The links are appropriate	Promotion
The sequence of pages from the beginning to the end	Ease to use (Structure)
The design of the page made easier to finish the task	Ease to use (Structure)
Concern to provide personal data in the visited site	Credibility
The speed with which the computer provides information	Response time
Understandable Instructions	Ease to use (Structure)
Enough amount of images	Content
Likeliness to return in the future to the Site	Emotion
Better than others	Promotion
Willingness to recommend the site	Promotion
Impatience by the time of response	Response time
Fear to the site	Ease to use

## Results and Discussion

The proportion of women and men in the experiment was equal, 50% and 50%. The users of the site [www.esmas.com](http://www.esmas.com), (e), were slightly greater, (53.23%), than the users of [www.amazon.com](http://www.amazon.com), (a), (46.77%). Most of the Internet connections were made from their homes (58.87%), followed by the school (20.97%), the work (11.29%) and finally cyber-cafe (8.87%). Three quarters of the participants had no previous experience purchasing

in the Internet, (76,23% against 23,77% that had). 68.33% of all the students who answered the survey spoke English, against 31,67% that did not. Although the majority felt that their level of English was acceptable 43.21%. (6,17% excellent, 38,27% good, and 12,35% bad, no one considered it terrible).

For the case of the trust, (Table 6), the variables that were perceived as trust elements were: “variety of products” and “frustration level”. The element “variety of products” agrees with the founded by Gibbs, Kraemer, and Jason, where they point out that the lack of this element was a trust’s inhibitor in Brazil, Mexico and Taiwan [4]. The other perceived element, “frustration level”, is considered to be inside the emotion elements, being those that produce affective reactions to us with the visited site. Possibly a site design to produce a pleasant visit generates more trust.

TABLE 6: ANALYSIS OF COVARIANCE FOR “TRUST”.

Type III - Sums of Squares.					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
<b>Covariates</b>					
Variety of products	8.40162	1	8.40162	6.6	0.0129
Frustration Level	5.3044	1	5.3044	4.17	0.0459
<b>Residual</b>	71.239	56	1.27212		
All f-ratios are based on the residual mean square error.					90% acceptance.

For security, (Table 7), the students perceived again that the variety of products was an important element. “Made for the media” contains the capability to be able to download multimedia elements; the importance pointed for this element is possibly explained because they were requested to listen some tracks of the compact disc. Again, some elements for emotion appeared: “frustration level” and “the site was amused”, probably a site with some emotional or touching reactions that can tie visitors to it, and be perceived as secure.

Small differences exist in the appreciation of these factors, depending on the place where the students were connected, (Fig. 1): participants connected from the school or in cyber-cafe, perceived more security. A possible explanation could be that in the work is more difficult or punishable, to use Internet for personal purposes. Although all the connecting sites were inside the positive area for the security appreciation, it was expected that people felt more secure to make this type of simulations from home.

Both sites were perceived as secures; however [www.esmas.com](http://www.esmas.com) was perceived safer than [www.amazon.com](http://www.amazon.com). (Fig.2). A possible explanation for this was that [esmas.com](http://www.esmas.com) is a site in Spanish, and the small difference of more students that worked in that site. On the other hand, the fact that they spoke English was not significant for the security matters.

People having previous purchasing experience in the Internet, (Fig.3), vaguely felt more secure the visited site, although both types of groups, those who had experience and those who had not, were within the threshold. Its important to make notice an important fact, the number of persons that have not bought in internet is, by much, greater than that of the ones that have bought. Nevertheless, the sense of security of the people who have bought previously is greater, this could explain that experience help and make learn more about what is offered by these sites raising their security, and even more if the previous experiences have been positive.

For the desire to return to buy, Table 8, this was greater if the site were perceived as amused, an element of usability framed within the emotion, which could be stated that if the experience was pleasant, the desire to return increases. Adequate links also increase this desire. An important element was that relations between the perceptions of security at the time of filling the blanks with personal data, and desire to return to the site, it can be say that a higher level of perceived security, higher the desire to return. Possibly recommending the site to others emanated from the positive experience that the users felt, and from desire to return again. There were differences from the desire to return and the gender of the users, (Fig. 4), more men displayed greater desire to return than the woman, a possible explanation could be that the purchase simulation was for music from a rock music band, it should be

interesting to see if this element changes if the requested compact disc were from a artist oriented artist to the feminine market.

TABLE 7: ANALYSIS OF COVARIANCE FOR SECURITY.

Type III - Sums of Squares.					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
<b>Covariates</b>					
Variety of products	6.05655	1	6.05655	6.92	0.0110
Made for the media	2.97347	1	2.97347	3.40	0.0705
Site was amused	3.49042	1	3.49042	3.99	0.0506
Frustration Level	6.86092	1	6.86092	7.84	0.0070
<b>Main Effects</b>					
Site	4.94468	1	4.94468	5.65	0.0209
Place of Connection	5.87271	3	5.87271	2.24	0.0938
Previous Internet Purchases Experience	2.46646	1	2.46646	2.28	0.987
<b>Residual</b>	48.9804	56	0.87465		
All f-ratios are based on the residual mean square error.					90% acceptance.

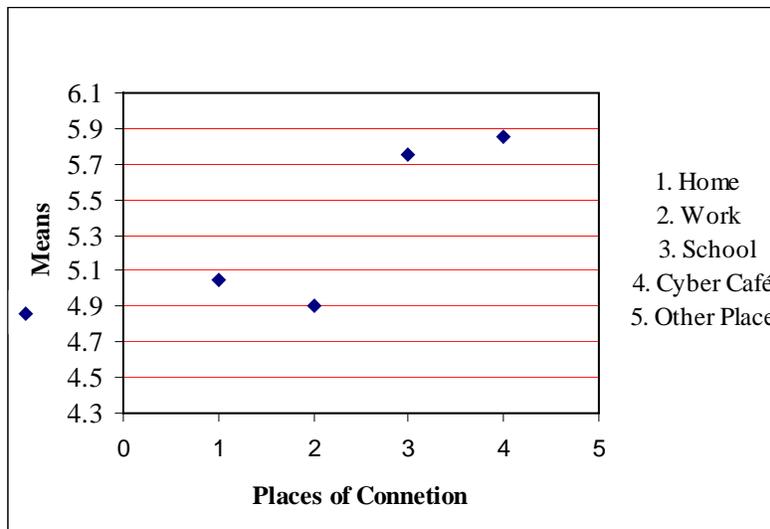


FIG. 1: MEANS FOR PLACE OF CONNECTION

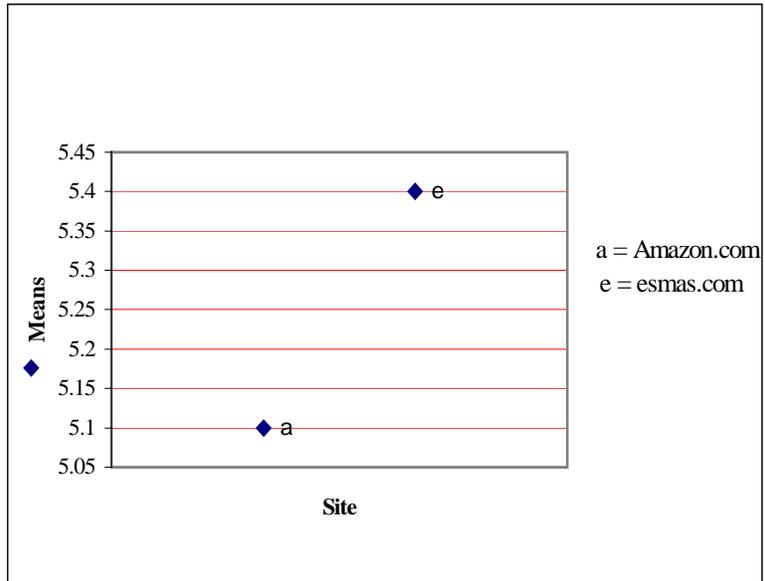


FIG. 2: MEANS FOR THE SELECTED SITE.

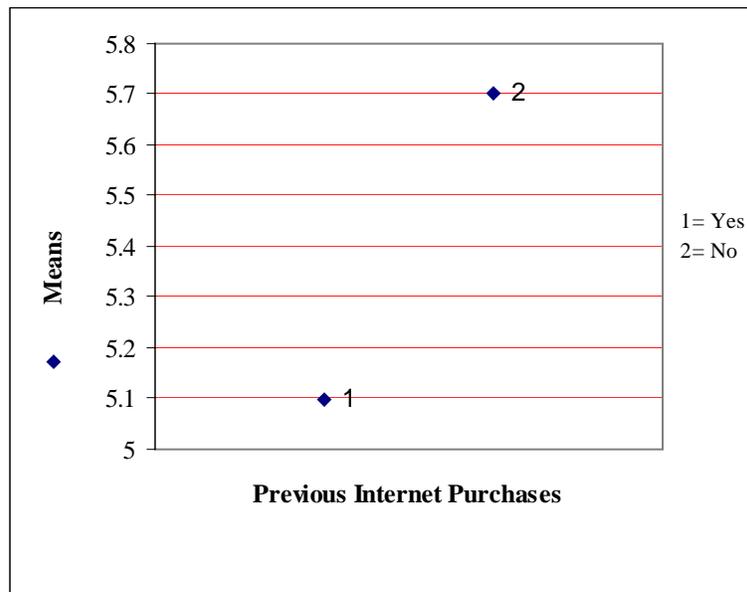


FIG. 3: MEANS FOR PREVIOUS EXPERIENCE BUYING IN INTERNET.

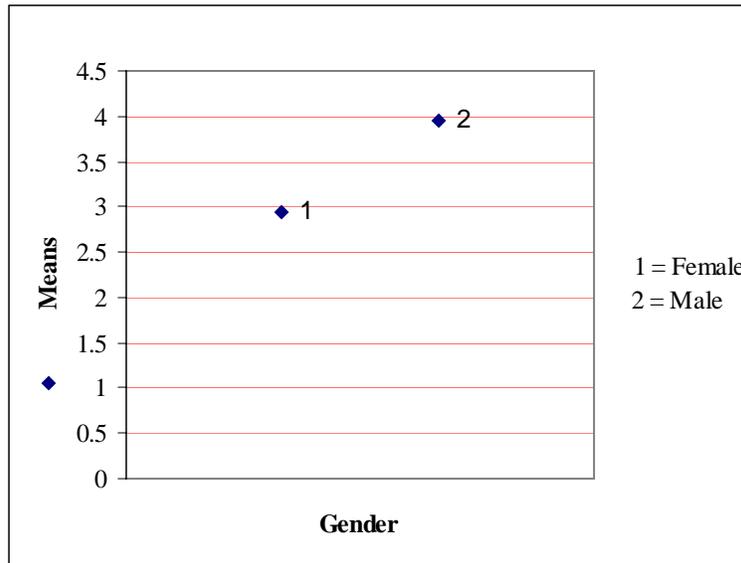


FIG. 4: MEANS FOR GENDER OF PARTICIPANTS.

Regarding the desire to return to buy, Table 8, this was greater if the site were perceived as amused, an element of usability framed within the emotion, which could be stated that if the experience was pleasant, the desire to return increases. Adequate links also increase this desire. An important element was that relations between the perceptions of security at the time of filling out the blanks with personal data, and desire to return to the site, it can be said, the higher the level of perceived security, the higher the desire to return. Possibly recommending the site to others emanated from the positive experience that the users felt, and from desire to return again. There were differences in the desire to return and the gender of the users, more men displayed greater desire to return than the women, a possible explanation could be that the purchase simulation was for music from a rock music band, it should be interesting to see if this element changes if the requested compact disc were from an artist oriented to the feminine market.

TABLE 8: ANALYSIS OF COVARIANCE FOR “DESIRE TO RETURN TO VISITED THE SITE AGAIN.”

Type III - Sums of Squares.					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
<b>Covariates</b>					
Site was amused	27.1926	1	27.1926	13.11	0.0006
Adequate Links	8.72784	1	8.72784	4.21	0.0448
Perception of security	8.70407	1	8.70407	4.20	0.0451
Better than others	9.56838	1	9.56838	4.63	0.0357
<b>Main Effects</b>					
Gender	15.9071	1	15.9071	7.67	0.0076
<b>Residual</b>	118.19	57	2.0735		

All f-ratios are based on the residual mean square error.

90% acceptance.

About Interest for the site, (Table 9), this factor had a greater amount of elements of usability perceived by the participants: the provided information, existence of feedback, amused, with understandable instructions, with an amount of images acceptable, and willingness to recommend the site. Most of these elements fall into the interaction, emotions and content areas. It could be suggested, according to what the experiment showed, that a site,

besides to be a positive experience for the visitor, must keep the attention of the user, and to avoid become at the time of being performed a purchase. An important factor that it was thought to be important was the speed of downloading, because it could cause impatience to the user during the time the site downloaded information and pictures, but this element didn't appear during the test, possibly because the users considered that the amount of images was adequate. In previous works it has already seen that a relation exists between the downloading time [8] and the amount of images [18].

TABLE 9: ANALYSIS OF COVARIANCE FOR "SITE WAS INTERESTING".

Type III - Sums of Squares.					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
<b>Covariates</b>					
Contains General Information	5.23303	1	5.23303	4.08	0.0482
Feedback	6.97252	1	6.97252	5.44	0.0234
Site was amused	8.11036	1	8.11036	6.33	0.0149
Understandable instructions	6.01726	1	6.01726	4.69	0.0346
Enough image quantity	6.35094	1	6.35094	4.95	0.0302
Recommend the site to others	6.71726	1	6.71726	5.24	0.0260
<b>Residual</b>	70.5209	55	1.2822		
All f-ratios are based on the residual mean square error.					90% acceptance.

## Conclusions and Future Researches

With the obtained results in this experiment we could find out that usability elements are perceived by a group of Mexican students. These elements can be very useful for a web designer, even more, emphasis can be made for a site designed to sell compact discs. A good disc variety can be suggested as first approach, with clear and precise instructions and information for the user on how to perform a purchase on-line, with no excessive amount of images. All these may generate a pleasing experience for the user when visiting that site. Also, adding the possibility to appreciate what it is planned to buy (capability to listen some extracts of a song, for example), it could very probable to fulfill the expectations that the visitor can have at the time of visiting the site with desire to buy some disc. If this happens, then the possibilities for interest in the visited site, the trust in the offered products, and a sense of security at the time of buying the products, can be greater. Also if these feelings were fulfilled, it would be a high probability that the visitor will continue returning. To have trust in the site is a factor for recommends it to others users, which will guide to a greater amount of visitors and possible buyers.

It is important to know what market the designer and the seller think to retail, since the experiment showed that women reacted different for the desire to visit the site in the future. If the site is exclusively directed to the male sector, then, the detected elements of usability seems to be enough, but if the idea is to include both markets, female and male, it is necessary to perform more researches about what can attract women. Although there were not enough evidences to say the site in English was perceived as insecure, the site in Spanish was slightly perceived as more secure, so, if a designer will propose a new site for a Spanish speaking market, then the site will be consistent with market sector, make it or not bilingual will not bring an added-value for security reasons. A future work could be focused in the origin of a site, a search to see if a site, never less is showed in English, but knowing the fact that the website is Mexican, influenced in the feelings of trust or security for foreign visitors.

This work was a first approach to the usability in some Mexican students, but one of the limitations of this experiment was that a purchase was not really made. Globally, the greater preoccupation of the people who have not made purchases in the Internet has been the security [19], feeling that is safer to make the product purchases in a store. For future works it should be good to integrate a real purchase, not only in commercial sites, also in sites with different market sectors such as: sites of auctions, or sale dedicated stores of specific product (tennis, clothes, posters, etc.), or to make comparison between sites of diverse types of electronic commerce, (B2C, B2B, C2C, etc.). Another restrictions, the survey was made only with students of a single city, Guadalajara, it should be important to

see how other students in other cities perceive the usability's elements, and not only students, also different type of users. Although the economic profiles of the two participant universities are different, the experiment did not make an emphasis of this, but it would be possible for future researches to include the economical variable within the categorical independent variables. Deeper researches in elements like speed of connection and downloading, and response time, affecting perceptions of security, trust or desires to return, could be done. Often the speed and the response time of a site depend on the amount of images. As much the designers spent time drawing complex graphs for a website, a possible problem could be cause to the users at the time of downloading the image. In this work the delays and the amount of images could not be controlled, so future works with these elements would be suggested, like putting different groups of users in equality conditions of Internet connection, to see their reaction about it could be perceived as slow or fast, and its relation with the amount of images. About the experience of the users, it should be interesting to see if those that had more time surfing and purchasing in the internet are more critical about the contents of a website, and how easy or hard they find information, or if the information were well organized. It seems as more information a website has, more interest a user has on it.

It was clear that the use of some navigations-aids are recommended, and makes a website more attractive, there were not evidence of how many images improves the good perception that the user have for the site, it was found that some graphics can help the user to have a better navigation, and to have interest in the site, but a deep investigation is needed to see which symbols can be very sensitive for the users, and giving also attention to the cultural meanings of the image, the size and how many images are enough. Although the English level of the participants didn't give evidence of problems, a future work could include it and how could this affect the perception of security and trust of a web site. Being the English the language of businesses, some advice could be give such as the use of simple and direct questions, and the avoidance of colloquial speech, or to eliminate the, still, a deeper research is suggested.

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# Knowledge Acquisition and Dissemination for Emergency Situation

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## Abstract

Emergency situation is highly uncertain, dynamic, time pressure in making decisions and involves multi organizations and multi jurisdiction level. This paper presents a conceptual architecture that can be used by emergency response taskforce in assisting the victims of the disaster. Flood disaster is used as a case study. The architecture describes the knowledge and communication for flood emergency response management.

## Introduction

Emergency is a condition caused by natural disaster such as earthquakes, floods, storms or man-made disaster resulting from industrial accidents and terrorist attacks with extreme peril to the safety of persons and property. The main goals in emergency interventions are saving human lives and protecting properties. The emergency response operation requires effective and efficient coordination and cooperation among many organizations and various levels. [1] defines an ineffective response operation by the number of lives needlessly lost. On the other hand, inefficient response operation means that the overall cost of saving one lives is overwhelming. This may be caused by many factors such as poor facility, lack or prompt information, missed communication between organizations, unclear responsibility of each organization and inefficient use of resources [2], [4], [6].

Technology can support emergency managers working under stress in terms of supporting crisis decision-making or as a decisional aid to decision managers, managing information overload, supporting first responders, capturing vital information at its source and situation assessment [3], [4]. Emergency management encompassing four main phases: preparedness, mitigation, response and recovery. Failed management in emergency and catastrophic situation resulting from inefficient and ineffective operation drives the adoption of information technology for knowledge acquisition, sharing and communication. Human have to be an integral part of the total socio-technical system, working hand in hand with machine, computers and organization [1]. With the appropriate use of structured information processes and current information technology, the rate and efficacy of organizational and inter-organizational problem solving capabilities in a complex dynamic environment such as emergency situation can be improved.

[8] identifies some of the requirements of an emergency response information system that can provide collaborative knowledge systems to exchange information among relevant communities. He emphasized the needs of a highly flexible, adaptive and structured group communication system. Learning from experiences is an important phase that can help improve future preparedness plan and activities [5]. [2] commented that existing software programs for crisis managements have not successfully met the managers requirements for four main reasons (i) lack of flexibility in representing diverse perspectives in a dynamic situation (ii) lack of familiarity with the systems and knowledge based (iii) programs are designed for single organization use (iv) no existing system includes intelligent reasoning component that can assist managers.

This paper presents a study that has been done on knowledge acquisition and dissemination of information for emergency situation. Flood emergency response management in Malaysia is used as a case study and is presented in section 2. Section 3 describes the proposed architecture for emergency response management and concluding remarks are given in section 4.

## Case Background

Flood is the most common natural disaster occurring in Malaysia which includes flash floods, monsoon flood and mud floods. It is usually widespread in large geographical area and involves large number of victims requiring large scale response operation. Emergency response centre (EOC) will be open based on flood level, to control and manage the situation. Flood EOC in Malaysia is managed manually through a multi-organizational team which follows the standard operation procedure for disaster management produced by Prime Minister Department. The standard operation procedure consists of rules and procedures in handling disaster. There are three levels of flood operation, namely the federal, state and district level. A minister from the Prime Minister Department will chair the committee for the federal level while the State Government Secretary will chair the state committee level. For the district level, the District Officer will chair the emergency committee.

There are more than ten organizations (emergency committees) involved in the EOC, namely the Drainage and Irrigation Department (DID), Royal Malaysian Police Department, Malaysian Army Force, Malaysian Fire Brigade and Rescue Department and others. Each of the organization has their responsibility and plays an important role during and after the disaster. DID of the Ministry of Agriculture is assigned the role of the flood control, forecasting and warning services.

Fig. 1 illustrates the mechanism of disseminating real-time flood information on the WWW used by the DID of Malaysia. Sensors were placed to collect rainfall measurement, river and reservoir water levels at strategic locations identified all over Malaysia. Data from these sensors will be automatically collected and send to the State Master Stations in the form of emails. These data will then be emailed to Ministry of Agriculture server. The DID National Flood Monitoring Centre server will extract the email and display the data on the website. Any flood warning messages will be sent through mobile short messaging service (SMS) to the DID top management officers mobile phones. The event will be informed to the flood management committee if it is an emergency situation. Response task force will be formed and response operation will take place until the flood ends.

[7] highlighted problems in the Malaysian flood warning systems and steps for improvements. Overall, the public main concern is the timeliness of the authority responding to flood problems. In order to achieve timeliness, the use of rainfall instead of water level as a triggering mechanism as practiced in the United States for smaller rivers was recommended.

Several issues in management of emergency response such as how right decision be made based on the data/information received, communication and coordination among the rescue organizations involved, alerting the right party and which part should be the first to know and first to inform with regards to flood. A systematic set up of the emergency management has to be formed to improve the current flood response system. Successful operation depends on effective inter organization coordination and this requires dynamic and distributed decision making with shared common goals and distinct role.

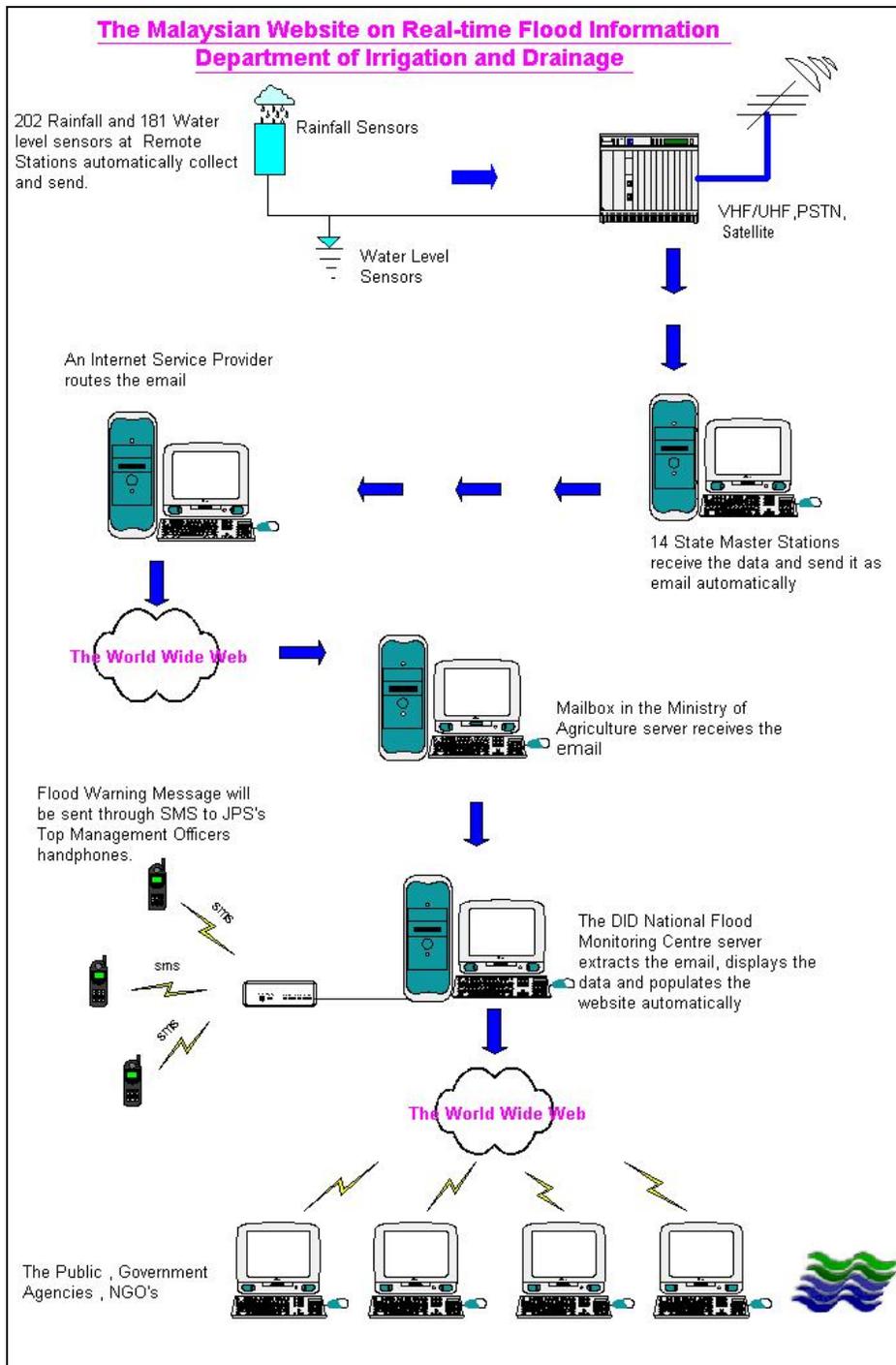


FIG. 1: MALAYSIAN WEBSITE ON REAL-TIME FLOOD INFORMATION

## Proposed Architecture

This study has adopted the knowledge engineering step of designing the architecture for emergency response management. Five steps were taken in constructing the conceptual architecture. The first step of the study is focused on the problem domain where knowledge acquisition is conducted through interviews with domain expert, document reviews and site observation study. Next, knowledge conceptualization is performed where formal description of domain knowledge in terms of primitive concept and conceptual relationship were represented using semantic network. The third step involved ontological analysis and knowledge formalization. The conceptual architecture was designed using UML modeling tool in the fourth step. Finally a non-execution testing using UML walkthrough were conducted for model verification.

The ontology is use as the backbone for building structured and reusable knowledge models. In this study, the ontology is a knowledge model representing concepts and relation between concepts in the flood emergency management. It represents the conceptualization and formalization of the knowledge that has been acquired from domain experts. Fig. 2 and 3 show part of the developed ontology.

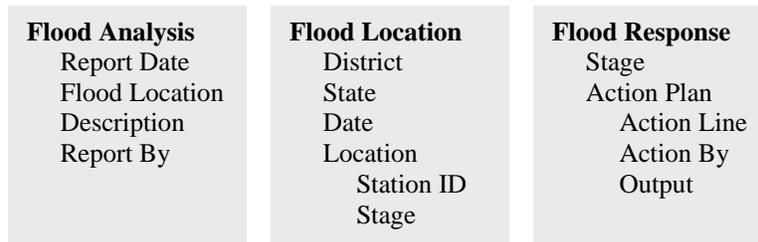


FIG. 2: CONCEPT CLASSIFICATION TREE OF FLOOD ONTOLOGY

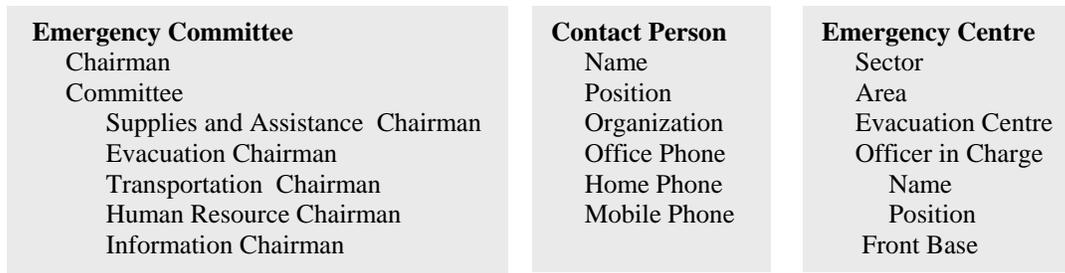


FIG. 3: CONCEPT CLASSIFICATION TREE OF EMERGENCY MANAGEMENT

The proposed conceptual architecture of the flood emergency response management is as depicted in Fig. 4. The architecture consists of seven main modules, which are the user authentication, administration and management of preparedness, recovery, response, mitigation and document.

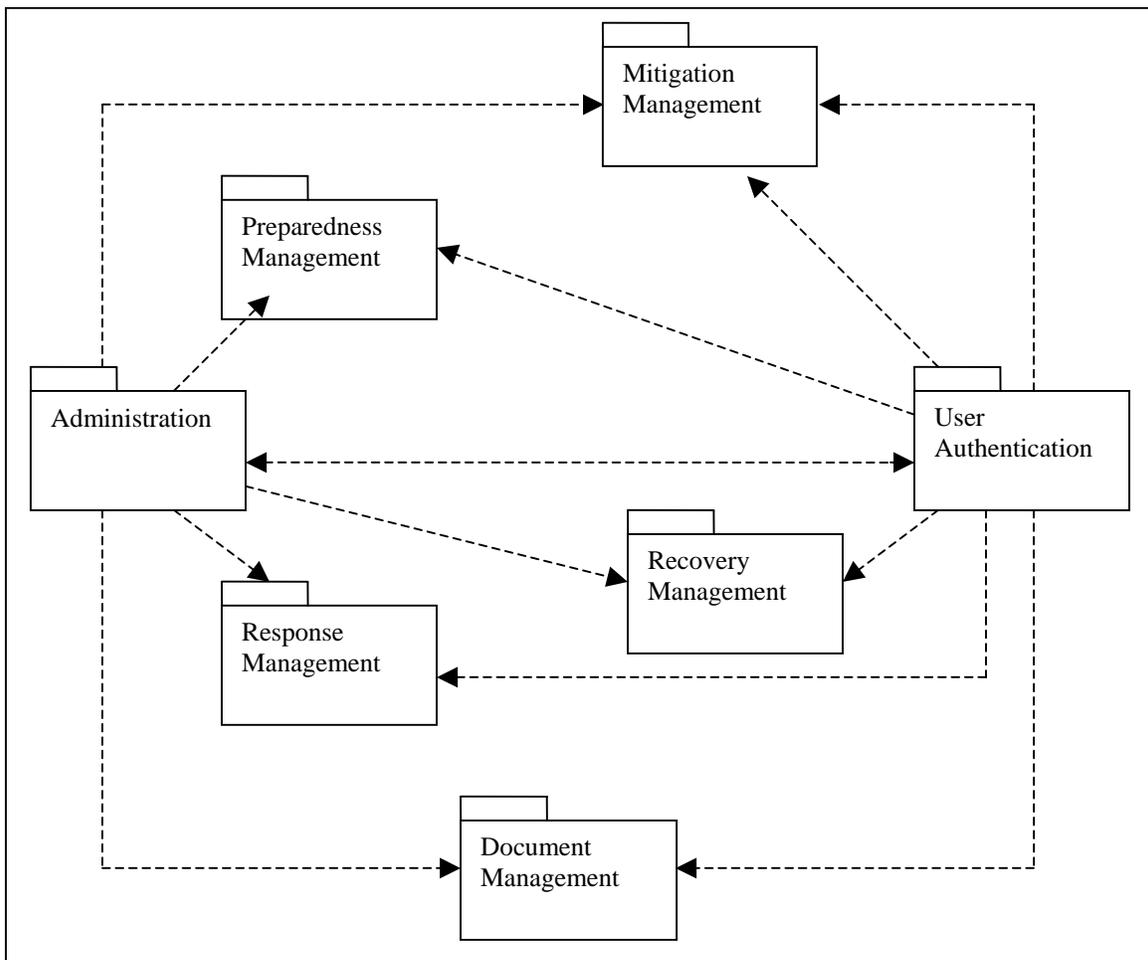


FIG. 4: FLOOD EMERGENCY RESPONSE OPERATION MANAGEMENT ARCHITECTURE

The architecture can be used to implement as a web-based system where information can be obtained and communication can be performed at anytime and anywhere. Intelligent agent based for the purpose of providing autonomous and intelligent component can be incorporated especially in document management module.

## Conclusion

Floods are one of the mother's nature unpredictable events. The unpredictability causes the uncertainty in the situation. The situation is continually changing which brings out the dynamic and complexity of the environment. Efficient and structured emergency response management in this environment has to take into consideration the dynamics, uncertainty and complexity of the situation. Emergency response efforts need to be continually upgraded such that it will reduce the impact of the disaster to the citizens.

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# **Learning Business Management by Doing in a Multicultural and Collaborative Environment: The Case of the Marketing and International Business Department of the University of Guadalajara and the Global Learning Community of the Ohio University**

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## **Abstract**

This paper examines the characteristics, advantages and disadvantages of a collaborative project developed by the Ohio University's (OU) Global Learning Community (GLC) and the Marketing and International Business Department (MIBD) of the University of Guadalajara (UG). The project was designed to build a multicultural collaborative environment where undergraduate students from both universities work together to solve different management related tasks and projects. The aim of the project was to implement the Problem Based Learning (PBL) methodology in a project designed to develop management skills in undergraduate business students from the UG and OU, interested to engage in an international learning experience. It also examines the PBL methodology, and analyzes a way to implement the methodology in a collaborative multicultural business environment. It also describes the way it was implemented using online tools to improve the way students communicate with each others on the early stages of their tasks.

## **Introduction**

One of the features characterizing university education in the 21<sup>st</sup> century is a focus on professional competences development and a vocational emphasis. This is accompanied by greater attention to developing the skills required to be a lifelong learner who can adapt effectively to new situations and respond to changed circumstances. Another notable feature is the extensive use of information communications technologies (ICTs) and the acknowledgement of the need to teach students with and about these technologies. Never before in history, businesses, large and small, have been so deeply involved in and affected by international business. Globalization of the markets and the economy has made management education a multicultural task. Understanding business making in all cultures is increasingly important for any business professional in order to succeed.

All of these have increased in recent times the interest in the potential of PBL for management education. Indeed, traditional approaches to business education curriculum have been increasingly criticized for having little relationship with what is important for succeeding in business (Pfeffer & Fong, 2002).

## **Problem Based Learning**

Problem-based learning, which was first conceptualized in the 1970s to better prepare students for careers in medicine (Boud & Feletti, 1997), grew out of a response to the still common complaint by employers that many university graduates are not adequately prepared for the working world they enter after school. Among other complaints, critics of the traditional educational system say that graduates' knowledge is overly theory-based as opposed to being reality-oriented, that graduates lack communication skills and that they are not aware of important issues in their fields or in society in general (Wilkerson & Gijsselaers, 1996). PBL strives to rectify these problems and more fully prepare students for the challenges that await them in life. In order to accomplish this goal, a shift in the concept of education and learning is necessary, moving from being *transmission of knowledge* to becoming a *guided process of discovery* (Dewey as cited in Boyer, 1998). Throughout this process, students "learn how to learn" and actively participate in their learning by thinking critically and analytically. After emerging from PBL projects, students have acquired a number of skills, including leadership, communication and research skills that they can transfer to their careers in a variety of ways (Duch, Groh, & Allen, 2001).

While PBL projects differ in many aspects, three basic features are common among them (Wilkerson & Gijsselaers, 1996):

1. PBL is learner-centered. Students are active in the learning process as they determine what will be learned and why, ask questions and offer possible explanations.
2. Teachers in PBL courses are facilitators rather than disseminators of knowledge. Their role remains crucial, but it changes to one of giving constructive feedback, indirectly leading students through questions and knowing when to allow students to work through difficulties on their own and when to step in with guidance.
3. Problems are the framework for learning. These problems are inherently interesting, complex, multidisciplinary, real-world based, and many times have no one right answer. They require that students be able to analyze, synthesize and evaluate information.

PBL represents a shift from the traditional perspective, focusing the teaching methods, to a perspective that puts the students' learning in focus and that brings consequences for the education as a whole (Albanese and Mitchell, 1993; Barrows, 1986; Boud and Felletti, 1991). PLB has three distinctive features (Dahlgren, M.A. Castensson & Dahlgren, L. O. 1998):

- Real life situations as a starting point for the learning.
- Self-directed learning.
- Work in groups.

Real life situations as vignettes for the learning help the students to get a notion about the kind of context within which the knowledge is to be applied. Learning is thus *self-directed* which means that the students themselves take responsibility for their learning. It also means that they have to integrate aspects from different knowledge areas as they relate to the case, problem or situation they wish to resolve.

In PBL problem-solving is integrated with the learning process to enhance self-directed learning and problem-solving skills, which are essential components of professional competence. The aim is to promote learning of how to formulate problems and find proper information, how to apply the knowledge and how to evaluate ones own work. These skills are also emphasized in most of the assessment schemes.

One of the most characteristic features of PLB is the work in small groups, the tutorial sessions, comprising between five and ten students who work together, assisted by a tutor or a tutor team. The function of tutorials within PBL programs differs from what we think of traditionally as tutorials, which often occur as an event where the students are supposed to apply and discuss content already conveyed to them via lectures or acquired via independent studies. In PBL, the tutorial is instead the start of the learning process, where students are supposed to problematise vignettes in order to formulate their learning needs as questions. After studying independently, the students then return to the group to discuss and synthesize their new knowledge.

As to the teacher role in education, the intentions of PBL methodology are to change it from traditional transmission-oriented perspective to an interaction-oriented tutor's role. This change is most prominent as regards the teacher's role in the tutorial sessions, and is sometimes referred to as of a facilitator.

A PBL project begins with a problem, query, or puzzle that is based on complex, real world situations. Information is purposely withheld so that students will need to use critical thinking and prioritizing skills. A typical sequence of events in a PBL project is discussed by Engel (1997): After reviewing the project, the learners work either in their permanent teams or together as a class to organize ideas and previous knowledge on the subject. They then pose questions, defining what they know and don't know, and eventually discuss resources and assign responsibility for questions. At this point, individual team members research their topic and then reconvene to explore their newly learned information and refine remaining questions and/or generate new questions. Guest speakers may be brought in to clarify issues for the students, and occasional student-team presentations on project status are common as well. The PBL process is cyclical—students continue to evaluate their information, seek and find new information from a variety of resources and hone their findings until they have the necessary information to make a recommendation. This learning process is thus a very active, integrated, and cumulative one (Watson, 2002).

There are numerous benefits to using PBL projects in university courses. One major benefit is that students become life-long learners—the set of skills and sense of empowerment they develop will enable them to succeed in a variety of challenging situations throughout their lives (Boud & Feletti, 1997). Also, they are more fully prepared to

succeed in the complex and information-laden world outside the classroom (Boud & Feletti). Linked to this benefit is the fact that students' self-confidence increases as they meet goals that they may initially think are unattainable or are otherwise beyond their ability. In addition, students are able to use their own knowledge and experiences as they learn new information and skills (Ross, 1997). A fifth plus is that students are able to sift through and use up-to-date materials and content (Boud & Feletti). In fact, it is crucial that students find only relevant and recent material as they make their decisions. Developing strong teamwork and communication skills are two other benefits for students working in PBL projects. Additionally, as students work through these projects, they acquire the ability to divide large projects into smaller, manageable components. Regardless of the student's field, this is an indispensable skill. Finally, PBL projects generate enthusiasm in both students and faculty (Boud & Feletti). While these projects can undoubtedly be frustrating at times, they are equally rewarding when students realize the magnitude of their accomplishments.

Context, defined here as the circumstances that give meaning, plays an important role when designing the locus of control and the nature of the case for the problem solving situation. Context has been pinpointed as a critical ingredient of PBL. Edens (2000) notes,

Those authentic contexts are vital to the many fields that requires specific professional training. That, of course, is a dramatic shift from the traditional view of cognitive development resulting from one's reception of knowledge transmitted by the instructor. PBL holds promise as a teaching tool that provides for the acquisition of problem solving skills to meet the challenges of the twenty first century workplace. (p. 5)

Although PLB offers the potential for authentic context, the management education literature has yet to formally address what elements of PBL context are important or how to bring that theoretical knowledge into practice.

Sherwood ((2004) contends that through active design and management, context is a critical ingredient to successful learning with problem-based approach, and proposes a framework to facilitate the decision making for context design in PBL management education. Table 1 presents this decision-making framework. It includes both social and physical dimensions of context that are important for learning the tacit and explicit knowledge.

TABLE 1: A FRAMEWORK FOR CONTEXT DESIGN FOR PROBLEM-BASED LEARNING IN MANAGEMENT EDUCATION

<i>Social Dimensions</i>	<i>Physical Dimensions</i>
Participants (internal and external) Who will participate? What level of real-time interaction between participants	Goals (internal and external) At what levels will goals be established?
Social structure (internal and external) Where will relationships be established between participants? What types of relationships will be established?	Technology (internal and external) To what degree will the physical workplace be developed? To what degree will the process being applied to the problems be segmented or holistic?

Source: Sherwood, A.L. (2004) Problem-Based Learning in management education: a framework for designing context. Journal of Management Education, 536-557

In order to obtain the benefits of PBL, it is important that a number of things be taken into consideration (Wilkerson & Gijsselaers, 1996). The project problem must be constructed carefully. It should be interesting and achievable for the students and appropriate for the goals of the course while at the same time being complex with no obvious and/or single solution. Also, teachers should guide without being either too passive or too aggressive. Withholding information or providing too much of it can seriously damage the success of a PBL project. Finally, curricular structures must be flexible enough to allow for the unpredictability of a PBL project. Schedules may change, problems may arise, new discoveries may redirect the project's direction and goals may become modified.

Problem-Based Learning has been used effectively in many types of university classrooms, from medical, to business, to science courses. Students in these courses benefit not only from the skills they develop, but from the creativity they unleash and the close community they build. Teachers benefit by forming more meaningful relationships with their students and developing their own ability to guide students through the messy process we call learning.

## **Project Background**

### **The Marketing and International Business Department of the University of Guadalajara**

The University of Guadalajara is a public decentralized body of the State of Jalisco Government in Mexico,, whose objective is to prepare and update the technical, bachelors, professional technicians, professionals, graduates and other human resources required for socioeconomic development; to organize, perform, foster and divulge all scientific, humanistic and technological research; to rescue, preserve, increase and divulge all culture, science and technology. The education extended tends towards the students' holistic development, their capacities' and personality's full development; to foster in them the tolerance, the love of country and humanity, as well as the solidarity conscience in democracy, in justice and in liberty. Is directed by a social solidarity purpose, holding it above any other individual interest; Regulates its activities, in accordance with the constitutional principles of liberty of teaching, of research and cultural diffusion; Examines all currents of thought and historical and social processes without constraint, with the objectivity of its academic nature; Guarantees the participation of the university community in the collective definition and determination of its policies, plans and programs oriented towards meeting its goals, the development of activities inherent to its academic and social service functions and the compliance of its responsibilities with society; Seeks the harmonic linkage between the teaching, research and extension functions; Contributes, based upon the results of its academic business, either by itself or in coordination with other physical or judicial persons, to the advancement of the Mexican and Jalisco people, to the study and solution of its problems as well as to the preservation of national sovereignty; and Makes no discrimination either by reasons of ideology, religion, moral, social, ethnic, sex, nationality, or of any other nature.

The Marketing and International Business Department of the University of Guadalajara is part of the CUCEA (Economic and Administrative Sciences University Center) which in turn is part of the University Network in Jalisco State. Its mission is to educate quality professionals in the areas of marketing and International Business. It focuses in developing a high sense of social responsibility among their students; creative professionals, able to solve the problems they face, with an international vision balanced by the respect to the national values and a willingness to maintain a commitment with the local, regional and national development of our society.

### **The Global Learning Community**

Ohio University's Global Learning Community was designed in 1996-97 by a university wide committee of faculty and administrators. The purpose of this undergraduate program is to provide opportunities to internationalize curricula across campus. It offers a thirty-credit, two year undergraduate residential certificate. Admission is competitive and open to all majors, and the certificate is intended to complement all undergraduate degree programs at the university. Its program of study is based on team-based projects having international themes, which are in some cases undertaken in cooperation with real-world clientele (Manhire, Emery, Mould, & Noland, 2002). Two international experiences abroad and two years of language study (or equivalent proficiency) are required to fulfill certificate requirements. Faculty in the GLC is competitively selected from across campus to deliberately form a multidisciplinary teaching team. Typically, there are three core faculty serving the GLC by way of half-time temporary appointments. These faculty returns to their full-time permanent faculty appointments after two or three years. In this way, since its inception, the GLC has drawn its faculty from the university's colleges of arts and sciences, business, communication and engineering. A permanent director, who is also a faculty-team member, leads the GLC.

While the foundation for the intellectual *content* of the GLC's program of study consists of international themes, academic and vocational *processes* are also important. These include developing student proficiencies such as the ability to identify and conduct appropriate research, many times using computer resources, the ability to work

in multidisciplinary teams and the ability to communicate effectively through writing and public speaking. Students are thus able to develop professional skills applicable to life-long learning as they work within a global and societal context (Manhire et al, 2002). Also important in the GLC is the sense of community. Many students live together in Bromley Hall, which is also where the GLC's classroom, computer laboratory and administrative office is located. Also included in the communal component are extracurricular student-faculty activities such as dining together and arranging and attending cultural events together (Manhire et al, 2002). Certificate requirements include eight GLC project-courses (five in the first year and three in the second year), two international experiences abroad, and proficiency in a foreign language through the sophomore level. In all project courses, students work in teams on projects having international themes.

First year courses include:

- Global Learning Community Introductory Project
- Business and Communication in Transitional Societies
- Building Cross-National Alliances
- Communication and Development
- Global Leadership Conference

Second year courses include:

- Global Economic Trends and Strategic Alliances
- Global Competition and Industry Trends
- Starting a New Venture/Initiative
- Continuously scheduled courses include:
  - International Internship
  - The Global Experience

The first international experience requirement is fulfilled through the course "Business and Communication in Transitional Societies," in which GLC students collaborate with students at a foreign university. After communicating online through the GLC database for five weeks, GLC students spend two weeks overseas, completing their projects, giving final presentations and submitting a final bilingual report. The second international experience is satisfied either through a formal GLC internship abroad (or an internationally-oriented domestic internship) or by completing one of the more traditional study abroad programs available at Ohio University. GLC students are advised to complete auxiliary coursework in (cultural) anthropology, micro- and macroeconomics, geography, (nonwestern) history, political science and sociology.

The intellectual and professional development of GLC students is achieved primarily through project- and team-based learning concepts from problem-based-learning pedagogy (PBL).

#### **Methodology of the Joint Consulting Project**

In their efforts to develop better ways to improve the quality of their students, the Marketing and International Business Department ([http://www.cucea.udg.mx/paginas/gestione/d\\_mkni/index.php](http://www.cucea.udg.mx/paginas/gestione/d_mkni/index.php)) of the University of Guadalajara (<http://www.udg.mx>) signed an agreement with the Ohio University's (<http://www.ohio.edu>) Global Learning Community (GLC) (<http://www.ohio.edu/glc/>) to join the program designed by the GLC to improve their students skills and capabilities through the use of an undergraduate program designed to provide opportunities to internationalize their curriculum. The project was developed from September 2002 to May 2003. During this period, two programs were developed, building bi-national, bi-lingual student teams formed with mixed students from both universities and guided by a team of professors from both universities as well. Eight project teams were formed in the first part of the project, with five OU students and five UG students each one. Every team had two professors (one of each University) tutoring the activities. The first phase of the project included the visit of thirty-four OU students and three faculty members to spend nearly three weeks in Guadalajara, completing their projects, giving final presentations and submitting a final bilingual report. Five project teams were formed in the second part of the project with five OU students, two UG Students and two professors (one of each University). The second phase of the project included the visit of ten UG students and three faculty members to spend two weeks in Athens, completing their consulting projects, giving final presentations and submitting a final report.

UG students picked up to join this project were selected from the population of sophomore and junior students from marketing and business majors interested in developing an international learning experience. Students were required to speak English to join the program.

The OU implemented an online intranet where students and professors met online to develop the initial part of the projects. Final part was made in situ when both, students and professors traveled to the UG facilities (in the first part of the project) and OU-GLC facilities (in the second part of the project) to make a presentation and report to the client at the end of the project.

Consulting projects in Mexico included:

- Development of teaching strategies for a school for children with disabilities (Centro para la atención múltiple, School for children with disabilities)
- Marketing research for entry mode and penetration strategy plan to US for restaurant La Chata
- Marketing research for “Casa Canela” fine arts and crafts retailer in Mexico and marketing plan to improve sales.
- Marketing plan for a Disco Neon Hair Gel for Industrias Gane, a Mexican manufacturer of cosmetic products. Students also researched into the possibility of international sales of the item.
- Development of a strategy to introduce MEXLUB’s (Mexicana de Lubricantes S. A., a Mexican oil lubricants producer) new line of lubricants Akron, to the Mexican market.
- Students on Team Card Systems were asked to investigate the possibility -and desirability- of entering the US market.
- Team BQM developed a research on the US market for alternative medicines, they played special attention to legal issues, costs patents, trademarks, etc.
- Team Sombrillas pursued various avenues of primary and secondary marketing research to develop a promotional strategy for a small restaurant located in Guadalajara downtown (Las sombrillas del Hospicio).

Consulting projects in US included:

- Development of a market research study for Carburundum Inc., an industrial company attending the auto parts industry, interested in attending the Mexican market.
- Marketing research for Global Cooling, Inc. a company engaged in the design, manufacturing and selling of solar powered refrigerators interested in developing the Mexican market.
- Marketing research for Easy Grout, Inc. a company with a patent suitable for improved house building interested in entering the Mexican market.
- Twin City Foods team engaged in the search of Mexican suppliers of fresh vegetables and fruit concentrates for this Ohio company interested in developing new suppliers for their raw materials.
- Black Diamond team researched the Mexican furniture industry for the Ohio’s company Black Diamond, Inc, who were interested in expanding their activities into Mexico.

## **Learning Outcomes and Results from the Mexican Students’ Perspective**

As has been stated, PBL is centered on problems and on student learning. To gain insight into the success of the joint consulting program, a review of the Mexican students’ feedback was undertaken. Forty Mexican students involved in the project were asked to self-report using standardized Likert-type as well as open-ended questionnaires focused on learning. The 7-point Likert-type scales asked Mexican students to either rate the effectiveness (1=completely ineffective; 2=somewhat ineffective; 3=moderately ineffective; 4=not relevant; 5= moderately effective; 6=somewhat effective; 7= completely effective) of the pedagogy in terms of learning or to rate the courses against similar traditional courses. The open-ended questions asked the students to comment on what contributed to their learning, and what were the major disadvantages of the pedagogy and the experiment itself.

It is important to state that the measurement instrument was not tested for reliability and therefore the results can only provide directional evidence rather than statistically significant findings.

The questionnaires were not intended to measure the success of the project nor the PBL methodology specifically, but the results provide indications about the degree of success achieved by the project and the methodology. The key and representative results are shown in Table 2 and described below.

One of the main objectives of PBL is the development of useful professional competences. The results of the questions toward this show support for effectiveness. The overall qualitative comments were positive and even somehow enthusiastic. As one student stated “The program is designed to mentor students, not to hand-hold. It doesn’t open doors for you. It teaches how to break them down”.

Other important objective of PBL is the development of reasoning and problem-solving skills. Both, quantitative and qualitative data demonstrated support that this objective was met. Student reported the project challenging and interesting. Additional insights that the problem solving was enhanced can be found in the qualitative answers. One student commented: “Participating in the joint consulting project was a highly rewarding experience. Our team did extensive market and industry research pertaining the expansion of La Chata Restaurant. The information was then compiled into a presentation, which our client loved!”

TABLE 2: RESULTS OF QUANTITATIVE MEXICAN STUDENTS’ FEEDBACK ON LEARNING OUTCOMES

<i>Items</i>	<i>Population size = 40 M/SD</i>
The course helped me in developing self-esteem and confidence	6.40/0.32
The methodology applied turned me into a more independent learner	6.50/0.27
I found the course challenging and interesting	6.10/0.64
This methodology helped me think independently about the task at hand	5.25/0.80
My interest in the subject area has increased	6.12/0.51
I had to use and apply knowledge gained in other courses to solve the problems encountered	5.82/0.89
I studied and put effort in my class	6.82/0.23
The instructor willingness to listen to student questions and opinions was appropriate	5.10/0.65
My learning increased in this course	
Rate the quality of instruction in this course as it contributed to your learning	5.89/0.72
	6.50/0.23

A not less important objective of PBL is the development of self-directed learning strategies. When asked if the course was effective in helping them to think independently about the subject matter, Mexican students indicate that this was more so than in other courses. Qualitative data also indicate students developing self-directed learning strategies. One student commented “Working with Card Systems de Mexico in Guadalajara was interesting and fun. Our task at first was to research and decide if Card Systems de Mexico would be able to expand into the North American region although after some research it was quickly decided that they had a lot of work to do before thinking about expanding. Therefore, we provided Card Systems de Mexico with suggestions on how they can rise above the national competition and grow before going internationally. We suggested marketing strategies which included ideas and prices about a website, and magazine advertisements. Along with this we suggested distribution techniques and organizations they should consider joining”.

Other important objective is to increase motivation for the learner. Here again, students rated this course as highly interesting and that their interest in the subject area increased. A Student noted: “I would have to say that this trip educated me more than any amount of classes I could take in a quarter at my University. The Director of Marketing of Mexlub was very interested in what we have to say, and we also provided them with the marketing research they needed to make some very important decisions for the company in the future. I felt that our group had incredible communication even though there were few teammates that spoke the other’s language very well. Overall, I couldn’t imagine not having this experience because it changed me and my views on many different things”.

The objective of becoming effective collaborators was not measured quantitatively, but the qualitative data supported that this objective was met as well. A representative comment from an US student was: “The trip to Mexico and the joint consulting partnership with the University of Guadalajara was a wonderful and worthwhile venture. I am confident in the friendships that I made and the work we did for Casa Canela. I learned many things

about Mexican culture, working together in a team, and things about my own personality and prejudices. I am truly grateful for the experience”.

## Conclusions

In summary, it was found that all students in the project measurably improved their professional competences, and demonstrated a higher level of commitment to their studies. Third and perhaps the most important is the finding that PBL methodology also develops a strongest self-esteem in the students. They have to be able to handle uncertainty; to acquire information by they self; get feed back from teammates after the use of the information; do not avoid discussions or cognitive conflicts and practice together but learn individually. All of these help them to become more certain of their knowledge and capacities. PBL offers great potential. As more experience is gained using this approach for management education. We will be able to refine and improve a methodology that promises to develop in the management students competences very difficult to develop through traditional courses.

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# Learning Organization Dimensions and its Impact on Private Higher Learning Institutions' Financial Performance

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## Abstract

Although the learning organization concept has been established few decades ago, the review of literature reveals limited studies on the linkage between learning organization dimensions and financial performance particularly in the higher learning institutions context. Thus this study seeks to address and fill the gap in the body of knowledge on this issue. This study, which is part of a larger study, provides a model that links the select institutional characteristics, learning organization dimensions and perceived financial performance. The learning organization dimensions found to be positively related to the financial performance. On the other hand, three of the institutional characteristics: age of the institution; level of institutional commitment to institutional/professional service and institutional level of commitment to effective teaching and learning were jointly affecting the financial performance. This paper is able to provide comprehensive empirical information for human resource development (HRD) scholars and practitioners on their endeavor towards developing a learning culture in their organizations.

## Introduction

No doubt, businesses are amenable and keen to embrace the idea of a learning organization. The rapidly changing marketplace is forcing leaders to identify new ways to develop organizations that would be skillful at continuous adaptation and competent to look forward to the need for change (Goh & Richards, 1997). Indeed, to sustain competitive advantage in today's global education market, private higher learning institutions (PHLIs) need to increase the learning capacity and make paramount shift from the traditional vertical organization (bureaucratic organization) to learning organization paradigm that works well in the turbulent environment (Daft, 2000; Robbins & Coulter, 2002, Power & Waddell, 2004). According to Marquardt (1996), learning organization is a new form of organization that is capable to:

1. Anticipate and adapt more readily to environmental impacts
2. Accelerate the development of new products, processes, and services
3. Become more proficient at learning from competitors and collaborators
4. Expedite the transfer of knowledge from one part of the organization to another
5. Learn more effectively from its mistakes
6. Make greater organizational use of employees at all levels of the organization
7. Shorten the time required to implement strategic changes
8. Stimulate continuous improvement in all areas of the organization (p.2)

The new learning organizations will be able to transform the way of thinking and "harness the collective genius of its people at the individual, group and system levels" (Marquardt, 1996, p.2). They also be capable of systematically improve performance and effectiveness, which is crucial to face the challenges of globalization and information and communication technology (ICT). Without a doubt "managers who succeed in today's turbulent business environment are those who learn quickly and apply that learning to unpredictable rapidly occurring new situations" (Daudelin & Hall, 1997, p.13). Moreover "it is hard to find a manager today who does not give at least lip service to the importance of building a learning organization (Garvin, 2000, p.ix). Indeed, it is increasingly and widely accepted that at the present time, one of the most important source of competitive advantage is the ability of an organization to learn faster than its competitors (Burnes, Cooper & West, 2003; Campbell & Cains, 1994; Chan, Lim & Keasberry, 2003; Dixon, 1997; Marquardt, 1996; Marquardt & Reynolds, 1994; Schein, 1996; Schwandt & Marquardt, 2000; Senge, 1990).

In response to the global education market challenges, PHLIs must grow steadily with a dynamic learning culture whereby the future success of the institutions relies on continuous learning and adapting to the myriad of changes prevailing higher education industry. It is believed that “while culture in particular has the ability to manifest itself in the overriding ideologies and established patterns of the day, an organization’s learning capacity will determine its strategic direction” (Murray & Chapman, 2003, p.275). On the way to bring systemic change in PHLIs, the ability to learn collectively is the biggest concern. Facilitating organizational learning is the most effective way to improve academic learning and revitalize the institutions where the pursuit of intellectual interests and professional collaborations are supported and encouraged. Besides this, PHLIs must continue to develop and build on the strengths of academic and non-academic members who are the pillars to promote financial performance.

Leaders in PHLIs must use their invaluable knowledge and experience in creating a tangible structural support system that will foster the development of a learning culture. Indeed, developing and promoting a learning culture is one of the most appealing roles of the leaders at the present time. Yang (2003) asserts that a learning culture is a notion that “reflects organizational behavior from the perspective of learning and development” (p.152). In addition, the development of a learning culture facilitate private colleges to employ their “knowledge and experience for establishing and achieving desired goals and learning about wisdom as the process of discerning judgments and action based on knowledge” (Wang & Ahmed, 2003, p.11). Perhaps, the ability of the PHLIs to learn and adapt to their environment besides their capacity to change and develop all together, depend on cultural forces that challenge their capability to learn (Murray and Chapman, 2003). Wong (2003) says:

A learning culture allows its people to behave as proactive problem solvers and learners while a learning leader believes in its people and their ultimate good human nature. A learning culture has the basic assumption that solutions to problems derive from a pragmatic search for truth and that truth can be found anywhere, depending on the nature of the problem. The ... [leader in an organization] has to build a learning culture that continues to learn and s/he has to realize that s/he does not know and must teach others that s/he does not know (p. 245).

A review of the literature reveals that learning organization is likely to lead for increased organizational performance. Nevertheless, guidelines to help implement the idea has been lacking and less empirical research exist to support the significant relationship between learning organization and organizational performance (Chaston, Badger & Sadler-Smith, 1999; Ellinger et al., 2002,2003; Hedges, 1997; Jashapara, 2003; Phillips, 2003; Mayo & Jank, 1994; McHargue, 1999, 2003; McHugh, Groves, & Alker, 1998; Power & Waddell, 2004; Reynolds & Ablett, 1998, Selden, 1998, 2001; Wang & Ahmed, 2003; Yeo, 2002a, 2000b, 2003a, 2003b). Thus, this study intends to fill the gap in the body of knowledge pertaining to learning organization and organizational performance with specific focus on Watkins and Marsick’s (1993, 1996) learning organization dimensions and perceived changes in financial performance of private colleges in Malaysia. This study addressed the following questions:

1. To what extent do the dimensions of the learning organization independently explain observed variances in perceived financial performance improvement measure?
2. To what extent can select institutional characteristics independently explain observed variances in the dimensions of the learning organization?
3. To what extent can select institutional characteristics independently explain observed variances in perceived financial performance improvement measure?
4. To what extent do the dimensions of the learning organization and select institutional characteristics jointly explain the observed variances in perceived financial performance improvement measure?

## **Relevant Empirical Studies**

Selden (1998, see also Selden & Watkins, 2001) has evaluated the relationships between the characteristics of learning organizations and company characteristics and knowledge and financial performance in family-run firms. Selden used the Dimensions of the Learning Organization Questionnaire (DLOQ) developed by Watkins and Marsick (1993, 1996) as the evaluation instrument for his study. Selden (1998) found that all of the seven dimensions of the learning organization were significantly correlated with financial performance. Of the seven

dimensions of learning organization, systems to capture learning represented the most variance in financial performance. In addition, empowering people to a collective vision also largely represented the variance in financial performance.

Another study has been carried out by McHargue (1999, 2003) to examine the relationship between organizational characteristics and learning organization dimensions and three performance outcomes, namely financial, knowledge and mission performance in nonprofit 501(c)(3) human service organizations. McHargue (1999, 2003) made slight alterations on the DLOQ so that it can be used successfully in the nonprofit sector. In her study, the seven dimensions of the learning organization were found significantly related to financial performance. Systems to capture learning established the strongest relationship with financial performance.

Hernandez (2000, 2003; see also Hernandez & Watkins, 2003) studied the ways in which learning organization dimensions impact the process of tacit knowledge transfer, knowledge performance and financial performance within private manufacturing organization in Colombia. Hernandez translated the DLOQ into Spanish so it could be used with Spanish-speaking populations while preserving the original ideas across the linguistic and cultural boundaries. Hernandez found a positive structural relationship between the seven learning organization dimensions and the transfer of tacit knowledge process. The transfer of tacit knowledge process consecutively showed a positive influence on financial performance. In fact, the DLOQ were strongly correlated with knowledge performance compared to financial performance.

Ellinger et al. (2002, 2003) examined the relationship between the learning organization concept and firms' financial performance. To assess this association, the authors obtained managerial responses to the Watkins and Marsick's DLOQ along with both perceptual and objective measures of the firm's financial performance. The secondary financial data (return on equity, return on assets, Tobin's q, and market value added) was drawn from the COMPUSTAT (1998) and the Stern Stewart Performance 1000 (1998) financial databases. This study suggests a positive association between the learning organization concept and the perceptual and objective financial outcome variables.

## **Conceptual Framework**

Watkins and Marsick's (1993, 1996) learning organization model has the capacity for integrating people and structure to budge an organization towards continuous learning, change and development. The approach taken by Watkins and Marsick has seven distinct but interconnected learning organization dimensions: (1) creating continuous learning opportunities, (2) promoting inquiry and dialogue, (3) encouraging collaboration and team learning, (4) establishing systems to capture and share learning, (5) empowering people to a collective vision, (6) connecting the organization to the environment, and (7) provide strategic leadership for learning. These seven learning organization dimensions were adopted as the independent variables for this study, while the dependent variable is perceived financial performance improvement measure which was adopted from Watkins and Marsick's (1997) Dimensions of the Learning Organization Questionnaire (DLOQ). The select institutional characteristics for this study were age of the institution, number of full-time employees, perceived level of institutional commitment to research productivity, effective teaching and learning, institutional/professional service, and community service. The research framework for the present study is shown in Fig. 1.

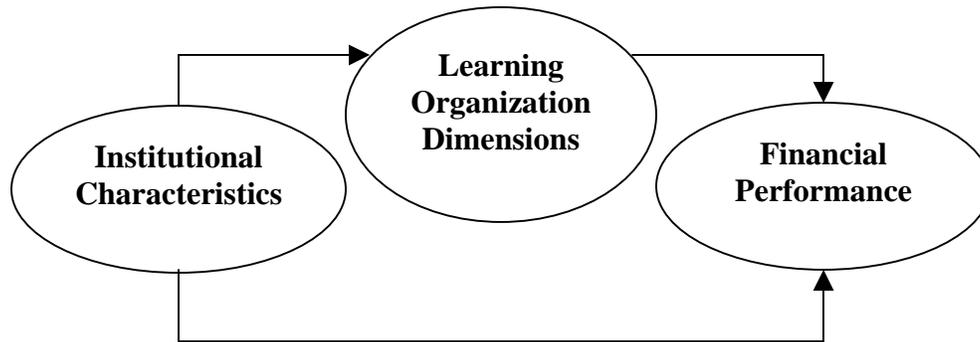


FIG. 1: CONCEPTUAL FRAMEWORK

## Methodology

The survey instrument for this study comprised Watkins and Marsick's (1997) DLOQ to measure seven action imperatives of the learning organization and perceived changes in financial performance. The DLOQ used a six-point Likert Scale (1 = almost never to 6 = almost always). Several studies have been conducted to establish the reliability and content and predictive validity of the DLOQ (e.g., Ellinger et al., 2002,2003; Hernandez, 2000, 2003; Hernandez & Watkins, 2003; Lim, 2003; McHargue, 1999, 2003; Selden, 1998; Selden & Watkins, 2001; Sta. Maria, 2000; 2003; Sta. Maria & Watkins, 2003; Watkins & Marsick, 2003; Yang et al., 2004; see also Watkins, Selden, & Marsick 1997; Watkins, Yang, & Marsick 1997; Yang, Watkins, & Marsick, 1998 in Selden 1999). The Cronbach's Alpha value in the previous studies for each of the dimensions of the learning organization ranged from .70 to .90. All the Cronbach's Alpha coefficients for the financial performance cited in previous studies exceed .70 except Selden's (1998) study, which showed an Alpha value of .68.

The unit of analysis for this study was private colleges with non-university college status whereby they were represented by human resource managers or personnel who were believed to be at the right position in responding to the survey questionnaire. Based the latest directory issue of the Study in Malaysia Handbook (4th International Edition, 2004), as of January 2004 there were 468 private colleges operating in Malaysia and of which 350 was selected as the sample for this study. In view of the fact that the private colleges with non-university college status were geographically dispersed, stratified proportionate random sampling method was used so that the colleges located in the thirteen states of Malaysia represent the sample of this study.

A self-completion mailed questionnaire was used to collect data from the selected sample. A total of 238 responses were used in the final analysis for this study. This final sample represented 51% of the total population of private colleges in Malaysia. The collected data was tabulated and analyzed using SPSS version 12.0. Research question #1, #2, and #3 called for the examination of bivariate relationships. Simple regression was used to measure the bivariate relationships. Coefficients of determination, R square ( $r^2$ ), which provides the indication as to the amount of variation in the dependent variable that could be accounted for by the independent variables (Raymondo, 1999) were calculated to interpret the regression coefficients. Finally, research question #4 called for exploratory multiple-regression analysis.

## Findings and Discussions

Research question #1 asked to what extent do Watkins and Marsick's seven dimensions of the learning organization independently explain observed variances in perceived financial performance improvement measure. Simple regressions, between the seven learning organization dimensions and financial performance showed that all the seven dimensions were significantly correlated with perceived financial performance measure ( $p < .0001$ ). The result of this analysis is in Table 1. The positive and significant relationships of the seven dimensions of the learning

organization and the performance improvement measures support the findings of other studies (Hernandez, 2000; McHargue, 1999; Selden, 1998).

TABLE 1: SIMPLE REGRESSION COEFFICIENTS OF THE DIMENSIONS OF THE LEARNING ORGANIZATION WITH FINANCIAL PERFORMANCE

Learning Organization Dimensions	Standardized Coefficients ( $\beta$ )	Coefficients of Determination ( $r^2$ )	p
Continuous Learning	.634	.402	.0001
Inquiry and Dialogue	.413	.171	.0001
Team Learning	.582	.339	.0001
Embedded Systems	.638	.407	.0001
Empowerment	.557	.310	.0001
Systems Connections	.485	.235	.0001
Provide Leadership	.662	.438	.0001

Among all the seven dimensions of the learning organization which were positively and significantly related with financial performance ( $p < .0001$ ), provide leadership showed the strongest relationship at ( $\beta = .662$ ,  $r^2 = .438$ ). Provide leadership can explain fourth four percent of the financial performance in the Malaysia's private colleges. This indicates that leaders in Malaysia's private colleges support their employees requests for learning opportunities and training, share up to date information across the institution, empower their staffs, being a good mentor and coach, look ahead in favor of opportunities to learn, and ensure that the institution's actions are consistent with its goals. However, the higher percentage of the variance in both the perceived performance outcomes represented by the dimension provide leadership could be credited to the fact that respondents were at a higher rank in the institutions. The value placed by the respondents on providing strategic leadership for learning and its influence on financial performance may perhaps support their role as leaders (Selden, 1998). Thus, this should be seen as one of the limitation of this study. However, the present finding is consistent with a great deal of the literature on learning organization and leadership.

Continuous learning ( $\beta = .634$ ,  $r^2 = .402$ ) showed the second strongest relationship with financial performance. This dimension represented 40% of the variance in financial performance. This is intuitively understandable. In order to improve the financial performance, the PHLIs need to provide quality services to their students, which can be achieved if both the academic and non-academic staffs constantly improve themselves. Since the education industry is highly competitive, continuous support and opportunities for learning are apparently made available to the staffs by the respective leaders of Malaysia's private colleges. Nowadays, the demand for advance knowledge arises as driven by changes in the workplace brought about by globalization and ICT. Thus such demand, change and challenging nature of ones job inspires the creation of continuous learning opportunities to the institutional members (Marsick & Watkins, 1999). Moreover, it is strongly believed that lifelong learning is a norm in higher learning institutions. Indeed, scholars have consistently found that continuous learning significantly contribute to financial performance (Hernandez, 2000, McHargue, 2000; Selden, 1998).

The dimension embedded systems also shows a very strong relationship with financial performance at ( $\beta = .638$ ,  $r^2 = .407$ ), representing 41 percent of the variance in financial performance. Embedded systems were constructed based on the use of two-way communication, accessibility of information, up-to-date database of employee skills, and availability of systems to measure performance gaps. Embedded systems allude to the systems that are needed for knowledge management where it is concerned with acquisition, development and storage of individuals' knowledge and making the information available and accessible for everyone. Moreover the management of knowledge becomes necessary for any learning institution in sustaining and maintaining competitive advantage. Jones, Herschel and Moesel (2003) also point out that "capturing valuable information and having the ability to effectively use and share it can help an organization maintain a sustainable competitive advantage" (p.54). "As information is an appropriate vehicle for representing, storing and distributing knowledge, information and communication technologies (ICT) play an important role in developing many knowledge management

applications” (Owen, 1999, p.7). Perhaps, the existing systems to capture and share learning in the institutions can be technologically advanced or other way round. In other words, it is not indispensable to have high level of information management technology to share learning; nevertheless technology generally becomes a tool for an institution to capture and share learning among their members in fast and easy mode. In fact, the learning that occurs in the organization can be shared through informal and formal gathering, bulletin boards, regular meetings and so forth. It is interesting to note that the finding of this study is also consistent with the work of Hernandez (2000), McHargue (1999), and Selden (1998). These studies together with the current findings signify that availability and accessibility of information across the organization for the purpose of making a good decision will lead to a positive financial performance (Selden, 1998).

Of the seven learning organization dimensions, inquiry and dialogue indicator exhibited a weak relationship with financial performance ( $\beta=.413$ ,  $r^2=.171$ ). About 17 percent of the variance in financial performance was explained by inquiry and dialogue. However, the relationships between the variables are significant. The items used to develop this dimension are practice of giving open and honest feedback across the institution, do individuals take into account the viewpoint of others, level of freedom to question superiors, and existence of a trust culture among employees in Malaysia’s private colleges. The weak relationship between the two variables could possibly be due to the institutions’ culture where the practice of openness is poor and very little time is spent on building trust and questioning each other. Perhaps, the nature of job in private colleges requires that institutional members pay more attention in providing quality service and maintain a good relationship with their stakeholders, especially students, have limited the interaction among the members in the institution itself. Again, this finding is consistent with the work of Hernandez (2000), McHargue (1999) and Selden (1998) in three different contexts. The final output of these three studies confirmed that inquiry and dialogue represented the least variance in financial performance.

Research Question #2 asked to what extent can select institutional characteristics independently explain observed variances in Watkins and Marsick’s seven dimensions of the learning organization. Out of forty-two possible relationships, only nineteen significant relationships were obtained. Thirteen of the coefficients were significant at  $p=.01$  or better and the others were significant at  $p<.05$  level. All the seven dimensions of the learning organization were significantly related with one of the institutional characteristics, level of institutional commitment to institutional/professional service. All the learning organization dimensions except embedded systems were significantly related with age of the institution. On the other hand, all the dimensions except provide leadership were significantly related with institutional level of commitment to effective teaching and learning. Other institutional characteristics, namely, number of full time employees, level of institutional commitment to research productivity, and level of institutional commitment to community service do not show significant relationships with any of the seven learning organization dimensions.

Age of the institution, level of institutional commitment to effective teaching and learning, and level of institutional commitment to institutional or professional service were significantly related to continuous learning, and team learning dimensions. As in the research question #1, continuous learning showed the second strongest relationship with financial performance. It is obvious in the case of private higher education institutions in Malaysia that maturity or the tenure of an institution strongly influences the presents of continuous learning opportunities as well as team learning. In other words, the institution that operates for a long period of time tends to provide more learning opportunity for its members and supports team learning as well. Perhaps, as an institution stays longer in the industry, it may gain higher market share or financially they may be stable. This further strengthens their ability to provide learning opportunities across their institution. Additionally, as the institution grows from year to year, their members experience new things or being receiving constant challenges from the environment, which require more collaboration and team learning to face the environment challenges tactfully and successfully.

Undeniably, the institutional level of commitment towards effective teaching and learning, and institutional/professional service also has positively created pathways for the development of continuous learning opportunities. In order to achieve these goals organizational members need to grow professionally which needs professional development programs and activities. The findings of this study show that embedded systems were significantly related with institutional level of commitment to effective teaching and learning, and institutional or professional service. These two commitments may perhaps encourage Malaysia’s private colleges to investment

more in technology to facilitate the dissemination of valuable resource to all of their members. Information technology is vital in the sense of building the knowledge capacity of the institutions. Through this knowledge, both the academic and non-academic members of the institutions will be able to provide quality and excellence service to their customers especially students. The quality services of an institution are probably the main factor that attracts students to enroll in any programs offered by the respective institutions. Thus, these institutions will perform financially better than others in due course of uniqueness of their academic and non-academic programs as well as their superiority services.

Leadership was significantly related with age of the institution and level of institutional commitment to institutional/professional service. This indicates that along with the institutional growth, leaders of the private colleges have gained reasonable experiences on different types of management practices and thus they might put more efforts in providing learning opportunities for their valuable members. Indeed, the leaders themselves might have given priority for their own personal development and growth, which is very important to lead an educational institution. The level of institutional commitment to institutional/professional service also had a strong influence on providing leadership. Education industry is being very competitive recently and as a result quality institutional or professional services become a mandate to sustain competitive advantage. Hence, charismatic leaders realize that knowledge of their members is one form of their capital, which can be accelerated through continuous learning efforts and supported by systems to capture and share learning within the institution.

On the whole, among all the relationships between the seven learning organization dimensions and institutional characteristics, institutional level of commitment to effective teaching and learning had the strongest influence on inquiry and dialogue ( $\beta = .506$ ,  $r^2 = .256$ ). In the educational institutions, open communication and positive dialogue is important to challenge one's mental model. Indeed, Watkins and Marsick (1993) have stressed that the inquiry "is a dialogue in which people mutually explore ideas, questions, and potential actions. It takes place through talk...talk reflects the way individuals think and is a key to learning through interaction with another" (p.73, see also Hernandez, p.122). Certainly, knowledge is critical to success in this information age, whereby members of the Malaysia's private colleges seem to be highly recognizing the importance of open communication even though the culture of openness in Malaysia perhaps still at the infant stage.

Research question #3 asked to what extent could selected institutional characteristics independently explain observed variances in perceived financial performance improvement measure. Three of the regression coefficients were significant at  $p < .01$  level. The institutional characteristics that showed significant relationships with the perceived financial were age of the institution, institutional level of commitment to effective teaching and learning, and institutional level of commitment to institutional/professional service. Despite the fact that these institutional characteristics explain only a small percentage of the variance in the perceived financial performance, all the characteristics were statistically significant. Age of the institution, level of institutional commitment to effective teaching and learning, and commitment to institutional/professional service explained three percent, six percent and ten percent of the variances respectively in financial performance.

Based on the research question #2 and #3, level of institutional commitment to effective teaching and learning, and commitment to institutional/professional service had a more frequent and stronger impact on both learning organization dimensions and perceived financial performance improvement measure of Malaysia's private colleges selected for this study. The significance of the institutional characteristics in this study of Malaysia's PHLIs is that construction of precise goals inspires the respective institutions to develop a learning culture. In short, the development of a learning culture and performance of PHEIs in Malaysia are superior when these institutions inculcate specific goals that become one of the motivating factors for future progression. The age of an institute probably reflects their maturity and stability and thus it was believed to be influencing the development of a learning culture among Malaysia's private colleges. This is further alleged to improve financial performance among these institutions, which is crucial in maintaining competitive advantage in this globalized educational environment.

Research question #4 asked to what extent Watkins and Marsick's dimensions of the learning organization and selected institutional characteristics are able to jointly explain the observed variances in perceived changes in financial performance of private colleges in Malaysia. Exploratory multiple regression analysis was used to answer this research question. All the independent variables, seven learning organization dimensions exhibiting significant predictive power for each of the dependent variables, perceived financial performance were tested to produce a

“best” model that maximized the perceived financial performance improvement measure. All the dimensions of the learning organization together with three institutional characteristics: age of the institution, level of institutional commitment to effective teaching and learning, and level of institutional commitment to institutional/professional service were put into a single simultaneous multiple regression as independent variables and financial performance as the dependent variable. The SPSS procedure for least squares regression, ANOVA and stepwise method was run.

The financial performance model (see Figure 2) revealed that fifty eight percent of the variance in financial performance could be attributed to the joint effect of continuous learning provide, leadership and embedded systems. On the other hand, these three learning organization dimensions were individually predicted by three of the institutional characteristics: age of the institution, level of institutional commitment to effective teaching and learning, and institutional/professional service. The institutional level of commitment to institutional/professional service is the only variable impacting provide leadership ( $r^2 = .143$ ), continuous learning ( $r^2 = .112$ ) and embedded systems ( $r^2 = .144$ ). Additionally, level of institutional commitment to effective teaching and learning related to continuous learning ( $r^2 = .134$ ). Age of the institution only related to continuous learning ( $r^2 = .032$ ). The findings supports the idea in the learning organization literature that an institution which provides ongoing learning opportunities, have leaders who recognizes the importance of learning, and appropriate systems are in place to capture and share learning across the institution are more likely get better in their financial performance. The financial performance improvement is a sign of more effective use of financial resources, greater productivity per employee, effective use of time to promote the institution to obtain greater market share, and fast feedback to customer complaints. In brief, the findings of this study confirm that the learning organization dimensions do influence financial performance of the selected private colleges.

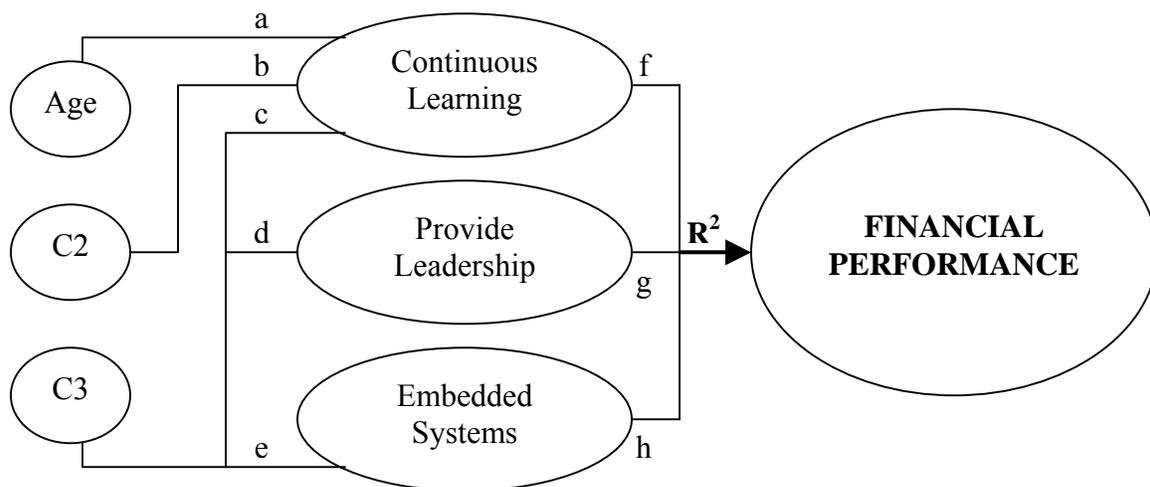


FIG. 2: FINAL MODEL FOR FINANCIAL PERFORMANCE

**Note:** Age = Age of the institute  
 C2 = level of institutional commitment to effective teaching and learning  
 C3 = level of institutional commitment to institutional/professional service

**R<sup>2</sup> = .584**

a = [  $\beta = .180$ ;  $r^2 = .032$ ;  $p = .005$  ]

b = [  $\beta = .366$ ;  $r^2 = .134$ ;  $p = .0001$  ]

c = [  $\beta = .334$ ;  $r^2 = .112$ ;  $p = .0001$  ]

d = [  $\beta = .378$ ;  $r^2 = .143$ ;  $p = .0001$  ]

e = [  $\beta = .379$ ;  $r^2 = .144$ ;  $p = .0001$  ]

f = [  $\beta = .374$ ;  $p = .0001$  ]

g = [  $\beta = .344$ ;  $p = .0001$  ]

h = [  $\beta = .187$ ;  $p = .005$  ]

## **Validation of the Financial Performance Model**

All the residuals plots (normal probability plot of regression standardized residuals; scatterplot of studentized deleted residuals versus standardized predicted values; and scatterplot standardized predicted values versus observed values) have provided a visual basis for checking the violations of the multiple regression assumptions. The residual plots supported that the financial performance model fit the data quite well or in other words, the model was appropriate for the data collected for this study since the residuals follow a normal distribution as well as other assumptions for a regression analysis were met. Moreover, it was confirmed that the multicollinearity problem do not occurs between all of the predictor variables in this study. The variance inflation factor (VIF) values were used to assess collinearity or multicollinearity among the independent variables. All the VIF values were below the commonly accepted threshold value of 10.00 (Cooper & Schindler, 2003; Neter, Wasserman, & Kutner, 1990, SPSS Applications Guide, 1999).

## **Conclusion**

The empirical study explored the relationships between seven learning organization dimensions and perceived financial performance improvement within private colleges in Malaysia. The findings provides some empirical evidence that suggests PHLIs to some extent do follow learning organization practices and it is proved to be successfully improve the financial performance. Therefore, other higher learning institutions in quest of becoming competitive are strongly encourage adopting the learning organization dimensions. By focusing on leadership for learning, embedded systems and continuous learning which were the strong predictors of financial performance, PHLIs are possibly can achieve a position of eminence in the globalize education industry. Additionally, institutional characteristics that jointly affect the institutions' financial performance were age of the institution, institutional level of commitment to institutional/professional service, and institutional level of commitment to effective teaching and learning. Thus, PHLIs need to consider this factor as they move forward in building and nurturing a learning culture. On the whole, the findings of this study have brought forward the importance of developing a learning culture and its impact on financial performance with the intention to provide comprehensive empirical information for HRD scholars and practitioners.

## **References**

Contact the Author for a list of references

# Managerial and Economic Knowledge and the Scientific Method

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## Abstract

The aim of the paper is to find a framework for understanding if scientific methods can be applied in managerial and economic studies. The purpose is to answer to the following question: has economic and managerial rationality a sure scientific nature? The paper proceeds as follow. Firstly, the main aim of the work and research questions are presented, secondly, we illustrate what we mean for scientific method and we pay particular attention to relationships between scientific method and managerial and economic studies. Thirdly we propose our interpretative framework, analysing in details its components.

## Introduction

There is a large number of scholars nowadays carrying out research in the fields of Management and Economics, so that the question posed by this paper about the relationship between these research areas and the scientific method is not idle: can all this work be labelled as being part of the scientific method?

The researchers working in the described areas could think that there is no such a problem, but observations from reality, in our opinion, tell something different. In order to support the thesis that a problem exists, we are putting forward the following consideration: successful scientific models in a given area, make it possible for scholars to foresee the development of phenomena.

An example of predictability in astronomic sciences is the work of American NASA and European ESA, which seven years ago sent toward Saturn the spacecraft CASSINI HUYGENS in gravitational orbit. During the flight it behaved exactly as forecast and after a small correction, also part of the scientific plan, it entered into SATURN'S orbit, sending back magnificent images of the heavenly bodies. The probe HUYGENS even landed on TITAN, one of SATURN'S moons, by means of a complex manoeuvre, sending back pictures of the satellite's surface. A successful scientific and research achievement!

On the other hand, an example of low predictability in managerial sciences: some days ago, it was reported that CARREFOUR, the largest European retailer, is in trouble and was compelled to sell some of its overseas operations, notably in Mexico and Japan. But one or two years ago we were reading quite opposite declarations: CARREFOUR was in a winning mood, priding its global results and planning to conquer the Japanese, the Chinese and other markets. In that occasion, some experts were even doubtful if these ventures would be so easy as CARREFOUR managers were proclaiming, given the known difficulty for non-Japanese companies to obtain winning results in that market, but the representatives of the company were confident about their strategies against all odds. How could high-level professionals become wrong in so short a time?

A second example from a more general economic area: when establishing Maastricht criteria, German experts and politicians pressed EU members to introduce fiscal deficit limits at the renowned 3 per cent limit. The measure was meant to keep monitoring member countries with a history of disordered finances. What happened afterwards in the reality was quite opposite to forecast: Germany was the first member to break the rules initially proposed by itself.

Of course, there are explanations for both cases. But ex-post. Science would ask for ex-ante explanations. But in Management and Economics this is very rare, if not practically non-existent. These cases, and many others, repeat the initial question: has economic and managerial rationality a sure scientific nature?

The problem of what is scientific and what is not, is not new and is discussed in Epistemology<sup>1</sup>, the discipline trying to understand the problematic of scientific thought.

We will quote only some epistemologists, those who, in our opinion, gave relevant contributions to the problem.

At first we would like to mention Carnap<sup>ii</sup>, who introduced the idea that science is built through mental models, which are proved in practice, until they fit to the reality. Models are simplified descriptions and explanations of the phenomena observed. In philosophical terms this kind of thinking activity is called induction, as we induce from what we observe in the reality, to thought models, i.e., theory.

Another relevant epistemologist, was Popper<sup>iii</sup>, who considered the evolving of models in time, concluding, we guess, under the impression of the substitution of Newtonian cosmology with Einstein's Relativity, that mankind, if at a certain historical moment relies on a certain explanatory model. There is another one looming in the future, better fitted than the first one to explain the phenomenon. In Popper's view, science cannot find a final model in a given area of knowledge, as evolution of thought is always working. What science can do, is to recognize previous models as false. Therefore, science is based on the principle of falsification, and not on that of finding the truth.

Kuhn<sup>iv</sup> noted that many scientific models are not mere hypotheses, which could tomorrow be easily changed with a new idea. Areas like physics, chemistry, biology and medicine can today rely on firm knowledge. Also the relationship between Newton and Einstein cosmologies is not that of one theory substituting the other. They are both true in particular circumstances. Even if we cannot say that we have reached the point of total and exhausting truth, Kuhn's message could be expressed as follows: the advancement to complete truth is through steps, called paradigms; the final result of the advancement is always wanting, but the steps are firm enough so that our understanding of the phenomena can rely on them. From the point of view of the step where we stay now, we can forecast improved actions in the future, as this happened already in the past.

But are the thoughts of the past all wrong? The present-day people tend to think that ancient men and cultures were mostly very primitive. But today's knowledge is built on the previous one. This aspect was pointed out by Lévy-Strauss<sup>v</sup>, who got the merit of showing how also primitives have been rational, if we take into consideration their very circumstances. Many areas of knowledge and many technologies derived from them and were invented by mankind in the past and are nowadays substantially still valid.

Consider the case of the invention of fire. We must use a scenario as we don't have a report.

Once upon a time, not long after the exit from Eden, a tribe of primitive men was squatting down in a cave located on the African highlands, close to the Great Rift Valley, the great rip in the earth crust, extending from the mountains of Lebanon, through the Red Sea, to East Africa.

Suddenly the walls of the cave start to tremble: the mountain is in the reality a volcano, turning into an eruptive state. On the slopes appears a river of molten lava, flowing down the valley.

The members of the tribe run away, trying to put as much distance as possible between them and the natural phenomenon, but a young and more intelligent member stopped after a while turning his head, in order to observe the phenomenon in all its terrorizing magnificence. Once the curiosity prevailed on mere terror he started to sense also the positive effect of the warmth which the lucent lava flowing spread into the environment. As he went closer, the sense of benefit won over the cold of the night of the highland. After a longer period, lava flowing stopped, starting to cover with a solid crust, like a healing wound.

The young man observed the glowing substance inside the cracks. After a while, he started to play with a wooden stick, pushing it inside and observing what would happen. A lively flame appeared. The fire emitted warmth, and he came to the idea of transporting the flame to a bush and to a pile of woods. In the end he would transport the woods to his native cave, and when he saw that the flame tended to die out, he would appoint a clan member as fireguard.

We shortened a story which probably required centuries to be realized, but it is not totally an arbitrary invention: still at Roman times priestesses existed, called vestals, who had the task of guarding fire, as part of an antique tradition.

The scenario shows the modalities of how rationality operated in the pre-scientific man, already able to make inventions and develop simple technologies. His rationality, in contrast to pure instinct typical of the animals, showed up in overcoming the atavistic fear, in stopping in order to observe natural phenomena, in exhibiting curiosity and finally in playing and experimenting, by means of primitive instruments based on senses, in first place

eyes and hands. After having assimilated the basic elements of the phenomenon he tried to transform them in a most convenient way for him and for his kin. This is already the invention of a technology, having the scope of using the phenomenon whenever necessary, independently of the natural happening. Other phases were developed later, when people learnt how to ignite fire without a volcano at hand.

Many centuries and even thousands of years passed, after the described scenario, but man didn't stop, trying to understand the phenomenon. For instance, old philosophers, like Tales, divided nature in basic categories, one of which was fire.

More precise observations of the phenomenon have been carried out when man came closer to modern times. Alchemists, for instance, classified substances into two categories: flammables or combustibles and not combustibles. This work was done with the goal of finding a method in order to transform vile metals in gold. They were trying to burn metals, thinking that the procedure would bring them closer to their objective. They observed that flammability depended also on temperature: some metals burnt, but you had to get the system very warm. As a consequence the categorization in flammables and not flammables was good, but not perfect: some substances were easily flammable, others were less and some were not flammable at all. Something was missing in explaining exactly the phenomenon of burning.

Anyhow, taking into account their observations, the alchemists proposed for the burning phenomenon the explicative model<sup>vi</sup> shown by the following equation, where we put inputs on the left and outputs on the right side of the equal sign:

Combustible substance + Ignition Temperature = Phlogiston + Ash + Warmth (Model 1)

Phlogiston was the hypothetical fire substance. Model 1 appears as rational if observations are based on normal body senses, in first place view and touch: during combustion a kind of fluid is seen lifting over the flame and an emission of warmth is sensed. At the end of the process, and when they are cold, the ashes can be touched. The normal ashes of combustible substances weigh only a fraction of the input combustible. Therefore, their weight, in a first approach, can be considered as negligible. Many combustible substances, for instance oil, do even not produce ashes.

If the combustion experiment is carried out, using metals as combustible substances, a higher ignition temperature is needed, but model 1 looks as confirmed, if the ashes are not weighted.

Lavoisier<sup>vii</sup> came to the idea to weigh the inputs and outputs of the metal burning<sup>viii</sup>. The result of the experiment was astonishing: the output ashes weighted more than the input metals. It was something unexpected and not observable by means of view and touch. After some deductions, he proposed model 2:

Ignition Temperature + Combustible Substance + Oxygen = Oxidation Substance (Ashes) + Warmth (model 2)

In order to prove that model 1 is false in all possible circumstances it is necessary to develop more complex experiments, as the mere weighting of solid ashes. In the combustion of wood or coal, for instance, gasses are produced and one must be able to estimate the weight of them.

At last model 1 was found false in all possible circumstances, whereas model 2 showed up as the first step of the paradigm of a new science, chemistry, substituting previous alchemy. Alchemy is nowadays totally cancelled from modern awareness, as it is considered intrinsically false.

## **The Scientific Rationality: An Interpretative Framework**

Taking into account the precedent considerations, scenarios and examples, we guess that the stages of scientific rationality could be described as a sequence of the ego activities, observing the objects outside themselves, going through the following stages:

1. Simple observation of facts and/or objects and their description in words. The objects and facts present diverse facets. The observer tries to find a conducting thread in this multiplicity. Veda philosophy affirms that "man looks for the one in the multitude". In that phrase there is some truth, but the scientific method, compared to philosophy cannot neglect details. Therefore a step forward is made by:

2. The creation of categories: in order to produce categories, the observed multitude has to be divided into groups or sets. If we want that categories make sense, they must be built up in such a way that every observed object or fact fits into one and one only category. Categorization is the better done, the more this principle is maintained.

It is interesting to underline that categorization has a double function: on one hand categories separate, making it possible to distinguish the sub-phenomena, on the other hand, they are oriented toward unity. This last aspect is due to the fact that the number of categories must be inferior than the number of observed objects, as one category must be able to collect various objects of observation. It is like ordering disparate objects in a reduced number of drawers. The result is a numerical reduction of the observed phenomenology, equivalent to the advancement in the direction of unity. Often, such kind of categorization is not easy.

The easiest way to carry out categorization is to divide the observed objects into two parts: a partial set and the rest. Such kind of categorization is always possible. The two sets can be subdivided at new at a second level, than at a third one, at a fourth one, and so on. Every thinking mind is doing that in all possible cases.

Categorization can be done in many different ways, depending on the object as also on the modelling strategy.

3. Once the above exposed conditions are met, the categories can be named. A name is a semantic element, symbolically representing the category. That way we substitute the multitude put into the category, by a unique symbol, expressed in a language. It is a new step toward unity, as the categorical multitude is now represented by the one symbol. Already Plato and Aristotle found out the abstract character of names. Let's consider the word "tree": in the rein of nature, there is no concrete tree, but only the precise oak in front of our window, or the pine in the middle of John's garden. As a matter of fact "tree" is the name of a category of objects observed in the realm of nature, outside our ego. By denominating categories we introduce symbolism in the rationality procedure, where now the deductive aspect starts to prevail over the inductive one.

There are several languages at disposal of man's rationality: vocal, pictorial, pictographic, alphabetic, graphic, algebraic, matrix, computer, photographic, physic. Every language chosen presents advantages and disadvantages, as far as explication is concerned. Therefore, as a general rule, using a combination (mix) of various languages, a better explicative result is obtained.

Moreover, it is necessary to point out that languages are less and more complex. In order to distinguish this aspect we might use the quantity of effort needed to learn a given language. The vocal speech is learnt after birth, the alphabetic at school, the graphic and algebraic languages also at school, but at a higher level, as it is asked for an added effort, and it must be based also on previous knowledge<sup>ix</sup>.

4. After having produced categories and their names, we can try the subsequent passage of the scientific method, which is given by quantitative measurement. In order to obtain this result we must introduce one or more scales, creating an association between the grades of the scales and the categories, obtained in the previous stage. If we are able to obtain that type of result, the categories don't have only names, but also numbers and they may be more precisely classified.

Example: the heavenly bodies are subdivided into the categories/names of stars, planets and satellites. Table 1 brings the categories and some measurements of them. Table 1 is a categorization in matrix, word and numeric language.

TABLE 1: CATEGORIZATION OF PART OF THE PLANETARY SYSTEM AND SOME DATA OF IT

Categories	Stars	Planets	Satellites	Average distance from centre (10 <sup>3</sup> km)
Names	Sun			0
		Mercury		57,91
		Venus		108,2
		Earth		149,6
			Moon	0,3844
		Mars		227,94
			Phobos	0,938
			Deimos	0,124

Measures are important: if matrixes would be only visual or qualitative, we had the determination of categories, but it wouldn't be possible to establish a more precise relationships between them. In order to realize measurements, we often need sophisticated instruments, like telescopes, microscopes and others. The measure instruments are the ones that make it possible to overcome the limits of our body-senses: with the telescope we see further than only our eyes alone would permit.

5. The next step is the construction of a model, i.e., the trial to connect everything in a system.

Suppose we determined n categories of a given phenomenon, named:  $x_1, x_2, \dots, x_i, \dots, x_n$  and suppose also that the  $x_i$  varies in time, than the model can be expressed as:

$$Y = f(x_1, x_2, \dots, x_i, \dots, x_n) = f(\underline{x}) \quad (3)$$

and the task of the researcher is to find the form of f.

From a systemic view-point (3) is connecting the output Y to inputs  $x_i$ , which in this case are the categories. Equations (1) and (2) regarding burning tried to obtain exactly this kind of result.

To find the form of f, it is not an easy task, and in order to get it we must do it by means of comparing the model to the reality. We can show this aspect by the system in graphical language, Fig. 1.

Fig. 1

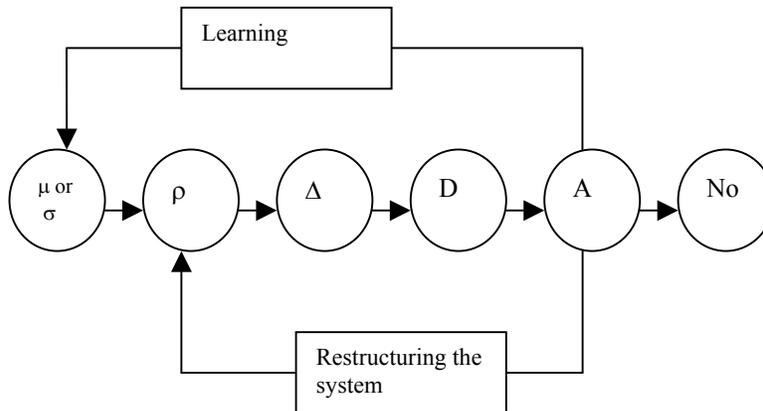


Fig. 1 is the general graphical representation of the system of control and checking used also in managerial areas of knowledge. It represents the sequence of activities through which management carries out its tasks<sup>x</sup>:

- a. The first stage is given by the construction of the model which was described previously through the points from 1 to 5. The model is here named most generally with the symbol  $\mu$  or  $\sigma$ :  $\mu$  for model and  $\sigma$  for standard, as it is often possible to express a model with few or even only one number, which is than conveniently called a standard<sup>xi</sup>.
- b. The model is compared to the reality named here  $\rho$ .
- c. The difference  $\Delta = \mu$  or  $\sigma - \rho$  is evaluated and
- d. A decision D is taken in order to:
- e. A, act correctively
- f. No, don't act correctively, if the difference  $\Delta$  is not significant or
- g. Act on the reality if the difference is significant and the reality can be corrected. This is a stage of management: in management we try mostly to correct the reality by means of organization.
- h. To act on the model if we think that it is unrealistic. Changing the model means learning. Learning can be defined as change of existing models to new ones, better fitted to reality. It is also the first stage of innovation, as by changing models we find out new models, which can aftermath be used to make new products and/or services, i.e.: innovation.

The interesting point to show from the point of view of Epistemology is the following one: the sequence of activities from a to h (a  $\rightarrow$  h) is the same either we are managing a company, or we carry out a scientific research. Thus, this is the very reason why, it is so difficult to disentangle the two activities, management and research, getting a clear separation of the two. The difference is not in the theory but in the practice. What we do in practice research activities is that we concentrate in transforming mental models until they fit to reality. This is better achieved if we carry out a laboratory experiment. The term laboratory means that we keep reality  $\rho$  in so called controlled, or fixed condition and then we change or move the model  $\mu$  or  $\sigma$ , until it fits to the reality  $\rho$ . But this consideration is not to take in a totally strict meaning. Also if we carry out experiments we must, for instance carry out some organization. Hence, also in this case we have some managerial operations. But the core activity is research, transforming models in order to fit them to reality.

When the activity is typically managerial, than the follow-ups f and g are the more frequent: we don't intervene if the forecast model is right, or we intervene in the reality of the company and/or the environment around the company, if we must reach the goals of the model. This would mean that we still believe that the forecasting model is true, but we must do some organizational work to meet it. These are typical aspects of managerial activity.

We see here the subtle difference existing between research and managerial activities. It is only a difference in dosage between the activities of building models, checking them with reality and correcting models and/or reality. If we tilt on one side it starts to be research, if we tilt on the other it is management.

Another problem is connected with the quality of the models at disposal. We exposed previously the procedure of building models by means of the sequence from 1 to 5 (1  $\rightarrow$  5). The question is: is it possible to carry out this procedure in the same way in all areas of knowledge? The procedure in itself is totally general, we know it from long experience. We think that we can affirm that human rationality goes always through the described steps, but it could be that in certain areas of knowledge the topic treated makes it difficult to apply. Again this is a practical and not a theoretical problem.

## **The Scientific Rationality in Managerial and Economic Knowledge**

In Marketing, a typical area of Managerial knowledge, categories are called Marketing variables and they display as shown in Fig. 2.

Theoretically it would be possible to write an equation like (3), where  $x_i$  are the input variables and  $y$  the result of a marketing action; but in practice this is not feasible because  $x_i$  are synthetic variables, which can be divided in sub-variables, these again in sub-variables and so on. It is always possible to make categories, as categorization is the very work, as previously explained, to put different objects in one set, but this is not yet a

guarantee, that the sets are apt to model building. Possibly, another categorization would be needed to that end, but at the moment we have only this one at hand. There is also possibly another danger: the objects and/or facts which we put in one category, could also fit in other categories, and for this reason the categories do not make a clear cut of the reality observed, but they overlap.

At this stage of the investigation we can hence conclude that the observed phenomenon is complex and that the division in sub-phenomena is difficult and scarcely productive for the aim of a unifying model.

**FIG. 2.: CATEGORIES OF MARKETING VARIABLES**

Marketing variables	Active or business variables	Product	
		Price	
		Place	
		Promotion	
	Passive or environmental variables	Micro	Suppliers
			Middlemen
			Competitors
			Company's culture
			Customers
		Macro	Demo-geography
			Economy-income
			Politics-law
			Culture
			Politics-Law
			Technology
			Naturale environment

We have similar situations in many areas of economic topics. The consequence of it is that the models used do eventually not comply with Popper's falsification principle.

Let's take, for instance, International Economics<sup>xii</sup> a topic advancing through several steps denominated by the Authors of the various models: Smith, Ricardo, Heckscher-Ohlin, Samuelson, the model of the Economies of Scale, the Model of the International Life-Cycle and the Model of the Multinational company. None of those explanatory models can be declared as false. Even the first historical models, like that of Adam Smith, may be useful in order to carry out an explanation of the reality in the area.

We have another example from more general Economics: until approximately a decade ago, one of the most important Authors in economics, either theoretical, or practical, was considered Keynes<sup>xiii</sup>. As a mathematician working in Economics he developed a simple model explaining the economy of a nation, which was attractive for scholars, for its clarity, and for politicians, for its simplicity in application. Keynes advanced the opinion that by

means of the so called “deficit spending” it would be possible to foster the development of a given nation. His message was widely received by politicians as it gave them an easy receipt for the solution of many troubles.

But the experience gathered finally was not so good as the theory proposed: where deficit spending was done consistently, the outcome obtained was not so much development but the so called stag-flation, economic stagnation together with inflation. The forecast of what would happen was wrong again. As a consequence of it, scholars turned from Keynes’ ideas. But, and this is typical for economic models, not totally! For instance, as we already said, Maastricht criteria still permit the EU member countries, a limited deficit spending of 3% per year.

Therefore, we can say that Keynes’ model was not falsified in Popper’s sense, but it is also not totally true. It looks to be true in a small dose, like some drugs: they can be used, but only to some extent.

We think that it is important to understand the real nature of the models in the vast area going from Economics to Social Sciences and their relevance for application. Otherwise it could happen like with Marxism: some decades ago it was considered as a scientific truth regarding human relations and society, but when it became evident that reality didn’t behave like foreseen by the model, i.e.:  $\mu \neq \rho$ , terrible actions followed in order to “correct”  $\rho$ . It is interesting that also Hitler<sup>xiv</sup>, thought that Nazism was based on a scientific truth, and that also the consequences of that social and political model application have been terrible. The caution is therefore more than justified, even more as the public is longing for a scientific truth in economic, social and other similar areas of knowledge, close to the every day interests of mankind.

So then, what now? Shall we abdicate from our impetus to understand everything and to subdue everything to the scientific mind? Shall we return to a kind of pre-scientific culture? We don’t think so, this would be again an extremism. It is too much connected with human being the trial of understanding the world which surrounds us, and to lift the veils between us and the external phenomena.

## Conclusions

At this point, it is only necessary to admit that there are vast areas of knowledge and interest, where the scientific method in its canonical form is difficult to apply and doesn’t produce the results eagerly looked for by mankind.

Sometimes it could be even ridiculous to try to force them out, as, for instance, it happens in Economics, by means of a trend of complex mathematical application. This could be justified, in our eyes, only if it produces results. But the algorithms could produce results only if the checking between models and reality is carried out, as expressed by means of the system of Fig. 1. Mathematics is a form of deduction, that doesn’t create inductive results by itself. But nowadays, entire economic books are devoted to economic phenomena described by mathematical algorithms. Out of them almost nothing could be factually applied in day-to-day management of business and economic systems, so that eventually two worlds developed: on one hand more and more abstract mathematics and on the other the use of trivial heuristics. Until now, for instance, nobody was able to prove that a -3% fiscal deficit for a given country is better than -2 or -4, or 0, or +1. -3% is based just on the proverbial “rule of the thumb”.

The impression goes that to push ahead research and findings in these complex fields of knowledge, a more precise determination of the scientific methods would be needed, in order to establish how to proceed to be more productive. But this point opens a new chapter, which we leave for future contributions.

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## End Notes

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- <sup>i</sup> The technical name for the theory of knowledge is Epistemology, which is derived from the Greek word  $\pi\alpha\iota\sigma\iota\sigma\tau\iota\kappa\eta$  (episteme), meaning “knowledge,” and the suffix ology, meaning “science of.” In its original sense the word “science” meant “an organized body of knowledge.” Today, theory of knowledge is an organized body of knowledge about knowledge.
- <sup>ii</sup> Rudolf Carnap, *Der logische Aufbau der Welt*, Berlin, 1928; it.transl.: *La costruzione logica del mondo*, Fabbri, Milano, 1966.
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- <sup>iv</sup> Thomas Samuel Kuhn, *The Structure of Scientific Revolutions*, Chicago, 1962; It. Transl.: *La struttura delle rivoluzioni scientifiche*, Einaudi, Torino, 1969.
- <sup>v</sup> Claude Lévi-Strauss, *La pensée sauvage*, Plon, Paris, 1962
- <sup>vi</sup> As a matter of fact, they used only the language of words. We tried to translate their words in an algebraic equation.
- <sup>vii</sup> Antoine Lavoisier, <http://scienceworld.wolfram.com/biography/Lavoisier.html>
- <sup>viii</sup> The technical term is calcination.
- <sup>ix</sup> For instance, the algebraic language, requires the previous knowledge of the written language.
- <sup>x</sup> Jean-Paul Thommen, and Ann-Kristin Achleitner, *Allgemeine Betriebswirtschaftslehre* (2001), Gabler, Wiesbaden; Alessio Lokar, *Manuale di Tecnologia dei Cicli Produttivi* (1996), Cedam, Padova
- <sup>xi</sup> In English the word “standard” appears first with reference to the “Battle of the Standard” in 1138. A contemporary writer, Richard of Hexham, relating the story of the battle, describes the “standard” there used as a mast of a ship, with flags at the top, mounted in the middle of a machine which was brought into the field. He quotes a Latin couplet written on the occasion, which says that the standard was so called from “stand”, because “it was there that valour took its stand to conquer or die”. Originally, the word “standard” meant the flag, pennant or other symbol, affixed to the top of a pole, and served as the rallying point for troops in battle. The soldiers in each unit were expected to recognize their own standard, so that they could reorient themselves from time to time in the heat of battle. The modern primary meaning evolved through symbolism: “a quality or measure which is established by authority, custom, or general consent”. A standard is a concrete example of an item or a specification against which all others may be measured.
- <sup>xii</sup> Paul R. Krugman, Maurice Obstfeld (1988), *International Economics*, HarperCollins College Publishers, New York, it. Transl.: *Ulrico Hoepli Editore*, Milano.
- <sup>xiii</sup> John Maynard Keynes, *The General Theory of Employment, Interest and Money* (1936), <http://cepa.newschool.edu/het/profiles/keynes.htm>
- <sup>xiv</sup> Michael Burleigh (2000), *Il Terzo Reich*, Milano: Rizzoli, p. 34.

# Managing Digital School in the New Paradigm Shift

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## Abstract

As the world goes online, so are many schools. Today, in order to complete globally schools should enter the new technology paradigm, which is to shifting the traditional school environment into an e-school environment. Furthermore, in the new millennium, schools face many challenges that are affected by the dynamics of information technology (IT). IT is the main source of competitive advantage that enables schools to embark on a global platform. Society is undergoing a fundamental transformation from the Industrial Age to the Information Age. All the people, organisations, societies and nations are affected, although not at the same pace or to the same degree. Those who realign their practices most effectively to Information Age standards will reap substantial benefits. This paper discussed the proposed e-school, the components and the IT infrastructure for e-school.

## Introduction

Throughout the history of the world people have characterized its existence by time periods or ages. Today we have moved into another age that is different from any other – The Information Age, a time when knowledge is power (Haag, Cummings, Dawkins, 1998).

The Information Age has brought greater challenges especially in school environment throughout the world especially in the new millennium. The fundamental challenge is to provide an excellent service in terms of administration, management and teaching. As a result, every effort is taken to ensure that every students and offices are equipped with the state of the art technology. These are to ensure students are able to fulfil the national human resources requirement and simultaneously to provide knowledge and basic analytical skill to every individual. This paper proposed information technology architecture as an effort in turning traditional schools into digital school also known as e-school and the components that contributes to its success in the future

## Background

To be able to deliver world-class education and school management system, school can adopt the information technologies to create an information technology infrastructure capable of coordinating the activities of entire school and even entire education sector. This new IT infrastructure provides a broad platform for learning and administration and the emerging digital school. This new IT infrastructure is based on powerful networks and Internet technology. The new IT infrastructure links desktop workstations, network computers, LAN and server computers in an education enterprise network so that information can flow freely throughout different parts of the school. The education enterprise network may also be linked to kiosks, PDA, digital cell phones and PCs and other mobile computing devices as well as to the Internet using public infrastructures. Student, teacher and administrators can be links to the education portal through this new IT infrastructure.

Connectivity is a measure of how well computers and computers based devices can communicate with one another and share information in a meaningful way without human intervention. It is essential for the hardware; software and network components work together to transfer information seamlessly with the school environment.

## Proposed E-School Model

The information technology paradigm has changed from legacy computer systems to network open computer systems. Network is considered a computer nowadays. An e-school should operate at high performance level. For school to achieve its e-school vision it has to be supported and committed by all levels of people. To begin its conquest, school must be fully networked with gigabit technology with asynchronous transfer mode (ATM) for its wide area network. The server systems should be running on Linux or NT Operating System. Hence, to conquer and conquer the paradigm shift and be able to go electronically we proposed the e-school model that consists of people, technology and business process as illustrated in Fig. 1.

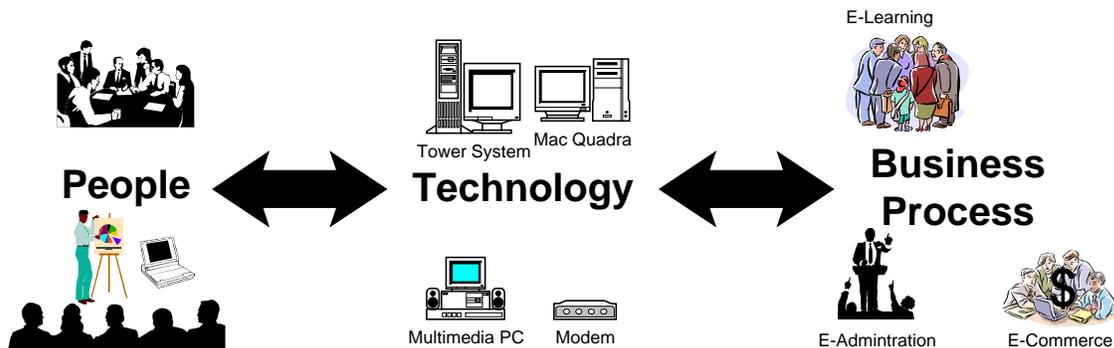


FIG. 1: PROPOSED E-SCHOOL CONCEPTUAL MODEL

### People

The elements of people consist from all levels based on their field of expertise and responsibilities. In addition, they need to understand all aspects of the organisation and reach certain level of competency to be known as Knowledge Workers. Knowledge Workers are people who spend most of their time communicating and collaborating in teams and workgroups. They also create, use and distribute information (O'Brien, 1999). People in the context of e-school can be categorised into three different groups:

- Administrator
- Teacher
- Student

### Technology

For school to meet its vision, it needs to have a high performance info-structure – Information Super Highway as illustrated in Fig. 2. Thus, school should strategically planned to build the following info-structure (Isa *et al*, 2004):

- Super Highway (Campus Backbone: Gigabit Technology) that is fully connected.
- One-to-One Workstations or PCs.
- Latest application software: Internet, Intranet, Groupware, Workflow

This info-structure should be implemented with high performance. In order, to keep up with the latest technology, school must regularly evaluate all the indicators above so that they are align with the school development.

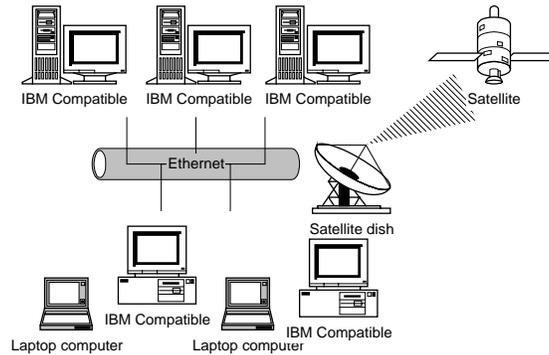


FIG. 2: CONCEPTUAL HIGH PERFORMANCE INFO-STRUCTURE

### Business Process

Information technology role is to make major improvements in the organisational business processes. Investment in information technology which school can adopt can help make its operational processes substantially more efficient and its administrative processes become more effective. School will be able to operate its business process by specific functional areas such as Financial Management and Student Affairs management as an example. Some examples of business processes or activities involved are illustrated in Table 1.

TABLE 1: EXAMPLE OF BUSINESS PROCESS ACTIVITIES FOR E-SCHOOL.

1.	E-mail/Memos/Bulletin Board	13	Vendor information
2.	Directories	14	Multimedia Learning System
3.	Organization charts	15	Inventory information
4.	Newsletters and Publications	16	Quality statistics
5.	News feeds	17	System user documentation
6.	Personnel manuals	18	Network Management
7.	Benefits information	19	Asset Management
8.	Training	20	Groupware and Workflow Applications
9.	Newsgroups	21	Fax mail, Fax on Demand
10.	Digital Cash	22	Executive Information System
11.	Financial reports	23	One-card System (Smart card)
12.	Customer information	24	Direct Electronic Learning & Teaching

### E-Administration

Empower trained staff and business alliances with computers and telecommunications technologies to make governance stronger (Toregas, 1999). To lead school into the new paradigm shift, e-Administration is initiative to reinvent itself. E-Administration is hoped to improve both how the school operates internally as well as how it delivers service to the public. It seeks to improve the convenience, accessibility and quality of interactions with school environment. This will also improve information flows and processes within the school administration to improve speed and quality policy development, coordination and enforcement among departments. Hence the *vision* of e-Administration is a vision for people, business processes and technology working together for the benefit of school and its entire citizen. The e-Administration applications are divided into three parts:

- Enterprise-Wide Information Management System
- Enterprise-Wide Communication System
- Enterprise-Wide Collaboration Management System

### E-Learning

The E-Learning is the creation, delivery, and management of learning and training via CD-ROM, school intranet and Internet. It allows organizations to take full advantage of their existing desktop/portable PC's and their computer network technologies. E-learning can be delivered directly to learner's computers, when and where it is convenient, and teachers can easily track learner progress (Click2Learn.com, 2000). The essentials of e-learning are of some possible reasons (Working Group Secretariat, 1998):

- To overcome limited physical resources.
- To assisting in changing trends of education to cater for more inquiry based learning styles.
- For easier access to subject experts around the world.

Turning to e-learning will lead to school be able to meet such goals:

- To broaden their marketplace by delivering knowledge to the students rather than forcing the students to find knowledge.
- To extend the presence of teachers to larger audiences beyond traditional classroom.
- To deliver new products-provide lifelong learning curriculum to individuals.
- To reduce the cost and improve the quality of teaching – provide tools for students to access to the best teachers.
- To provide better management environment for the teachers – from creation of courses until completing a course of study.

### E-Commerce

Before 1994, e-commerce as illustrated in Fig. 3 did not exist. Today, after a few years more that 30 million consumers in American alone are expected to spend about US65 billion purchasing products and services on the Internet (Dykema, 2000). It is important to realise that the rapid growth and change that has occurred in the first five to six years of e-commerce represents just the beginning. It appears likely that e-commerce will eventually impact nearly all commerce or that all commerce will be e-commerce by the year 2050 (Laudon and Traver 2001).

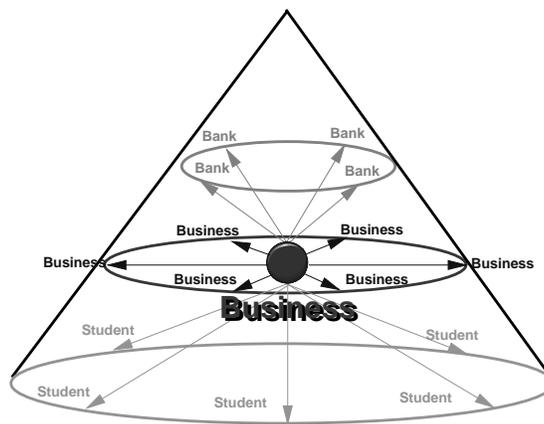


FIG. 3: E-COMMERCE CONCEPTUAL MODEL

School should take this brave step because of a huge return of investment (ROI). Based on reports and initiative experiences reported. ROI promise of earnings over 100%. Moreover, this effort is in conjunction with the Malaysian government's initiative in its mega project the Multimedia Superhighway Corridor (MSC) (MAMPU, 1997a, 1997b and 1997c).

## Information Technology Infrastructure for Digital School

To be ready and able to conquer education challenges for the new millennium, firm can use the information technologies to create an information technology infrastructure capable of coordinating the activities of entire school and even education sectors. The new IT infrastructure will provide a broad platform for e-school in term of learning, teaching and managing. This new IT infrastructure is based on powerful networks and Internet technology as illustrated in Fig. 4. The new IT infrastructure links desktop workstations, network computers, LAN and server computers in an enterprise network so that information can flow freely throughout different parts of the school and available links. The enterprise network may also be linked to kiosks, point of sale terminals, PDA, digital cell phones and PCs; and other mobile computing devices as well as to the internet using public infrastructures. Students, parents and others may be links to the school through this new IT infrastructure.

Connectivity is a measure of how well computers and computers based devices can communicate with one another and share information in a meaningful way without human intervention. It is essential for the hardware; software and network components work together to transfer information seamlessly from one part of the organisation to another. Strategic steps that has to be taken in implementing this e-school (Salleh *et al*, 2000, Othman *et al*, 2000, Basri *et al* 2001, Basri *at el* 2002, Isa *et al*, 2004)

- Plan and Implement the *Info-structure*
- Plan and Implement the development of *Knowledge Workers*
- Plan, Identify and Implement the *Streamlining Business Processes*

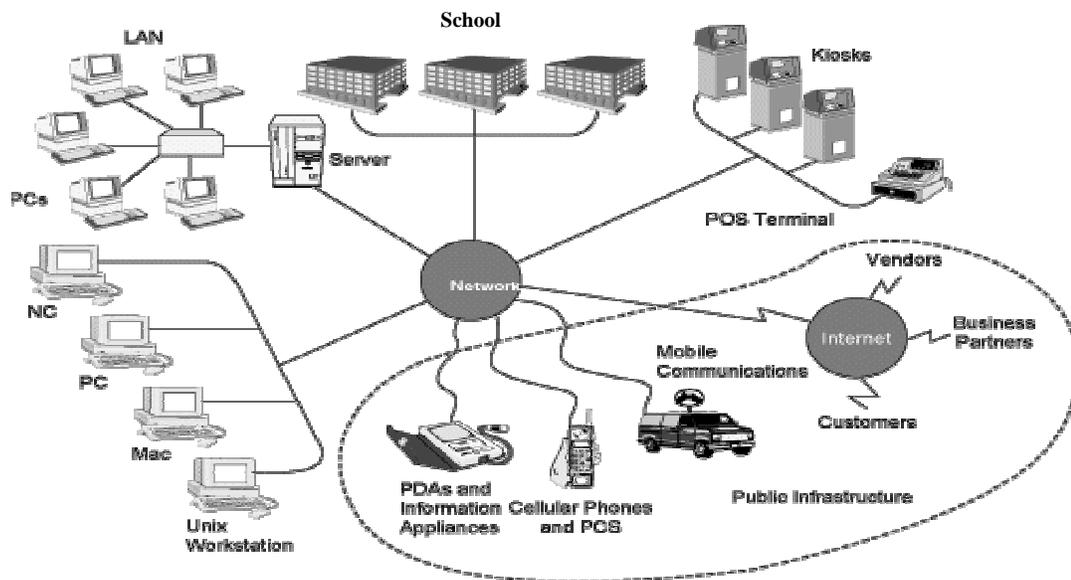


FIG. 4: THE NEW INFORMATION TECHNOLOGY INFRASTRUCTURE FOR DIGITAL FIRM (SENN, 2004)

## Conclusion

The introduction of new technology is considered to be one of the primary causes or sources of change within education system in the effort to increase the quality of communication both within and outside of the school. However, this sometime would require a substantial amount of investment, where risk is perceived as a solution to achieve competitiveness - a way to the new information technology era.

The management of technology is one of the most important aspects in managing e-school. It is not only the need to deal with the technical issues of the technology but the responsibilities lie beyond that. Issues like education structure and culture; and individual conflicts and resistance to change process must be address adequately. In addition, to be successful e-school must fully utilise its three main components, which consist of administrative, technology and business process.

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# Offering On-line Education in the South Pacific through ICT: A Case Study of an IP based Network used to Offer a Postgraduate Computer Science Course

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## Abstract

The University of the South Pacific (USP) offered a post-graduate course CS493 'Advanced Information Technology for Small Business with Open Sources' using the IP based video conferencing mode in partnership with National University of Electro-Communications (UEC) in Japan. The technology used to create the learning environment was the IP based network link up using the satellite SuperBird-C, Earth receiving station, a satellite router, polycom digital camera linked to 20 computers in a local area network (LAN). This was made possible with the assistance of Japan International Cooperation Agency (JICA) office in Suva. This mode of offering computing science courses has added a new dimension to the mode of teaching and learning in the Mathematics and Computing Department (MACS) of USP. Efforts are being made to embrace the newer IP based technology that the digital domain offers. This mode provides student and staff with the opportunity to be part and parcel of the larger global community. Thus by using this technology we are able to participate in the sharing of knowledge and expertise with others whilst still being located at USP. The utilization of IP based network really opens up newer horizons and is a bonus for a regional university like USP which serves 12 other regional countries of the South Pacific. This also contributes significantly in terms of quality of medium to the distance teaching and learning (DTL) modes of courses. JICA has contributed significantly to make this project a reality here at MACS department of USP. This provides us a window to the current up to date technology options available today in the developed industrialized countries. This Internet based linkup is an excellent option for countries in situations where Internet speeds are low due to low bandwidth between countries. However whatever the technology utilized, this should not overshadow the teaching and learning component. A number of issues are raised by this trial project are discussed in this paper. This paper approaches the trial from this perspective; viz. to evaluate the benefit to already professionally trained post graduate students of access in real time to high level expertise from another country. Questions arise about the effectiveness of the technology, language differences, cultural influences on the interaction, learning outcomes and cost/benefit ratio.

## Introduction

Within a context of rapid technological change and shifting market conditions, the education system is challenged with providing increased educational opportunities using the latest technology. Many educational institutions are answering this challenge by developing distance education programs through the use of Information Communication Technology (ICT). These types of programs can provide adults with a second chance at a tertiary education and reach out to those disadvantaged by limited time, distance or physical disability. Distance education, through ICT, also opens a window to the utilization of contemporary expertise from higher education institutions worldwide. Much recent emphasis has been on on-line learning, with higher education institutions re-working their courses to suit on-line delivery. This has led to discussions in the literature on the time required by academics to design such courses (for example, Bender et al. 2004); the need for learning support for on-line learning (for example, Tait & Mills, 2003); and the theoretical base for on-line learning (for example, Jung 2001).

The University of the South Pacific (USP) is also moving into on-line provision and satellite based distance education through its USPnet program. USP is a regional institution owned by 12 member countries, (all are small island states), and is charged with delivering education to a widely dispersed group of students.

The Distance Teaching and Learning (DTL) mode is greatly encouraged in the Mathematics and Computing Science Department at USP and at present there are some Computer Science (CS) courses offered in USP's Distance and Flexible Learning (DFL) mode:

In the Video Broadcast (VBC) mode:  
CS112 Data Structures and Algorithms  
CS122 Information Systems II  
In the print and on-line mode  
CS222 Database Management Systems

More computing science courses are planned to join this list in semesters to come.

USP faces a special challenge in relation to the development of its post-graduate program: the desire to enhance research undertaken by university staff and to develop the research profile without postgraduate students having to go to overseas institutions to complete their specialized studies. This can contribute to reduced cost by strengthening in-house capabilities and give growth to the development of a culture of research in the University. In the case of Computer Science, the problem is exacerbated by the rapid growth of technology and the relative isolation of the University from the sources of that growth.

This paper approaches the trial from this perspective; viz. to evaluate the benefit to already professionally trained post graduate students of access in real time to high level expertise from another country. Questions arise about the effectiveness of the technology, language differences, cultural influences on the interaction, learning outcomes and cost/benefit ratio.

So, through the assistance of JICA (Japanese International Cooperation Agency) a trial program was set up in 2004 to deliver one post graduate course in Computing Science to students in the Laucala campus in Fiji from Japan through satellite linkup. This paper reports on the outcome of this trial. This project raises all the issues of staff time, technological efficiency, student support needs and effective models of delivery through ICT, which are common for courses using the new technologies. But it also returns to an idea which sits at the very beginning of the conceptions of the potential benefits of ICT: the use of real time access to expertise at the highest level. Such an idea has seen benefits in other fields such as the medical field with access to specialists at distances remote for treatment.

The experience gained in this program maybe very useful for other courses or even other institutions looking to up-grade their teaching input through access to key experts in other locations. After all this was one of the hopes of access to ICT.

### **1. The Organizational Setup**

For the first semester of 2004, Mathematic and Computing Science Department (MACS) of USP offered a post-graduate course CS493, called “Advanced Information Technology for small Business with Open Sources” in the Distance Teaching and Learning (DTL) mode. This was done using a satellite link up with University of Electro Communication (UEC) in Tokyo, Japan. This was made possible with the collaboration JICA (Japan International Cooperation Agency), Suva office, NICT (National Institute of Information and Communication Technology), ARIB (Association of Radio Industries and Business) and CRL (Communication Research Laboratory).

This trial project required significant role sharing amongst the organizations involved. This course was conducted as a USP normal post-graduate course, using USP’s administrative procedures. USP also provided the basic equipment such as computer labs and a tutor.

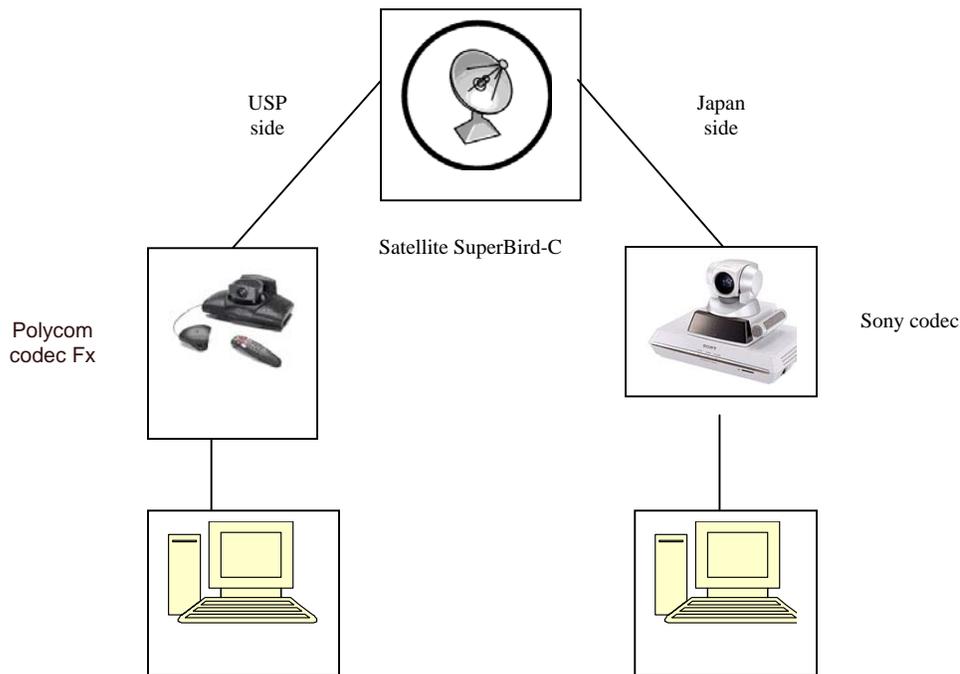
UEC provided the lecturer, course content material and made arrangements for the network connections.

ARIB and CRL provided network engineers and fee for satellite connection.

The JICA office at USP facilitated the technical setup, logistics and finance of equipment of this project.

### **2. The Technical Setup**

The central campus of USP, which is the main platform for its delivery of distance programs, is situated in Fiji. Fiji faces a monopoly situation in its telecommunications which has resulted in very high costs for bandwidth, despite the close proximity of the Southern Cross cable. This has created significant problems for distance education which relies on speed through good access to bandwidth. This trial has sought to work with IP based network delivery using a satellite linkup as a consequence. However with the introduction of ARNET at USP, the situation will surely evolve exponentially.



The lecture is projected onto the screen and the voice through the speakers whilst the student sits in front of a computer linked to the server in Japan

The response from the students is viewed on a plasma TV. (audio and visual)

THE FIGURE ABOVE SHOWS THE LOGICAL SETUP OF THE “LECTURE ROOM” TO CARRY OUT THE LECTURE

A brief understanding of the technology utilized:-

**IP based network:** Modern digital technology allows different sectors, e.g. telecom, data, radio and television to be merged together. This occurrence is drastically changing the way in which both people and devices communicate. At the center of this process, forming the backbone and making convergence possible, are IP-based networks. To start with, circuit switching requires that a circuit be set up end to end before communication begins. Packet switching does not require any advance setup. Setting up a path in advance also opens up the possibility of reserving bandwidth in advance. If bandwidth is reserved, then when packet arrives, it can be sent out immediately over the reserved bandwidth. With packet switching, no bandwidth is reserved, so packets may have to wait for their turn to be forwarded. If a circuit has been reserved for a particular user and there is no traffic to send, the bandwidth of the circuit is wasted.

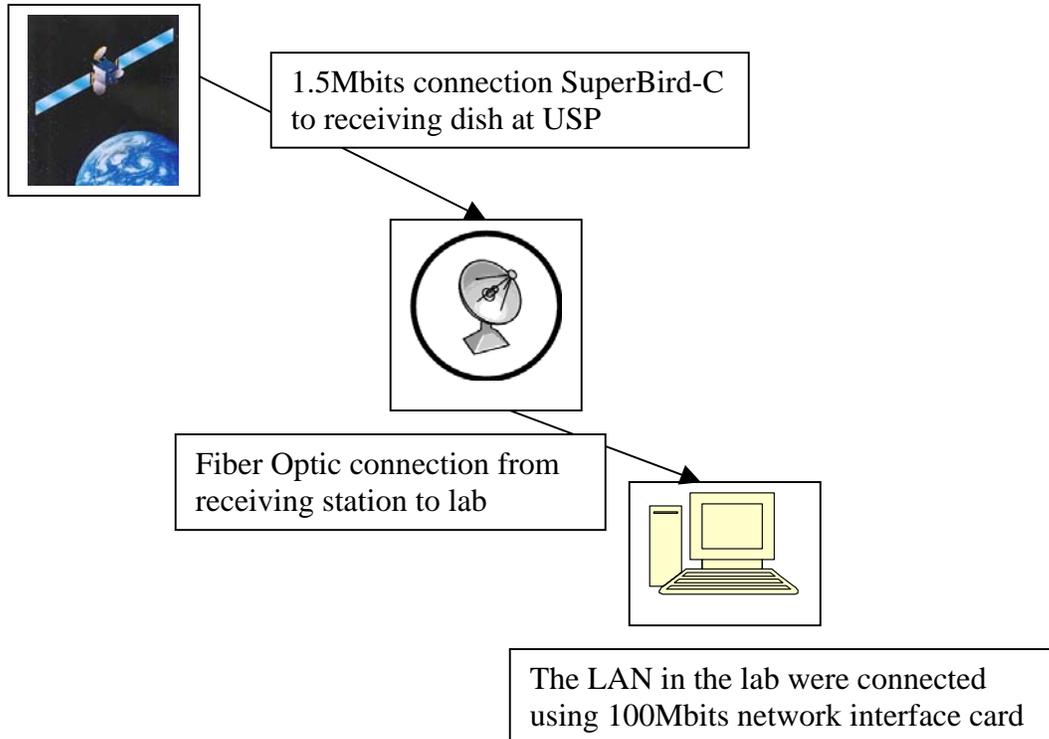
To understand this better lets briefly say something about the communication technique.

*The circuit-switched network* is used in traditional telephone systems. It creates a closed circuit between the two nodes in the network to establish a connection. Once a connection is established, the communication is dedicated between the two nodes.

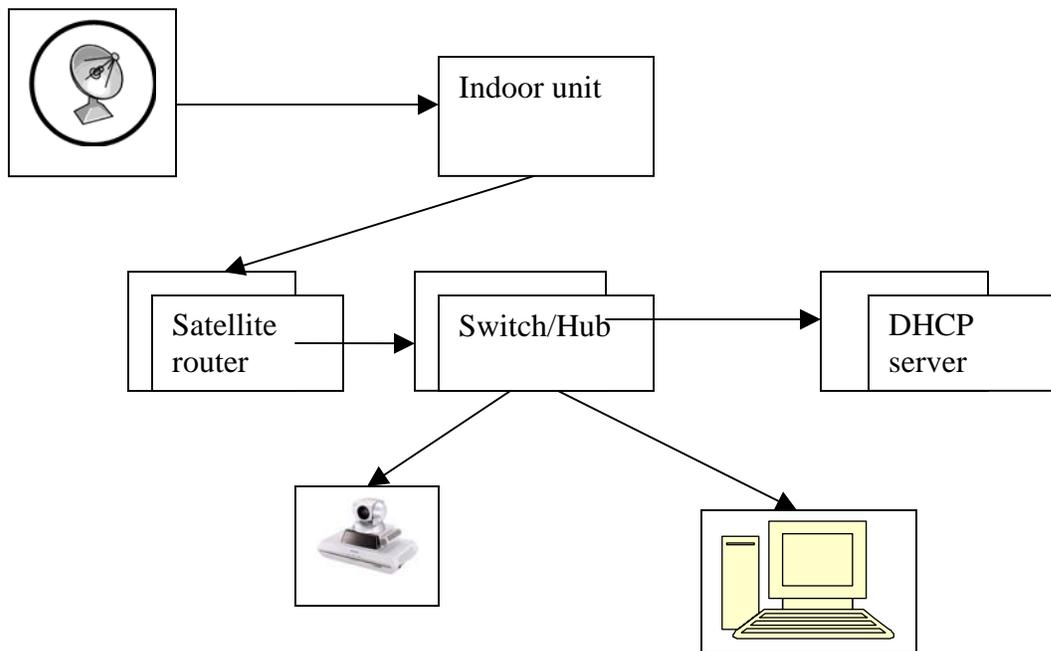
*The packet-switched network:* Used in IP-based networks. Messages are first divided into packets containing a Destination Address (DA). Then each packet is sent over the network with every intermediate node and router in the network determining where the packet goes next. A packet does not need to be routed over the same links as previous related packets. Packet based switching uses the capacity more efficiently and minimizes the risk of possible problems, such as disconnection. Packet switching is more tolerant than circuit switching.

The technology utilized at USP's end for this project included the following components:

- Satellite SuperBird-C
- Satellite receiving dish
- Satellite router
- Switches / hubs
- Pologom digital camera
- DHCP server
- Local Area Network (LAN) of 20 computers



THE FIGURE ABOVE SHOWS A SUMMARY OF THE CONNECTION SPEED UTILIZED AT USP'S END



THE FIGURE ABOVE SHOWS THE CONFIGURATION LAYOUT OF COMPONENTS UTILIZED IN THIS PROJECT

### 3. The Learning Environment Set Up

The creation of a learning environment could be broken down into the following:

- Class room: The linkup setup described above formed the base for the distance digital class room. The lecturer was projected onto the wide screen. Students had audio access to the remote lecturer via the two central and movable microphones placed in the lab. The students with the computer in front of them used the Telnet service to log into the remote server located in Tokyo, Japan.
- Distance lecturer: The lecturer based in Tokyo was projected onto a multimedia screen at the prescribed times of the fortnightly lecture. It took a few minutes to establish all link up arrangements to be operational.
- Local Students: A group of 21 students were enrolled for this offering of the course. They came from several member countries that make up the University of the South Pacific (USP).
- Support facilities: The class was supported through the use of a local tutor, who was responsible for liaison between the lecturer in Tokyo and the students at the USP Suva campus, as well as highlighting the technical needs of the students.

### 4. The Educational Framework

The course content aimed to provide students with concepts and applications used in the modern information technology (IT) environment for business. The class focused on open computer network systems, taking into consideration computer security, and commercial laws and intellectual property. Students had the opportunity to do hands-on exercises, building dynamic homepages and open source database PHP and PostgreSQL.

### 5. Methodology

Participant observation was used to gather information on the progress of the course, with the author acting as tutor for its duration. Records were kept weekly covering the issues of likes and dislikes about the course, effectiveness of

tutoring support and potential information. 14 students answered the one page questionnaire as part of USP's requirement for all courses at the end of each semester.

## **6. Discussion**

*Learning issues:* Students from the region are still coming to terms with independent or self learning. The education system in the South Pacific generally does not encourage the independent learner (Kazim, 2000). Students have been almost exclusively inducted into a model of education in which information is transmitted through face to face delivery. Despite encouragement in various forms, students are still not readily doing their assigned weekly readings let alone the suggested complementary readings on their own. At the same time, most students across the region are culturally oriented to collaborative learning in which close personal interaction is important (Dakuidreketi, 1995). Tutorials are an essential element in the support which needs to be provided (also experienced in other developing countries: Corry & Lelliot, 2003). But tutorials alone will not guarantee success. Consequently this trial provided the opportunity to examine both issues in the technical delivery of the course and its success as a learning exercise in the Pacific context. It became clear that the students appreciated the real time face to face contact with the lecturer in Japan, although at a distance. Students were well aware of the trial nature of the course and some Hawthorne affect can be predicted. Nonetheless, compared to distance mode teaching where contact with lecturers and tutors is more at arms length, this experience was met with universally positive comments from the students. At the same time, the students also were very positive in terms of the tutorial backup. The tutor was engaged with the students in the reception and progress of the course with further immediate face to face contact. The outcome was very encouraging with 18 out of 21 students sitting the exam and passing. The trial was provided in distance mode, but with strong face to face structure. As such it has worked very well as a learning experience.

Distance mode students who do get access at USP to audio tutorials through USPnet, sometimes complain of the difficulties of understanding arising from accents of staff with which they are not familiar. In this case, there was a lecturer from Japan. The issue of an accent was not a major factor as the distance lecturer in Japan had teaching experience also in Australia.

*Technological aspects:* The availability of Internet facilities is the pride and treasure of any institution but the question that needs to be addressed is how much of these facilities actually trickles down to the student's level. Network security is a predominant concern of most network administrators. However from the educator's view point as many services as possible should be made available to the students to better utilize the whole range of possibilities of the Internet; services such as FTP, telnet, etc. to name a few. Network administrators are typically very influential in planning an institution's distance education program; they should not lose contact or forget to relinquish control to educators or lecturers somewhere along the line.

Efforts should also be made to reduce idle time for students. Students were observed to lose interest rapidly when set up of link between Tokyo and Suva campus took time.

### *Education aspects:*

Without a local tutor, the teaching model would be too reliant on student's willingness to engage in independent learning. In the traditional mode, students and lecturers alike have become accustomed to the face to face environment. In the DTL mode the students are left on their own to supplement their knowledge. If students have not yet been able to appreciate the importance of reading or browsing the internet for relevant documents on their own this can be a major hurdle to the good advancement of discussions in a distance class setup. The library has to accommodate the change by adapting to providing the latest up to date literature. Access to professional scientific databases is to be encouraged. Several students observed in their questionnaire that library materials needed to be more up to date. The use of a local tutor was critical in the success of the course as it enabled pressure to be put on the students to read the materials.

The most significant issue to emerge is that the technological innovation has not replaced the importance of face to face support at the receiving end. This is now a commonplace of distance education discussion (Tait & Mills, 2003). But in this case, firstly the specific educational needs of students in the region need to be understood and integrated into the program. This means a level of personal teaching support and interaction which encourages collaboration and one to one interaction. In other words, the course taught using the distance mode still needed a committed tutor at the user end, and as such represented no saving in terms of staff commitment from within the department. However if this was to be the only criterion under which the trial was assessed, something important

would be lost. The expertise and sense of access to current information provided by the program are very important. Students were aware of the value of this access. This value is especially important in the postgraduate program at USP. Access to current expertise world wide opens the possibility for USP's postgraduate students to feel that their physical remoteness is not disadvantaging them in their studies.

*Organizational aspects:*

The two institutions operated under different academic calendars thus some adjustments were necessary, such as the availability of the lecturer. Some adjustments was required for student grading due dates because of different academic calendars for each university. JICA office with its counterparts will be offering a postgraduate computing science course again in the first semester of 2005.

Library services for distance learners are more labor intensive than campus services. Campus students use the library in a self-service mode, but providing documents to off-campus students requires library staff for retrieval and dissemination.

**7. Cost/Benefit**

The administrative aspect was taken care of by the USP regulations and overall cost shared by all concerned.

Academic staff cost: The distance lecturer was provided by UEC and the local tutor by USP

Technical staff cost: The technical staff from JICA office helped prepare the computer labs before each class setup.

.Lets us presume the academic staff and technical staff cost are covered. The remaining costs are:

Satellite cost: Satellite connection rate was FDJ 1000\$ per hour. 3 hour classes were conducted over 9 weeks for a total of \$27,000.

Student fees: The normal USP postgraduate fee of \$715 was charged to the students, for a total of \$15051.

As a consequence the cost of project was \$11985. Given the benefits to the students, it can be suggested that the cost/benefit comes out just about even. With the introduction of AARNET this cost will be significantly reduced as a result the project will become viable.

**Conclusion**

Using DTL mode, postgraduate education in the South Pacific can be enhanced by making use of the contemporary expertise from various locations. As a result more students can benefit in our Pacific region and not only a privileged few or sponsored individuals who can afford the high cost of overseas education can gain access to the better institutions. DTL mode can also provide a window for the academic staff as to what is happening in the international arena in a realistic manner. This can also go towards stimulating the departments aim in developing its research profile.

This was an exciting pilot project that did provide the chance to better explore and adapt this new technology in our teaching methodology. The new experience did stimulate the students to understand the IP based network technology as well as giving them first hand experience.

This case study demonstrates that this process has a strong potential, but it must take into account the educational framework which produces learning outcomes for students in terms of the educational support they need.

It is not clear that the teaching model has been the most appropriate. It may have been a temptation taken too quickly to give over the teaching of whole course to provision via the link. A more carefully thought out teaching model, may have retained the high value of access to front line expertise, which is so needed in the region, but used it as a supplement to a course which was primarily taught locally. This alternative model has the potential to keep the key aspect of access to expertise, while cutting back on cost and organizational difficulties. In terms of cost/benefit the introduction of AARNET to the region will the project will become viable in terms of cost.

However, more debate needs to be undertaken regarding this mode as DTL link up with renowned institution maybe the a good way forward but then the regional intuitions will be rendered insignificant or just a satellite campus.

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## End Notes

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## Online vs. Two-Way Interactive Video: Attitudes of Students

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### Abstract

Distance education involves different types of technology and at many different levels (Kearsley, 2000). Online education employs primarily the computer, Internet, and Web technologies. Two-way interactive video, also called videoconferencing, by taking another aspect of the telecommunication technology, has also been standing out as an effective distance learning technology, particularly in higher education. Online education and two-way interactive video are both in the realm of information technology and have received extensive studies as to their functions and effectiveness in higher education in recent years. However, minimum research has been found on students' attitudes toward these two technologies used in the classroom. No research has been found on students' attitudes toward the two technologies compared across the two platforms, e.g., the attitude difference toward the two technologies between students taking online courses and students taking two-way interactive video courses. This study is to investigate on students' attitudes toward technologies used in online and two-way interactive video courses.

### Introduction

Distance education is not a new phenomenon in American education (Brenner, 1997). It started about a hundred years ago in the form of correspondent courses. As information technology advances and we have entered the new millennium, distance education has varied into many forms, with the Internet courses and two-way interactive video (videoconferencing) courses taking the lead, especially in higher education. This type of education does not require the student and teacher to be time- and space- bound, and it is the fastest-growing instructional pattern in the world (Cartwright, 1994, & Hall, 1990).

Ever since it became available in higher educational institutions in the late 1980's Internet has been adopted as an instructional tool. Educators found that the Internet could be used to effectively communicate information and instructions, and education does not have to be bound to the four walls and a physical location (DeNigris & Witchel, 2000). University of Phoenix established their online campus in 1988, probably the first online campus ever to be. Later on, as local area network, campus network, and wide area network became commonplace in higher institutions, many colleges and universities began to offer online and two-way interactive video education, such as Purdue University, University of Memphis, and Stanford University (DeNigris & Witchel, 2000). In recent years, an increasing number of higher institutions begin to offer different levels of programs on the Internet and the Web, ranging from undergraduate to doctoral programs.

“Education has changed from an orderly world of disciplines and courses to an infosphere in which communication technologies are increasingly important” (Molnar, 1997, p.68). Online education involves different types of technology and at many different levels (Kearsley, 2000). It may include, in addition to computers, multimedia and large-scale public networks such as the Internet or small local area networks in a particular building or room. Also it may take place at many different levels. For instance, it can be at the level of higher education, K-12 schools, corporations, government agencies, homes, etc. Some of the online education programs are offered in a formal course curriculum, while others may be short training courses, or in other formats.

Meanwhile, two-way interactive video, also called videoconferencing, by taking another aspect of the telecommunication technology, has also been standing out as a popular distance learning technology, particularly in higher education. Wilkinson and Sherman (1991) found in the early 1990s that most frequently used form in distance learning programs in higher learning institutions was video-based technology. Unlike its predecessor TV course, which is only one-way delivery, two-way interactive video takes the advantage of digital video/audio compression technology to send and receive video and audio concurrently, making possible the education interactive between the instructor and the students and even between the students in different locations. Today's two-way interactive video courses are mostly offered at university, college, and community college levels. It is primarily because the technology involves high-cost equipment for the infrastructure and knowledgeable technicians to operate. However, some school districts also have two-way interactive video environment, providing distance education to middle schools and high schools. In this study, only online and two-way interactive video students in higher education were selected as subjects.

Technically speaking, online courses in higher education today involve basically computers, e-mail, Internet chatting (discussion room), World Wide Web and sometimes streaming audio/video technologies. Students do not have to be online at the same time, except when required by the instructor for specific discussions, thus an asynchronous education so is it termed. The e-mail system disseminates messages between instructors and students or between students. Syllabi, assignments, instructor's notes, and the like, are accessed via the instructor's Web page. In some institutions, such advanced Web tools as Blackboard or WebCT is used in the classroom. In two-way interactive video courses, a central classroom or site is usually equipped with both a camera for the instructor, and a camera for the students. Also there is a viewing monitor for the instructor or the student and another monitor for the remote site(s). There is also, mostly, the same equipment setting on the remote site(s) so that the central classroom can see and hear the remote site(s) the same as the remote site(s) can see and hear the central classroom. The instructor operates a control panel at the teacher's station. There is normally a computer, document presenter, and a microphone equipped with the teacher's station. On the student's side, microphones are present, but no computers are available in general.

One of the major issues in distance education, either online or two-way interactive video, is interaction. With new technology, today's students can have immediate access to information from any online resources, but if the information is only a non-interactive one way flow, it may be wondered what the difference is between the old correspondent distance education and today's distance education on information highway. Thus, interaction becomes one of the key issues for distance education to survive and thrive. This issue will, probably, last for a long time in the future. Today's information highway endorses students to demand instruction to include high level of interaction among students and between students and instructors. This demand for interactivity in the learning process has required not only a new focus on instructional design, but also new two-way interactive technologies to mediate the delivery process (Parker, 1999).

Online education and two-way videoconferencing are the two selected technologies for distance education because they provide instructors with the ability to vary both the method and the media. However, the functions and the teaching effectiveness of the two technologies are not equivalent. Online course is usually less time- and space-bound than two-way videoconference, whereas the two-way videoconference is more interactive than online course. Both online education and two-way interactive video distance education have received extensive studies as to their functions and effectiveness in higher education in these recent years. However, only a limited number of researches have studied students' preference of the type of distance education, or their attitudes toward each type of distance education technologies. No research has been found on students' cross-platform attitude toward the two technologies, e.g., the attitude difference toward the two technologies between students taking online courses and students taking two-way interactive video courses. Though both types of technology provide students with distance education, students' choice of certain technology determines the survival issue of certain type of distance education format. In order to better serve distance education students, we believe that it is necessary to conduct an investigation on students' attitudes toward technologies involved in the two formats of distance education courses. In this study, both online course students and two-way interactive video course students were asked the same questions about their attitudes toward the technologies involved in online and two-way interactive video courses to find out the difference in their attitudes toward the technologies between the two groups of students.

It is our hope that the results and findings from this research would: 1) help distance education instructors make better selection of the technologies for distance education; 2) help distance education instructors in their instructional design of distance courses; 3) empower the administrators of higher education institutions in their decision-making on distance education; 4) improve overall distance education programs; 5) enhance our knowledge about distance education. Additionally, the findings may provide valuable information for the technology industry, leading to new development in each of the particular technologies.

This research and its results can be a step-stone for further studies that we plan to conduct. The possible research topics for further studies may include: Is learning styles (such as field-dependent and field-independent) a significant factor that affect a student's attitude toward online and videoconference education? Do online and videoconference courses authorize students to question their ideas and beliefs, thereby, encouraging provocative and interactive construction of personal knowledge?

## Research Questions and Hypotheses

The research questions of this study are: Is there a significant difference between the attitude of students taking online courses and students taking two-way interactive video courses toward online education technology and two-way interactive video technology? Based on the above-mentioned question, the following null hypotheses were developed:

1.  $H_01$ : There is no significant difference between the attitude of students taking online courses and students taking two-way interactive video courses toward computers.
2.  $H_02$ : There is no significant difference between the attitude of students taking online courses and students taking two-way interactive video courses toward multimedia.
3.  $H_03$ : There is no significant difference between the attitude of students taking online courses and students taking two-way interactive video courses toward the Internet.
4.  $H_04$ : There is no significant difference between the attitude of students taking online courses and students taking two-way interactive video courses toward two-way interactive video.

## Methodology

### Subjects

Graduate students enrolled in online and two-way interactive video courses in the College of Business of a university were selected as sample subjects. Students enrolled in online courses at the College were recruited as the subject for online course. Students enrolled in two-way interactive video course at the College were recruited as the subject for two-way interactive video course. Among them some may have been cross-taking courses in both online and two-way interactive video courses. The sample was consisted of both male and female students.

Students in two-way interactive video course group was coded GROUP 1 in the data collection and data analysis. Students in the online course group was coded GROUP 2 in the data collection and data analysis.

### Instruments

A Semantic Differential measurement scale was used to measure students' attitudes toward the information technologies used for online and two-way interactive video courses. Semantic Differential technique was developed by Osgood, Suci, and Tannenbaum (Osgood, Suci, & Tannenbaum, 1967). They found that some of the clusters of adjectives with evaluative dimensions, such as *good* and *bad* or *valuable* and *worthless*, have the most significance for attitude measurement. According to Ary, Jacobs, & Razavieh (1990), the technique can measure the meaning of an object through the pattern of an individual's rating of that object on the bipolar adjective scales. Attitude scales are constructed by selecting a number of pairs of adjectives representing the evaluative dimension. The adjective pairs are presented along with seven response scale categories, which direct the respondent to select one of them to indicate the extent to which each adjective describes the object.

The questionnaire used in the survey for this research was an adoption of the questionnaire on Teachers' Attitude toward Information Technology developed by Knezek & Christensen (1998), with minor modifications by

the researchers to fit the purpose of this study. The questionnaire is consisted of four technology categories. They are: computer (coded C), multimedia (coded M), Internet (coded E), and two-way interactive video (coded TV). There are ten pairs of adjectives with evaluative dimensions that measure students' attitude toward the technology in each technology category. The ten pairs of adjectives in multimedia, online, and two-way interactive video categories have the same ten pairs of adjectives such as *important* and *unimportant*. The ones in the computer category are different with such pairs of adjectives as *unlikable* and *likable*. The points in the Semantic Differential scale are assigned on a 1-to-7 scale, with 7 representing the most positive response. The adjective pairs are listed in both directions in order to minimize a response set, that is, a tendency to favor certain positions in a list of options. In addition, a personal information inventory was developed to record subjects' classification and demographic information including gender, age, ethnicity, employment experiences and the experiences with computers.

The validity and reliability of the questionnaire were established by Knezek & Christensen (1998) in their research studies measuring teachers' attitude toward information technology.

The subjects of this study were distance education students. Most of them were not available to complete the survey on campus. Therefore, a Web page was developed to host the questionnaire and record the subjects' responses. Subjects were notified by the instructors in class or via the instructors' student e-mail lists.

#### Data Analysis

Attitude ratings of students who were taking online courses or two-way interactive video courses toward the use of technologies were compared by using Mann-Whitney *U*-Test. Mann-Whitney *U*-Test was selected is due to the difference between the populations. Mann-Whitney *U*-Test may be a more powerful tool for detecting differences between or among populations than the equivalent parametric test (Scheffler, 1988).

Data were analyzed in two ways. One way was to compare the average of overall ratings of each technology category, e.g., computer (C), multimedia (M), Internet (E), and two-way interactive video (TV). The other was to compare the attitude ratings within each individual technology category.

## Results

Table 1 and Table 2 (See the tables in Appendix) list the data analysis results of the overall average mean ranking of each technology category. The statistics in Tables 1 and 2 show that there is a statistically significant difference ( $p = 0.004$ ) between GROUP 1 (two-way interactive video students) and GROUP 2 (online students) in the overall mean ranking of C (computer) category at  $p = 0.05$  level. The  $p$ -value of 0.004 is well beyond the 0.05 level, allowing us to reject  $H_0I$ . GROUP 2 (average  $n_2 = 22$ ,  $m_2 = 30.20$ ) has a significant higher average mean ranking over GROUP 1 (average  $n_1 = 28$ ,  $m_1 = 20.23$ ). This result indicates that students of GROUP 2 have a more positive attitude toward computers than those of GROUP 1. In other words, online students regard computers as more *pleasant* and *natural* than two-way interactive students do.

No significant difference was found in the overall average rating comparisons between GROUP 1 and GROUP 2 in their attitude toward other technology categories, e.g., multimedia, Internet, and two-way interactive video. Possible attributes to the results of no significant difference in these categories will be discussed in Conclusion, Discussion, and Implications section.

Data analysis results of student attitude rating comparison within each individual category are listed in Tables 3 to 10. Statistics in Table 4 show that there is a significant difference ( $p = 0.016$ ) between GROUP 1 and GROUP 2 in C7 (*artificial* and *natural*) area. The  $p$ -value of 0.016 is less than the 0.05 level, which allows us to reject  $H_0I$  in the C7 area. The mean ranking difference indicates that students of GROUP 2 ( $n_2 = 23$ ,  $m_2 = 31.43$ ) consider computers as more *natural* to them than the students of GROUP 1 ( $n_1 = 28$ ,  $m_1 = 21.54$ ) do. C2 (*unhappy* and *happy*), C3 (*bad* and *good*), and C10 (*suffocating* and *fresh*) have a significance level of  $p = 0.052$ ,  $p = 0.053$ , and  $p = 0.054$ , respectively. These  $p$ -values are very close to the 0.05 level, posing almost no difference from 0.05. Assuming that the  $p$  level was set at 0.1, then all these ratings would show a significant difference. Thus, we think that there is still a significant difference between the two groups' ratings in C2 (GROUP 1:  $n_1 = 28$ ,  $m_1 = 22.52$ ; GROUP2:  $n_2 = 23$ ,  $m_2 = 30.24$ ), C3 (GROUP 1:  $n_1 = 28$ ,  $m_1 = 22.77$ ; GROUP 2:  $n_2 = 23$ ,  $m_2 = 29.93$ ), and C10 (GROUP 1:  $n_1 = 28$ ,  $m_1 = 22.11$ ; GROUP 2:  $n_2 = 22$ ,  $m_2 = 29.82$ ). These results suggest that online students regard

computers as *happier*, *better*, and  *fresher* than two-way interactive video students do. By a closer examination of Table 3 we found that the mean ranking scores of GROUP 2 in the rest areas are all higher than those of GROUP 1 even though GROUP 2 has smaller  $n$  numbers in those areas and the scores are not statistically significant higher than those of GROUP 1. These higher scores tell that online students have a higher rating score on computers in all areas in this category than two-way interactive students do.

In Multimedia category, significant difference ( $p = 0.041$ ) was found in M7 (*fascinating* and *mundane*) in Table 6. This  $p$ -value is less than 0.05, allowing us to reject  $H_02$  in M7 area. The significant difference between the two groups implies that multimedia is more *fascinating* to online students ( $n_2 = 23$ ,  $m_2 = 30.43$ ) (See Table 5) than to two-way interactive video students ( $n_1 = 28$ ,  $m_1 = 22.36$ ).

In Internet category, no significant difference was found between the mean rankings of GROUP 1 and GROUP 2 (See Table 8). Thus, there was not enough evidence to reject  $H_03$ . However, by examining the mean rankings in Table 7 we found that the rankings of GROUP 2 in all the areas are consistently higher than those of GROUP 1. The higher rankings of GROUP 2 than GROUP 1 indicate that online students have a more positive attitude toward Internet in all the areas in this category than two-way interactive students do although statistically the rankings do not show a significant difference.

In Two-Way Interactive Video category, no significant difference was found between the mean rankings of the two groups. In spite of this, higher mean rankings were found with GROUP 2 in the following areas: TV2 (*boring* and *interesting*) ( $n_2 = 21$ ,  $m_2 = 26.21$ ;  $n_1 = 27$ ,  $m_1 = 23.17$ ), TV4 (*exciting* and *unexciting*) ( $n_2 = 21$ ,  $m_2 = 26.95$ ;  $n_1 = 28$ ,  $m_1 = 23.54$ ), TV6 (*appealing* and *unappealing*) ( $n_2 = 21$ ,  $m_2 = 27.52$ ;  $n_1 = 28$ ,  $m_1 = 23.11$ ), TV7 (*fascinating* and *mundane*) ( $n_2 = 21$ ,  $m_2 = 26.33$ ;  $n_1 = 28$ ,  $m_1 = 24.00$ ), TV8 (*worthless* and *valuable*) ( $n_2 = 20$ ,  $m_2 = 25.58$ ;  $n_1 = 28$ ,  $m_1 = 23.73$ ), and TV9 (*inviting* and *uninviting*) ( $n_2 = 21$ ,  $m_2 = 27.00$ ;  $n_1 = 28$ ,  $m_1 = 23.50$ ). In these areas, the paired adjectives all have a strong connotation in expressing one's emotional feelings of favorable preference or liking (comparing with other pairs such as *important* and *unimportant*, *relevant* and *irrelevant*). Though not statistically significant, the mean ranking difference between GROUP 1 and GROUP 2 in these areas can still suggest that students of GROUP 2 have a more positive attitude toward two-way interactive video than GROUP 1 students do.

## Conclusion, Discussion, and Implications

Based on the results discussed above, we can now conclude that there is a statistically significant difference in the attitude toward computers between online and two-way interactive video students. The ratings of online students toward multimedia are significantly higher in M7 area than those of two-way interactive video students. The significant differences tell that as compared with two-way interactive students, online students have a more positive attitude toward computers and multimedia. As to the Internet, online students have consistent higher ratings toward Internet in all the areas than those of two-way interactive video students though the differences are not statistically significant. The positive attitude of online students toward computers, multimedia, and the Internet can be attributed to the fact that online students have to use computers and the Internet, sometimes multimedia, to complete their online courses. Most online courses require students to meet face-to-face at the first class meeting of the semester. After that, students meet online with their instructors and their classmates. Computers and the Internet are their primary tools to access and share course information, interact with course instructors, submit assignments, and even take exams.

In terms of two-way interactive video technology, online students have higher ratings on two-way interactive video over those of two-way interactive video students in several areas. These higher ratings, though not statistically significant, can still suggest that online students are preferably in favor of two-way interactive video technology. We believe that their preference for two-way interactive video technology is not by chance. They rated higher on two-way interactive video probably because, to them, the computer, multimedia, and Internet technologies involved in online courses are not as *interesting*, *exciting*, *appealing*, *fascinating*, *valuable*, and *inviting* as two-way interactive video technology involved in two-way interactive courses.

As technology categories, Multimedia, Internet, and Two-Way Interactive Video do not show an overall

significant difference in the mean ranking between online group and two-way interactive group. One of the most possibly relevant attributes is the smaller sample size. By examining the mean ranks tables of these categories, we can easily find that a larger sample size of over 50 or higher in each group could possibly produce much better results in terms of statistical significance. Another possible explanation is that the sampled students of the online courses might not have had an online course with the Web technology such as Blackboard or WebCT yet. If what they were using was the traditional Internet technology, such as just e-mail, chatting, list-serve, etc., it might not have encouraged them to rate multimedia and the Internet with higher scores.

To online instructors and instructional designers, the research results of Computer, Multimedia, and Internet categories may suggest that computers are regarded as a primary tool for the students. High quality computers with multimedia capability play important roles in the delivery of online courses. Course design should incorporate multimedia. Using instructional tools, such as Blackboard, may enhance the quality of course delivery and student learning, especially by integrating multimedia. To distance education instructors and administrators, students have stronger preference of taking distance education courses with two-way interactive video technology than with online technology. Therefore, offering distance education courses by using two-way interactive video technology may attract and encourage more students to take distance education and achieve better student retention and learning outcomes. Administrators need to plan and balance their budgets to provide more distance education courses with two-way interactive video. An expanded technical service team and administrators may be necessary to accommodate the growth in this area.

The research results may be valuable to leading education technology firms. Knowing that students have stronger preference of two-way interactive video technology, leading educational technology firms should allocate more resources in their research to improve the technology because a larger market is “reserved” for such a technology. Lowering their product price and building a closer relationship with potential higher educational institutions may be another strategy to keep their competitive advantages.

## **Limitations and Suggestions**

Subjects in this study were recruited from students taking online and two-way interactive video courses in the College of Business of a university in a particular semester. Due to the number of registered students in these distance education courses, the sample size of the study is limited, which may affect the significance level of the statistics. The larger the sample, the less likely we fail to reject the null hypothesis when it is actually false (Borg & Gall, 1998). However, the results and findings of the study were based on the mean rankings of student rating. They do reveal meaningful conclusions and implications.

For future duplicated and/or similar studies, a larger sample size, say at least 50 (over 100 would be the best), in each group is strongly recommended. That would increase the statistic power to reject the null hypotheses proposed by this study and produce more significant results. Another suggestion is to run the same study in more than one institution at the same time and compare the results. Comparison of the same studies in more than one institution may generate more persuading statistical results. With better statistical results, stronger arguments can be formed for distance education instructors to better off their instructional design, for administrators to promote a wider use of distance technology that students prefer, and for the industry to serve distance education with more affordable equipment and lead to new development toward the state-of-the-art technology in distance education.

## Appendix

TABLE 1: RANKS OF TECHNOLOGY CATEGORY AVERAGE

	GROUP2	N	Mean Rank	Sum of Ranks
AVERAGE C	1.00	28	20.23	566.50
	2.00	22	32.20	708.50
	Total	50		
AVERAGE M	1.00	28	24.16	676.50
	2.00	21	26.12	548.50
	Total	49		
AVERAGE E	1.00	24	22.33	536.00
	2.00	22	24.77	545.00
	Total	46		
AVERAGE TV	1.00	27	23.31	629.50
	2.00	20	24.92	498.50
	Total	47		

TABLE 2: TEST STATISTICS OF TECHNOLOGY CATEGORY AVERAGE

	AVERAGEC	AVERAGEM	AVERAGEE	AVERAGE TV
Mann-Whitney U	160.500	270.500	236.000	251.500
Wilcoxon W	566.500	676.500	536.000	629.500
Z	-2.894	-.476	-.618	-.398
Asymp. Sig. (2-tailed)	<b>*.004</b>	.634	.536	.690

a. Grouping Variable: GROUP2, \* p < 0.05

TABLE 3: RANKS OF COMPUTER CATEGORY

	GROUP2	N	Mean Rank	Sum of Ranks
C1	1.00	28	23.66	662.50
	2.00	23	28.85	663.50
	Total	51		
C2	1.00	28	22.52	630.50
	2.00	23	30.24	695.50
	Total	51		
C3	1.00	28	22.77	637.50
	2.00	23	29.93	688.50
	Total	51		
C4	1.00	28	23.05	645.50
	2.00	23	29.59	680.50
	Total	51		
C5	1.00	28	22.55	631.50
	2.00	23	30.20	694.50
	Total	51		
C6	1.00	28	23.73	664.50
	2.00	23	28.76	661.50
	Total	51		
C7	1.00	28	21.54	603.00
	2.00	23	31.43	723.00
	Total	51		
C8	1.00	28	24.71	692.00
	2.00	23	27.57	634.00
	Total	51		
C9	1.00	28	24.05	673.50
	2.00	23	28.37	652.50
	Total	51		
C10	1.00	28	22.11	619.00
	2.00	22	29.82	656.00
	Total	50		

TABLE 4: TEST STATISTICS OF COMPUTER CATEGORY

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
Mann-Whitney U	256.500	224.500	231.500	239.500	225.500	258.500	197.000	286.000	267.500	213.000
Wilcoxon W	662.500	630.500	637.500	645.500	631.500	664.500	603.000	692.000	673.500	619.000
Z	-1.369	-1.939	-1.936	-1.647	-1.871	-1.273	-2.415	-.714	-1.090	-1.928
Asymp. Sig. (2-tailed)	.171	.052	.053	.099	.061	.203	*.016	.475	.276	.054

a. Grouping Variable: GROUP2, \* p < 0.05

TABLE 5: RANKS OF MULTIMEDIA CATEGORY

	GROUP2	N	Mean Rank	Sum of Ranks
M1	1.00	28	26.18	733.00
	2.00	23	25.78	593.00
	Total	51		
M2	1.00	28	25.13	703.50
	2.00	22	25.98	571.50
	Total	50		
M3	1.00	28	24.93	698.00
	2.00	23	27.30	628.00
	Total	51		
M4	1.00	28	23.82	667.00
	2.00	23	28.65	659.00
	Total	51		
M5	1.00	28	26.41	739.50
	2.00	23	25.50	586.50
	Total	51		
M6	1.00	28	24.61	689.00
	2.00	23	27.70	637.00
	Total	51		
M7	1.00	28	22.36	626.00
	2.00	23	30.43	700.00
	Total	51		
M8	1.00	14	11.50	161.00
	2.00	9	12.78	115.00
	Total	23		
M9	1.00	28	25.55	715.50
	2.00	22	25.43	559.50
	Total	50		
M10	1.00	28	26.02	728.50
	2.00	23	25.98	597.50
	Total	51		

TABLE 6: TEST STATISTICS OF MULTIMEDIA CATEGORY

	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
Mann-Whitney U	317.000	297.500	292.000	261.000	310.500	283.000	220.000	56.000	306.500	321.500
Wilcoxon W	593.000	703.500	698.000	667.000	586.500	689.000	626.000	161.000	559.500	597.500
Z	-.110	-.223	-.606	-1.235	-.232	-.798	-2.044	-.545	-.031	-.010
Asymp. Sig. (2-tailed)	.913	.824	.544	.217	.816	.425	*.041	.585	.975	.992

a. Not corrected for ties.

b. Grouping Variable: GROUP2, \* p < 0.05

TABLE 7: RANKS OF INTERNET CATEGORY

	GROUP2	N	Mean Rank	Sum of Ranks
E1	1.00	26	24.10	626.50
	2.00	23	26.02	598.50
	Total	49		
E2	1.00	26	22.77	592.00
	2.00	23	27.52	633.00
	Total	49		
E3	1.00	26	23.85	620.00
	2.00	23	26.30	605.00
	Total	49		
E4	1.00	26	23.90	621.50
	2.00	23	26.24	603.50
	Total	49		
E5	1.00	26	22.90	595.50
	2.00	23	27.37	629.50
	Total	49		
E6	1.00	26	23.98	623.50
	2.00	23	26.15	601.50
	Total	49		
E7	1.00	26	23.83	619.50
	2.00	22	25.30	556.50
	Total	48		
E8	1.00	25	23.56	589.00
	2.00	23	25.52	587.00
	Total	48		
E9	1.00	25	21.02	525.50
	2.00	23	28.28	650.50
	Total	48		
E10	1.00	26	23.37	607.50
	2.00	23	26.85	617.50
	Total	49		

TABLE 8: TEST STATISTICS OF INTERNET CATEGORY

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
Mann-Whitney U	275.500	241.000	269.000	270.500	244.500	272.500	268.500	264.000	200.500	256.500
Wilcoxon W	626.500	592.000	620.000	621.500	595.500	623.500	619.500	589.000	525.500	607.500
Z	-.547	-1.204	-.645	-.582	-1.135	-.545	-.369	-.518	-1.872	-.900
Asymp. Sig. (2-tailed)	.584	.229	.519	.560	.256	.586	.712	.604	.061	.368

a. Grouping Variable: GROUP2

TABLE 9: RANKS OF TWO-WAY INTERACTIVE VIDEO CATEGORY

	GROUP2	N	Mean Rank	Sum of Ranks
TV1	1.00	28	26.32	737.00
	2.00	21	23.24	488.00
	Total	49		
TV2	1.00	27	23.17	625.50
	2.00	21	26.21	550.50
	Total	48		
TV3	1.00	28	25.34	709.50
	2.00	21	24.55	515.50
	Total	49		
TV4	1.00	28	23.54	659.00
	2.00	21	26.95	566.00
	Total	49		
TV5	1.00	28	25.73	720.50
	2.00	21	24.02	504.50
	Total	49		
TV6	1.00	28	23.11	647.00
	2.00	21	27.52	578.00
	Total	49		
TV7	1.00	28	24.00	672.00
	2.00	21	26.33	553.00
	Total	49		
TV8	1.00	28	23.73	664.50
	2.00	20	25.58	511.50
	Total	48		
TV9	1.00	28	23.50	658.00
	2.00	21	27.00	567.00
	Total	49		
TV10	1.00	28	27.70	775.50
	2.00	21	21.40	449.50
	Total	49		

TABLE 10: TEST STATISTICS OF TWO-WAY INTERACTIVE VIDEO CATEGORY

	TV1	TV2	TV3	TV4	TV5	TV6	TV7	TV8	TV9	TV10
Mann-Whitney U	257.000	247.500	284.500	253.000	273.500	241.000	266.000	258.500	252.000	218.500
Wilcoxon W	488.000	625.500	515.500	659.000	504.500	647.000	672.000	664.500	658.000	449.500
Z	-.776	-.761	-.198	-.840	-.428	-1.088	-.574	-.461	-.864	-1.581
Asymp. Sig. (2-tailed)	.438	.447	.843	.401	.669	.277	.566	.645	.387	.114

a. Grouping Variable: GROUP

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# Studies of International Knowledge Transfer in Different Contexts

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## Abstract

As going international is almost inevitable for business expansion, particularly for those companies that utilize developing countries as a path. Entry mode as an important and distinct area in management research in international business has received substantial recognition. Various terms and definitions have been adopted by plenty of research in communicating the conception of knowledge transfer (KT). Knowledge management issue is prevailing in this new economy that initiating from the end of last century; the phenomenon booms for another vertex in the academic streams would be feasible. In our study, we wish to explore how companies chosen their entry mode, and how such choices affect KT efficiency consequently? 27 papers were chosen as sample from top tier journals that are generally accepted as major vehicle for international business studies. Focusing on KT, we performed comprehensive contrasts and comparisons to reveal the distinctiveness of these works in terms of the definition per se, the measurement, the operational definition, the scales used, and the key findings. This research recommend that some biases, including unit of analysis under the sections of research design, sampling, and statistics that are present respectively in these papers shall be carefully avoided to ensure the generalizability.

## Introduction

As business becomes more global and international management (IM) issues play a more central role in business practice, the importance and relevance of IM research increases. Internationalization has become a popular path for expansion (Ohme, 1989a), particularly among companies, which are base in countries with small domestic economies. As such, international entering mode of management has gained recognition as an important and distinct area of management research. More, we would like to respond Steve Werner (2002), he review analyzes recent trends in the international management (IM) literature from 1996 to 2000 from 20 top management (and management related) journals, and discussed about internationalization of journal. His finding about knowledge transfer is not very board and popular in top 20 journals, and at this article, we try to review more other top journals, for example, international business review between recent years from 1998 to 2003. Then, a recent development in strategic management is to analyze and develop a firm's strategy by focusing on its resources instead of the external environment. This more inward looking knowledge-based theory of the firm. Under this knowledge –based view, strategic alliance can be interpreted as “ the transfer of an intermediate good, called knowledge, which embodies a firm's advantage, whether it be the knowledge underlying technology, production, marketing or other activities” (Kogut & Zander, 1993, p. 628).

## Origins and Overview of Knowledge Transfer

Over the last few years, there has been an upsurge in interest among scholars on the importance of knowledge management in firms. This more inward looking approach is known as the resource-based view (see Wernerfelt, 1984; Conner, 1991; Mahoney & Pandian, 1992). By focusing upon knowledge as the most strategically important resource of the firm, some scholars are in the process of developing a knowledge-based theory of the firm (e.g. Grant, 1996; Spender, 1996). However, Steve Werner (2002) argues IM research may be divided into three categories. One of three categories is comprised of studies that look at the management of firms in a multinational context. Stated differently, this research emphasizes the international aspects of management that do not exist in domestic firms (Ricks, 1991). This includes studies looking at the internationalization process, entry mode decisions, foreign subsidiary management, expatriate management, etc. In this study, we follow Steve Werner (2002) to review

about articles of international of knowledge transfer.

### **Knowledge Transfer in Acquisitions**

Our literature review revealed little if any research explicitly directed at this phenomenon. Most relevant is the so-called “process” school, which is concerned with the creation of value through post-acquisition integration (Lindgren, 1982; Shrivastava, 1986; Haspeslagh and Jemison, 1991; Hakanson, 1995; Greenwood et al, 1995). Haspeslagh and Jemison (1991), for example, discussed the issue of knowledge transfer, but their focus was on how knowledge transfer may lead to overall value creation, not on the factors facilitating knowledge transfer per se. There has also been some recognition at an aggregate level that resource redeployment can have an important impact on value creation in acquisitions (Capron, 1996), but of course such studies do not provide much insight into the processes of resource redeployment. Finally, a related body of literature has looked at the acculturation process (Berry, 1982) when two different organizations are brought together. The essential contribution of such studies to the current work is that knowledge transfer between the merging organizations depends on the development of a cooperative relationship.

### **Definition of Knowledge Transfer**

Knowledge transfer is an elusive concept that has been classified and defined in a variety of ways. The concept of transfer is also difficult to capture. The issue here is that no definite distinction between transfer and creation of new knowledge exists (Granstrand, 1982; Sahal, 1981). As Zander (1991) observes, “Recipients would normally be obliged to devote substantial resources to assimilate, adapt, and improve upon original technology. Modification and further development of the technology are thus very often an integrated part of the transfer.” Along the same lines, Hayami and Ruttan (1971) introduced a distinction between kinds of transfer according to the degree of change the knowledge is subjected to during transfer. Thus, a literature search reveals that what some call knowledge transfer, others define as knowledge combination, knowledge creation, or learning (Bartlett and Ghoshal, 1989; Westney, 1993; Hedlund, 1994; Nonaka and Takeuchi, 1995).

For example, Bresman et al., (1999) & Zander et al., (1991) argue knowledge transfer refers to the process of knowledge being passed on from the transferor to the recipient, such that the recipient accumulates or assimilates the new knowledge. Similarly, Robin Cowan et al., (2001) argue knowledge transfer be taken to mean “the process by which knowledge travels from a knowledge holder (a person or organization possessing the knowledge) to a knowledge recipient (a person or organization receiving the knowledge) through one or a greater number of transfer channels”. However, Gallouj (2000) explained transfer of knowledge, just like the transfer of any good, can be seen as having two main aspects- a mere “physical movement” and an “economic circulation” (involving transfer of ownerships). For international context, Downes & Thomas (2000) argue expatriation as a means of transferring knowledge; in essence, the transfer process is cyclical, with the subsidiary location as the recipient of general knowledge during expatriation and the corporate location as the recipient of market-specific knowledge during the assignment as well as upon the manager’s return. From within organizational context, knowledge transfer can be defined as the integration, by individuals and groups in its own knowledge base, of new external knowledge that will modify its beliefs and routines and that can be used in commercial activities (Rolland, 2000).

In order to complete this definition, we take into consideration the work of Argote, Ingram, Levine and Moreland (2000) that define knowledge transfer as the process through which a unity (individual, group, department, organization) is affected by the experience of another. We keep these two definitions because they develop a dynamic and organizational aspect of knowledge transfer linking experience, organizational learning and network concept.

### **Dimensions of Knowledge Transfer**

In defining the dimensions of knowledge transfer, we inspire our classifications from the study of Lahti and Beyerlein (2000) concerning knowledge transfer in consulting firms, and from the work of Seufert, von Krogh and Bach (1999) where they described a framework of knowledge networks including knowledge architecture (IT tools) and knowledge work processes (social interaction and communication processes). Among Maqtusik and Hill (1998), firm use formal and informal integrating mechanisms in order to facilitate the transfer of existing knowledge to different areas of the firm. We consider three dimensions in knowledge transfer propensity:

- The impact of IT tools on knowledge transfer propensity;
- The impact of social networks on knowledge transfer propensity;

- Inter-individual learning between colleagues.

*The impact of information technology tools on knowledge transfer propensity.*

“Whilst information technology should be seen as a necessary tool to knowledge transfer, new computing and telecommunications technologies allow organizations to communicate quickly and effectively with subsidiaries and business partners around the globe. The advances in information technology have significantly influenced people’s ability to share and transfer information and knowledge, and also to reduce the costs and accelerate the process of transferring best practices” (Bender and Fish, 2000). The proliferation and compulsory integration nowadays of information technology tools in companies, is not a widely “accepted” transformation for all employees. In fact, some employees are resistant to change, and it implies education, training and lost of time to adapt their working habits. However, the growing importance of IT tools change several work processes in companies. What could be interesting in building a scale of knowledge transfer propensity is to assess the perception of employees of these tools in terms of knowledge sharing (frequency, quantity, ease). Several researches could be of great help (Williams et Wilson, 1997; Warkentin et al., 1997; O’flaherty et Williams, 2000).

*The impact of social networks on knowledge transfer propensity.*

Social networks are the best way to transfer knowledge, and above all, tacit knowledge. In fact, social networks are composed of individuals that are pooled together towards a defined goal. Therefore, individuals cooperate, share knowledge without any restriction. In this perspective, communities of practice seem to be a great way for transferring knowledge. Snyder and Wenger (2000) described the crucial role played by communities of practice (Brown and Duguid, 1991; Hildreth et al., 2000; Salk and Brannen, 2000; Stork and Hill, 2000) in firms, in terms of tacit knowledge transfer. Their constitution is free, nothing is formalized which accelerate the knowledge transfer process because there are no barriers between individuals. Everybody makes part of this kind of community because it is its own will. Moreover Weick (1976) argued that informal organizational entities are more adaptive because they are less constrained by the organization system of which they are part. Therefore, communities of practice have two advantages: the ability to transfer knowledge easily because it is its own purpose, and the flexibility that characterized this group of individuals constituted on its own. “Communities of practice are seen as an effective and flexible mean of bringing both skills and expertise to specific problems and tasks” (Hildreth et al., 2000). The story telling described by Orr (1990) enabled copier technicians to exchange tacit knowledge and to find a solution to a problem. “Over time, this solution was passed around the technicians and became part of the stock of knowledge of the community” (Hildreth et al., 2000).

Finally, it is important to differentiate communities of practice and teams. In fact, in communities of practice, as members know each other better, have a deeper confidence in each other and trust each other, they gain legitimacy. This legitimacy gives every individual the willingness to go deeper in their relationships, to share more knowledge, best practices, to participate more to organizational events and success. We think that the existence of such groups of people constitute a wonderful support to knowledge transfer. The existence of communities of practice in companies appears to be very important in measuring employees’ knowledge transfer propensity. This is based on several studies (Snyder et Wenger, 2000; Hildreth et al., 2000; Salk et Brannen, 2000).

*Inter-individual learning between colleagues.*

This dimension of knowledge transfer propensity is the last identified. It could be interesting to measure knowledge transfer between colleagues in terms of learning. “Transfer of knowledge occurs everyday in the work place, when juniors are taught the tricks-of-the-trade by their seniors” (Sveiby, 1996). Therefore, we try to assess the importance of colleagues in employees learning. This form of inter-individual learning is based mainly on Cohen and Levinthal (1990) and Szulanski (2000) articles.

**Knowledge Transfer under Different Modes of Governance**

While knowledge transfer in acquisitions has received very little explicit attention, there has been considerable attention devoted to the related questions to the related questions of knowledge transfer within a single organization, knowledge transfer in alliances and joint ventures, and knowledge transfer between independent organizations.

Here we follow and modify Henrik Bresman et al., (1999), they finding as a prelude to focus on the specific case of acquisitions.

*Knowledge transfer within the organization*

Research on intra-organization knowledge transfer has a long history emanating from studies on choice of

international technology transfer mode (Pavitt, 1971; Mansfield et al., 1979; Vernon and Davidson, 1979). Scrutiny reveals a focus on a relatively small number of variables. One line of search on the timing of transfer has shown a dramatic increase in transfer speed from product introduction to transfer of technology to subsidiaries (Mansfield and Romeo, 1980; Davidson, 1980; 1983).

Another line of research on transfer costs has generally found that experience is an important factor (Teece, 1976; 1977; Mansfield et al., 1979). More recently, Zander (1991) and Szulanski (1996) have taken a broader approach to internal knowledge transfer. Zander (1991) found that the tacit-articulated dimension of knowledge had an important impact on the smoothness of transfer of tacit knowledge was more difficult to accomplish than the transfer of more articulated knowledge. Szulanski (1996) focused on the transfer of best practices within firms, and the difficulties experienced in the transfer process. His finding was consistent with Zander's. When analyzing factors causing difficulties in the knowledge transfer process, Szulanski found that, the tacit-articulated dimension explain more variance than any other factors, such as motivation.

#### *Knowledge transfer in alliances and joint ventures*

Research into knowledge transfer through alliances and joint ventures is a relatively recent phenomenon. Kogut (1988) was the first to explicitly argue that joint ventures could be motivated by an organizational learning imperative. He proposed that a joint venture "...is used for the transfer of organizationally embedded knowledge which cannot be easily blueprinted or packaged through licensing or market transactions" (Kogut, 1988: 319). At around the same time, Westney (1988), Hamel (1991), and Inkpen (1992) developed related perspectives on the ways in which learning can be achieved through alliances and joint ventures. Since then, there has been a proliferation of research into the knowledge transfer process across alliance and joint venture boundaries (Inkpen and Crossan, 1995; Doz, 1996; Mowery et al., 1996). The common thread in the results of these studies is that the ability to re-evaluate and learn is key to success.

#### *Knowledge transfer between independent firms*

The transfer of knowledge between independent organizations has not received nearly as much attention as the modes of transfer discussed so far. Obviously managers would prefer that valuable knowledge not get transferred to other organizations, but the reality is that the process does occur, through some combination of imitation, reverse engineering, movement of personnel and business intelligence. Mansfield (1985), for example, found that a decision to develop a major new product or process was known to competitors within 12-18 months. Levin et al., (1987) studied the cost of imitation, and showed that "major innovations" incurred higher imitation costs than "typical innovations". Further, Zander (1991) found that the level of difficulty of an intra-organization knowledge transfer is not necessarily the mirror image of the level of difficulty of its imitation.

## **Review Empirical Research of International of Knowledge Transfer**

This review provides an integration and synthesis of 27 empirical KT articles published from 1981 to 2003 in academy of management journal (2), international business review (4), journal of international business studies(8), Organization Studies(5), Strategic Management Journal (8). To identify articles for potential inclusion in this review, we conducted a comprehensive literature search using electronic database in business and social science, indices of top journals from conceptual and empirical KT articles. In aggregate, we believe that our selection of articles provides a representative, though not exhaustive, selection of empirical work on KT that is of interest to both of non-individual level and multinational organization. A summary of the sample, focal variables and method of these studies is provided in Appendix. The antecedents of the various types of knowledge transfer include various firm, partner, and venture factors. Transaction cost models, organizational forms, and the use of experts have been shown to relate to the processes of knowledge transfer. The consequences of knowledge transfer include general, business, and HR performance, information processing, cycle times, efficiency, venture outcomes, firm value, relationship commitment, and customer satisfaction. Again, consequences are the most studied sub-topic. However, a wide range of firm level consequences has been explored.

Our review centers around a set of three specific questions: (1) In what context has KT been applied? (2) What methods have been used to investigate KT? Then, we would try to discuss how useful is KT's conceptual

framework?

#### **In what Contexts has Knowledge Transfer been Applied?**

Drawing from its industry origins in manufacture and service, knowledge transfer explains a variety of problems of cost, for example, time and culture. Knowledge transfer's analytical diversity is clearly evident among studies in our review. Specifically, these studies can be classified within one of four main contextual domains: (1) MNCs parent-subsidiary, (2) stakes of ownership, (3) international strategic alliances, (4) international joint venture, (5) take over, (6) buyer-supplier, (7) all mode of internationalization.

*Knowledge transfer within the organization as MNCs parent-subsidiary.*

The most common applications of international knowledge transfer focus on the parent-subsidiary. These studies focus on all of industries. Most studies measure their performance by marketing and R&D knowledge and few by FDI (Xavier Martin, Robert Salomon, 2003). More, most studies measure with formal rules, for example, firm size and sales and few by informal methods, for example, informal discussions and communication.

*Knowledge transfer in alliances and joint ventures.*

**International Strategic Alliances:** This is next to MNCs parent-subsidiary. These studies focus on the technology industry. As industry characters, most studies prefer about the R&D knowledge and some of marketing knowledge. Also as parent-subsidiary, most studies measure with formal rules, for example, firm size and sales and few by informal methods, for example, informal discussions and communication (Bernard L. Simonin, 1999; Ranjay Gulati, 1999).

**International Joint Venture:** These studies focus on the manufactory industry, its more board than international strategic alliances. Most studies measure a whole knowledge by both formal and informal (e.g. trust) rules (Peter J. Lane, Jane E. Salk and Marjorie A. Lyles, 2001; Marjorie A. Lyles, Jane E. Salk, 1996).

**All Entry Mode:** Anoop Madhok and Thomas Osegowitsch (2000) and Jaideep Anand, Andrew Delios (2002) used a dynamic capabilities perspective to measure knowledge transfer by a long-range and large secondary data in the international Biotechnology and others industries. In Anoop Madhok and Thomas Osegowitsch (2000) study, we found they use alliance mode to measure different knowledge transfer effects between countries that is different diminution to observe. But, Jaideep Anand, Andrew Delios (2002) focused on the brand, marketing skill and R&D knowledge.

*Knowledge transfer between independent organizations.*

In this study, we just found a study of buyer-supplier between independent organizations. Axele Giroud (2000) use different measure methods observe electric industry. He argues knowledge transfer in buyer-supplier relationship would not only focus on organizational knowledge, but also include a completely market-oriented, for example, market strategic, and kinds of products.

#### **What Method has been Used to Investigate Knowledge Transfer?**

In addition to its contextual diversity, the KT literature also displays a substantial degree of methodological diversity. We highlight important methodological issues and summarize the data collection and measurement approaches employed in the knowledge transfer literature.

*Data collection.*

Among the studies in our review, the most common means of data collection are surveys and secondary data. Some studies of data collection are case studies and interviews, because it is difficult to interview top managers. These are usually directed to large-level executives at large U.S. manufacturing organizations or to their partners/subsidiaries. These key informants usually have a functional responsibility for some element of both informal as communication (Bresman, Birkinshaw, Nobel, 1999), visits and meetings articulability of knowledge (Bresman, Birkinshaw, Nobel, 1999), time (Phene, Almeida, 2003; Bresman, Birkinshaw, Nobel, 1999), culture (Bernard L. Simonin, 1999), relational context (Vermeulen, Barkemam 2001) and formal as knowledge base, experience, rules and routines in all studies of reviews. However, secondary source would not include informal question.

Although survey research appears to be the data collection mode of choice, a sizable number of knowledge transfer studies use secondary data collection techniques. For example, Vermeulen and Barkema (2001) obtain secondary data on 1349 observations included in the annual reports of these firms from 1966 to 1994. Similarly, Simonin (1999) gathered data on the secondary report published information in the Corptech directory. Other secondary data sources used by researchers include the International Fabs on Disk database (Matin, Salomon, 2003),

CATI database (Mowery et al., 1996), Trade Administration at the Department of Commerce (Anand and Delios, 2002) and Corptech directory (Simonin, 1999).

In addition to these secondary publications, another rich source of secondary data frequently employed by scholars comes from contractual agreements between exchange partners, as Makino and Delios use Toyo Keiza (1992)'s data which combined with new data.

Moreover, we found to research multi-alliance governance or multi-countries, researchers would collect data from secondary source (Freek Vermeulen, Harry Barkema, 2001; Anoop Madhok, Thomas Osegowitsch, 2000; Xavier martin, Robert Salomon, 2003; Jaideep Anand, Andrew Delios, 2002). However, not all secondary source just only used by multi-alliance governance or multi-countries, that be used on every contexts.

#### *Measurement.*

Because of its contextual and methodological diversity, the empirical knowledge transfer literature presents a host of measurement-related issues for potential analysis. We focus our discussion on issues related to the operationalization of knowledge transfer constructs. These issues are especially important for future knowledge transfer investigators, because many of the studies in our review have faced measurement-related difficulties. Specifically, our discussion addresses the operationalization of knowledge transfer's key dependent (knowledge transfer) and independent (tools/formal or social networks/informal) constructs.

**Knowledge Transfer:** Among the studies in our review, the most common components of knowledge transfer are knowledge base and performance. The operationalization of performance is financial performance, and FDI. The operationalization of knowledge base is 4P of marketing and R&D knowledge.

**Impact of IT Tools:** Among the studies in our review, the most common operationalization of IT tools is language ability, job's relative knowledge and experience, firm size, located of firm, experience and distance of organization.

**Impact of Social Networks:** Among the studies in our review, just only two articles used this communication component of social network dimension. The operationalization of communication is informal communication, visits and meetings times. However, among the studies in our review, we found some of independent variable of knowledge transfer of multi-national studies was not included in common dimensions. That is different modes of governance, as entry mode, for example, Aydin and Terpstra (1981) and Almeida, Song, Grant (2002). That is the multi-nation's specific character of independent variable.

## **Discussion**

In a broad sense, our research provides amount of empirical evidence for the factors influencing international knowledge transfer. As we repress prior section, knowledge transfer is not a clearly identify. As showing the table 1, knowledge transfer's dimension including knowledge learning, sharing, experience, et al. More, many researchers used various names and definitions similar with the conception of knowledge transfer to active their researches. We argue knowledge management is a popular issue from 20 century. In the academic word, this theory is new and developing, so it is need to clear more.

On the Table 1, most of the studies were belong to tools dimension, joust only two studies about social network dimension. Whether international knowledge transfer or not, these two dimensions were both important measurement, especially social relationship in Asia. Many researchers argue tacit knowledge is more important than explicit knowledge, and then most of tools dimension are just only to measure the explicit knowledge. Most of the tacit knowledge could not collect from secondary data, and it could collect from questionnaire about informal discussion, for example, off-job talking, actives, attitude of talking and doing, ant so on and communication frequency, place, time, context, and so on. We argue if two alliance of organizations active frequency together more and more, their knowledge transfer would be more effective because they were closely more as one organization. Social relationship dimension was not being discussed in these studies that were very unfortunately to waste time and data.

In the international knowledge transfer dimension, we argue should be adding one more dimension is "international governance mode" as entry mode. In fact, entry mode is a contingency factor in many international researches. However, it cases serious bias of measure result of the international knowledge transfer. It would affect

top managers or CEO makes wrong decision.

TABLE 1: DIMENSIONS OF KNOWLEDGE TRANSFER

Dimensions	Components	Themes	Citations
Impact of IT tools on knowledge transfer	Perception of IT tools in terms of knowledge sharing	Knowledge sharing	Vermeulen and Barkema (2001); Kostova, Eric W. K. Tsang (1999); Hasegawa (2000); Phene and Almeida (2003); Giroud (2000); Lord and Ranft (2000); Madhok and Osegowitsch (2000); Aydin and Terpstra (1981); Lyles and Salk (1996); Grosse (1996); Makino and Delios (1996); Simonin (1999); Bresman, Birkinshaw and Nobel (1999); Lam (1997); Almeida, Song and Grant (2002); Shenkar and Li (1999); Schulz (2003); Martin and Salomon (2003); Mowery, Oxley and Silverman (1996); Simonin (1999); Gulati (1999); Dussauge, Garrette and Mitchell (2000); Lane, Salk and Lyles (2001); Gupta and Govindarajan (2000); Belderbos (2003); Anand and Delios (2002).
		Social relations	
	Learning		
	Modernization		
	Perception of exchanges with IT tools in daily work	Experience	
Impact of social networks on knowledge transfer	Existence of social networks that promote knowledge sharing	Informal discussions	Birkinshaw and Nobel (1999)
		Communication quality	
	Existence of communities of practice	Communities of practice	
Inter-individual transfer between colleagues	learning	Learning	Not our research dimension

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## Appendix

SUMMARY OF SELECTED KNOWLEDGE TRANSFER STUDIES

	Author	IV	DV	Research method	Sample	Statistic	Alliance types
1	Freek Vermeulen, Harry Barkema, 2001	survival, acquisition/Greenfield	number of preceding green fields and acquisitions, preceding green fields in familiar markets/new markets, preceding acquisitions in unrelated/related domains	annual reports, if incomplete data will content with telephone and fax	1349 observations included in the annual reports of these firms between 1966 to 1994, 61% of these affiliates were located abroad.	survival analysis, logit model	international strategic alliances
2	Tatiana Kostova, Kendall Rothm, 1999	institutional profile, relational context	practice adoption (implementation, internalization)	questionnaire to managers and employee	Based on the sample from 534 managers and 3238 non managerial employees in 104 subsidiary locations from ten countries.	ANOVA, regression	parent-subsidiary
3	Eric W. K. Tsang, 1999	language ability, some job's relation knowledge and experience, before job experience in China, mature personality	Performance of IJV, good relationship with partner of China, closely working with china employees	The choice of companies was dependent upon access.	12 Singapore multinational corporations in several manufacturing industry with respect to their foreign direct investments in China.	-	parent-subsidiary
4	Harukiyo Hasegawa, 2000	corporate culture, production systems and industrial relations of a British firm which was taken over by a Japanese company	dialectical process of capitalist KT	none	a British firm	-	international strategic alliances
5	Anupama Phene, Paul Almeida, 2003	time	Innovation activities & scale of multinational subsidiary ; external of KT, technology innovation	mail questionnaire	Our sample of MNE subsidiaries is derived from six US semiconductor firms that had overseas patenting activity between 1981-1992. Total of 268 observations of 26 foreign subsidiaries in 12 countries.	ANOVA	parent-subsidiary
6	Axele Giroud, 2000	firms size, kinds of product, market order, pursue strategic	KT	questionnaire	The 49 questionnaires are the result of a field research carried out in the Malaysian electrical and electronics sector in the second half of 1996.	logistic	buyer-supplier

7	Michael D. Lord, Annette L. Ranft, 2000	tacit ness, corporate HQ office, corporate centralization, linkage of incentives	internal transfer of local market knowledge	On-site interviews with 31 corporate and divisional managers. These seven firms served as sites for pre-testing and refinement of a survey instrument.	a sample of 133 divisional entries of diversified, U.S.-based firms into three host countries(China, India, and Russia) by telephone, both to describe the study and to solicit their participation.	regression	parent-subsidiary
8	Anoop Madhok, Thomas Osegowitsch, 2000	alliance mode	Europe. and U.S, who get more knowledge	secondary data	The sample is on transactions between the US and Europe between 1981-1992, and at least one commercial party.		all
9	Nizam Aydin, Vern Terpstra, 1981	Company variables, parent company variable ; others》、 industry variable, different teams of marketing experience	Marketing knowledge (planning, research, product policy, distribution policy, promotion policy, price policy, and performance)	interview	At the field study were 92 foreign subsidiaries manufacturing in Turkey.	None	parent-subsidiary
10	Marjorie A. Lyles, Jane E. Salk, 1996	Learning ability, goal, knowledge type from foreign partner (marketing or R&D), explicit knowledge, educational training, culture, ownership over 50% or not, trust	Knowledge acquisition and performance	Hungarian interviewers, and pre-tested the survey instrument. Surveys were translated and back-translated to avoid any language misunderstanding.	The sample consists of 201 small/medium-sized IJVs with an average employee size of seventy-two employees. The majority of the IJVs were in manufacturing of machinery, electronics, textiles, and food processing.	multi-regression	international joint venture
11	Rober Grosse, 1996	ownership ratio, alliance years, internationalization situation, alliance of specific knowledge(manager /employee ratio	Case: the key technology of industry and function  Quantity: technology transfer	By telephone first, then interviews. In each country the objective was to obtain three interviews in each industry, at least on firm not based in the United States.	Primary data compiled for this paper come largely from a series of interviews at home offices and Latin American affiliates (subsidiaries, branches, partnerships, and other kinds of affiliates) of transnational corporations in five service industries: advertising, commercial banking, computer software, hotels, and management consulting.	Bivariate regression	parent-subsidiary
12	Shige Makino, Andrew Delios, 1996	Exist local partner or not, post experience years of foreign, post experience years of joint venture, and their interaction.	financial performance	Used Toyo Keiza(1992)'s data	Based on a sample of 558 Japanese joint ventures located in southeast and East Asia.	logistic regression	international joint venture

13	Bernard L. Simonin, 1999	Knowledge specific, partner specific	ambiguity	The questionnaire design, and the implementation and conduct of the surveys were based on the TDM.	151 completed questionnaires were collected, majority of respondents were top executives in some of America's largest corporations.	LISREL VIII-SEM	international strategic alliances
14	Hhenrik Bresman, Julian Birkinshaw, Robert Nobel, 1999	communication, visits and meetings articulability of knowledge, time elapsed	acquiring to acquired and acquired to acquiring	questionnaire	Three MNCs had acquired companies with as main objective to gain access to the acquired companies' R&D. In addition, Fifteen large Swedish MNCs in the questionnaire study received 42 effect questionnaires from R&D by mail and telephone.	OLS& binomial regression	parent-subsidiary
15	Alice Lam, 1997	governance forms, task structure, knowledge structure, job system of partner	performance	observation	The case is an example of a technological partnership in knowledge-intensive industry. The Japanese and British partner firms are both global competitors in the electronics industries	case study	international strategic alliances
16	Almeida, song and Grant, 2002	Alliance mode ( multi-nation, alliance, market )	Knowledge building	three samples of firms, sample A-the MNCs, sample B-the alliance, sample C-the market	A, B, C: 21 mnc, 10 samples of each, total 146	Binomial regressions	international strategic alliances
17	Oded Shenkar' Jiatao Li, 1999	Management, marketing, technology, right of joint venture, international alliance	Searching for management , marketing, and technology skill	use FIDA designed the questionnaire	data from 90 partner-seeking firms in China	logistic regression	international strategic alliances
18	Martin Schulz, 2003	Local knowledge, extra-unit knowledge strategic context	Knowledge inflow by horizontal or vertical	mail survey-questionnaire	570 subsidiaries in the population, 238were located in Denmark, and 332 were located in the United States.	regression analysis	parent-subsidiary
19	Xavier Martin, Robert Salomon, 2003	Accumulating learning	FDI	To collect data in the International Fabs on Disk database, from the list to exclude 35 Taiwanese plants.	Final sample is 386 observations from 84unique parents, 102 are foreign direct investment.	Probit regression	parent-subsidiary
20	Mowery, Oxley and Silverman, 1996	Alliance types, international alliance, R&D density, sales.	KT between organizations	secondary report from CATI database get all data	A total of 792 alliances from the Cooperative Agreements and Technology Indicators data base.	Regression	international strategic alliances

21	Bernard L. Simonin, 1999	Knowledge character ( tacit, specificity, complex ) , experience, partner selfness, culture distance, organization distance	ambiguity, KT	Secondary reported concentrations of SA. A multiple-group analysis is advocated that requires the sample to be divided into a high and low group along each of these variables (median split)	A sample of 147 from 1000 public and privately owned U.S. companies was randomly drawn from the Corptech directory. This study targeted large and medium-size companies operating in high-technology sector.	LISREL VIII-SEM	international strategic alliances
22	Ranjay Gulati, 1999	Cligue, new density, experience of alliance	If firm take please alliance in specific year	interviews with managers	Interviews with 153 managers in 11 large multinational corporations over a two-years period. To collect data on a sample of 166 firms in new materials, industrial automation, and automotive products.	panel probit estimate model	international strategic alliances
23	Pierre Dussauge, Bernard Garrette and Will Mitchell, 2000		Alliance result	secondary data from journal and annual report	A set of 227 alliances formed in a range of manufacturing industries. All the alliances involved competing firms that operated in the same industries.	logistic regression & regression	international strategic alliances
24	Peter J. Lane, Jane E. Salk and Marjorie A. Lyles, 2001	Trust, relative absorptive capacity, culture coordination, present learning, IJV elasticity, object/goal, management support, specific, IJV strategic, training of foreign partner, prior learning, prior performance, relative	Knowledge learning, performance	secondary data from Hungary's Central statistic database and on the survey data Lyles and Salk collected in 1993	The sample built on the survey data Lyles and Salk collected in 1993 using data from a second survey in 1996. More, included 123 data in our new interview.	multi-regression	international joint venture
25	Anil K. Gupta and Vijay Govindarajan, 2000	Subsidiary size (employee),relative economic level, main incentive, formal integration mech, vertical socialization mech, decentralization	KT (inflow, outflow)	Collected through questionnaire survey and secondary sources. Through interview to pretest and then develop questionnaire.	A total of 374 questionnaires were returned. The number of respondents for U.S., Japan, and European MNCs were 117, 112, and 145, respectively.	multivariate OLS regression	parent-subsidiary

26	Rene Belderbos, 2003	non-development experience, parent R&D strength, internationalization experience of parent company, R&D strength of parent company, interaction with few joint venture partner, alliance type, acquisition affiliate experience	affiliate R&D strength	Secondary data. Benchmark Survey on Foreign Direct Investment	Data from the fifth Benchmark Survey on Foreign Direct Investment held in 1993.	censored regression (tobit) model	parent-subsidiary
27	Jaideep Anand, Andrew Delios, 2002	Technology ability, brands, sales force	proportion of entries by acquisition	Secondary data. Trade Administration at the Department of Commerce, published annually in FDI in the U.S.	A sample of entries made into the United States in the 1974 to 1991 period. The major investing countries were Japan (4160 entries), the U.K. (2778), Canada (2316), Germany (1540), France (924), the Netherlands (745), and Switzerland (556).	chi-square	all

# The Role of Anonymity in Online Communications

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## Abstract

There are many reasons to be anonymous on the Internet, ranging from free speech to privacy protection. However, for every positive aspect of anonymity, there is a negative aspect as well – it can be used for spamming, harassment, and other criminal activities. This paper examines the role of anonymity in online communications. It describes the different levels available, the positive and negative aspects of anonymous communications, and presents a policy framework for controlling its use.

## Introduction

Everyday, millions of people participate in various forms of online communications: chats, email, virtual classrooms and newsgroups. Each person has a user name, and by participating, becomes part of a community. Whether online or face-to-face, each community has rules that the members are expected to abide by, or face retribution from the other members. However, unlike the face-to-face world, the online world allows users to create new identities, where users can separate themselves from their physical identities, and present a new persona. This artificial persona is no longer linked to the physical persona, and allows the user new freedoms in the virtual world.

Lazar and Preece [10] indicate that people may not be comfortable in speaking out, due to possible retribution from the other members of the community. They illustrate this point with several examples, including an online sport community where any member posting criticism of a specific company would find that their posts were deleted; a forum where new teachers were uncomfortable posting their true feelings and thoughts since their supervisors could read the posts and possibly effect their future assignments; and a company forum where employees feared losing their jobs if they were to openly criticize their managers.

While the Internet can provide new opportunities for anonymous dialogue in the area of free speech: political discourse, whistle-blowing, providing information to news media; this anonymity can also allow unacceptable and criminal activities: spam, phishing, and harassment; because it is difficult to hold users accountable for their actions.

## Types of Anonymity

Kling, Lee, Teich, and Frankel [9] identify two major forms of anonymity: Pseudonymous and Anonymous. In pseudonymous communications, the user establishes a pen name representing their true identity. While we do not know who sent the message unless they decide to reveal themselves, we can respond to them via the pen name they have established. These can be set up easily via the hundreds of free email systems such as Hotmail, Gmail, and Yahoo.

It seems as if most Internet emails fall into this category of pseudo-anonymity. When many users sign up for an Internet account, they often find that someone else is already using *their* name, especially if it is a common name, and they then have to resort to using a nickname, or a pseudonymous representation. While their intention is not to hide their identity, and they often reveal their true name in the signature of their messages, this screen name doesn't reflect their true identity.

In anonymous communications, Kling, Lee, Teich, and Frankel [9] indicates that user establishes an account with an anonymous remailer, a communication system that strips out any information of the originator's true address, and forwards the message on to the intended recipient. While in a pseudonymous remailer system the recipient can respond to the originator's address, in an anonymous remailer, no records are kept of the original sender, and therefore, no reply is possible.

While it is possible for law enforcement to intervene and force the owners of the anonymous remailer to reveal their system logs, this is often difficult since the remailer is often located in a different country and outside the reach of local law enforcement. From a technical aspect, while it may be possible to trace an email through one remailer, it becomes almost impossible if the sender decides to employ multiple remailers in multiple countries [9].

## **Positive Aspects of Anonymity in Online Communications**

Whether pursuing self-help for embarrassing personal problems, reporting on corporate corruption (Whistleblowing), avoiding persecution for expressing unpopular ideas, or just wanting to maintain their personal privacy, there are many legitimate reasons why people prefer to cover themselves in the cloak of anonymity provided by the Internet.

In an online classroom setting, Chester and Gwynne [3] found that their students participated more, and were able to develop a stronger and more confident voice online than in the classroom. Foreign students were able to participate more since they were not inhibited by their verbal skill or societal norms. Bell [1] also found that anonymous online role-playing was an effective learning process and increased the participant's involvement and comfort level. By removing the emotional risk and potential criticism, participants were freer to express themselves.

VanSoest, Canon and Grant [14] found that in discussing sensitive social issues, such as racism, anonymous communications allowed students to express themselves without fear of retribution. During the online sessions, there was a lot of discussion about white guilt, homosexuality, whites are racist, racism among minorities, institutionalized racism, and reverse racism. One gay student even disclosed his sexual orientation during the session. There was even a meta-discussion on how difficult it was to discuss these issues without offending others. While over half of the students surveyed indicated that they were comfortable discussing sensitive issues in class, they overwhelmingly appreciated the ability of making anonymous comments online. Some students even expressed a preference to online discussion as they were concerned that the "forum hindered their classroom participation because they were afraid that they would reveal their anonymity on the Web." [14]

Huffacker [7] indicates that the physical person is separated from their body via a virtual identity, this is similar to Jung's concept of a public *mask*. While online the user can choose a new name, either reflecting their offline persona, or reflecting that they wish to become. With programs such as The Sims, a person can even create not only a new identity but also a new body to inhabit.

Reingold [11] reinforces these concepts. While online, other users cannot view our physical characteristics. They do not know if we are fat, thin, tall, short, or have any physical handicaps or other characteristics that make it difficult to interact within a physical group. By using pseudonyms, participants can no longer determine ethnic origins or detect any accents in a voice. The recipients of the messages must focus on the ideas expressed in the messages, not the messenger. In short, when people participate online using some degree of anonymity, the "virtual communities treat them as they always wanted to be treated - as thinkers and transmitters of ideas and feeling beings" [11].

## **Negative Aspects of Anonymity in Online Communications**

While there are numerous reasons to encourage anonymous online communications, there seems to be even more reasons to discourage its use [3, 6, 9]. While many of these papers indicate that anonymous communication has its advantages, they also provide a long list of problems associated with its use. Spamming, phishing, deception, hate mail, impersonation and misrepresentation, online financial fraud, bad behavior, harassment, swearing, and other illegal activities, are just a sampling of some of the problems associated with anonymous communications.

According to Sipior, Ward, and Bonner [12], unsolicited bulk email now accounts for approximately 60% of all email. All this spam has had an impact on the users: Over 50% have less trust in email, and 25% use email less frequently. False email identities increase the possibility that spam will be able to bypass all the filters and get to the user. Many spammers make use of free email services, and by forging email information, the senders can conceal their identities.

The other major fraud that is currently taking place online is phishing. It is estimated that these anonymous attacks have cost consumers between \$500 million and \$2.4 billion. There has been a rise of these attacks during the past few months, with some users indicating they have received at least one message a week. These email messages appear to be from the consumer's bank or credit card agency and request the user to log into the site via a link in the email message. That link takes them to a hacker's site, where their personal information is captured and passed on to the criminals [4].

Davis [6] believes that anonymity and the resulting deindividuation can lead to a more pronounced anti-social behavior in online communications. Anonymous users experience diminished social presence, and do not recognize other users as *real*. Combined with the fact that they are unlikely to ever meet the other users in a physical environment, their actions have little consequences. If ostracized or rejected by the group, an anonymous user can simply change identities, and re-enter the community with a new persona, and not have to deal with the backlash aimed at the abandoned identity.

This inappropriate behavior can cause problems within the communities. Bertera and Littlefield [2] expressed concerns that if users were not held responsible for their comments, the fundamental social controls will break down, which will result in more aggressive or malicious behavior, and defeat the purpose of the forum. Davis [6] reports that 56.1% of survey respondents indicated that they avoided online environments where other users acted inappropriately, and that 79.3% had left an online environment for the same reasons. Some of the inappropriate behavior included users making inappropriate sexual comments, swearing, and harassment. Davis attributes anonymity, combined with a lack of accountability as two of the primary causes of inappropriate behavior, and recommends that online environments make an effort to strengthen the sense of community and social presence by using online profiles, and reputation systems.

A user's 'reputation' is an important consideration when deciding whether or not to interact with them online. A peer-based reputation system [8] is one of the techniques employed at online auction sites, such as Ebay, where user profiles are linked to a seller's pseudonym address. Each user has a profile consisting of information as to when the user account was created, the number of transactions the user has made, as both a buyer and a seller, and access to a feedback mechanism where other users can rate their transactions. A buyer on Ebay can examine all of this information, and make a decision as to whether they trust the seller, as represented by their online pseudonym.

Bertera and Littlefield [2] indicate that being identified in an online forum discussion appears to have several advantages, including higher perceived learning, improved relationships, and most perhaps most importantly, a greater appearance of honesty than those who remained anonymous.

## **Establishing Policies for the Use of Anonymity**

Teich, Frankel, Kling and Lee [13], believe that anonymous communication on the Internet is an important and valuable feature, if properly used. They have put forth a policy framework for dealing with anonymous communications.

1. Anonymous communication online is morally neutral. No technology is ever good or evil. Guns can be used to protect as well as destroy. Peer-to-peer, while used for music piracy, can also be used for information sharing. Anonymous communication is just a tool, which can be used to allow freedom of expression, or harm to others. Policies should be put in place to discourage the harmful uses, while encouraging the productive ones.
2. Anonymous communication should be regarded as a strong human right; in the United States it is also a constitutional right. Just as freedom of speech allows people to say what they want, it doesn't require anybody to listen to what they are saying. Users can choose to ignore anonymous communications.
3. Online communities should be allowed to set their own policies regarding the use of anonymous communication. Just as cities, counties, states, and countries have their own laws, online communities can establish their own laws on the use of anonymous communications. It is then up to the individuals of that community to decide if they want to participate under those rules. According to Lazar and Preece [10] we

can influence people's behavior by establishing the community's purpose, the participant's roles, and establishing community standards.

4. Individuals should be informed about the extent to which their identity is disclosed online. When an individual chooses to participate in an online service, it should be made clear to them the policies regarding anonymity, privacy, and confidentiality. They also need to be informed before those policies change.

Not everyone agrees with this policy framework. Davenport [5] argues that anonymity is not only destroying the Internet, but is also causing serious problems within the legal system. He believes that the first two policies: that online anonymous communications is morally neutral, and that it is a human and constitutional right; are fundamentally flawed. He believes that "the price of our freedoms is not, I believe, anonymity, but accountability. Unless individuals and, more importantly, governments can be held accountable, we lose all recourse to the law and hence risk our very freedom" [5].

## Conclusion

Anonymous communications is simply another tool that can be used for either good or evil. Just like in modern society, there is a time and a place for anonymous communications. As we can see from the flood of spam, phishing attacks, and other scams on the Internet, perhaps widespread anonymity is inappropriate and potentially harmful. But within certain settings, on a smaller scale, anonymity can actually facilitate discussions, and allow people to express their ideas and feelings without fear of retribution.

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# **Students' Evaluation on Personnel (Lecturer and Administrative Staff) In Evaluating Private Colleges in Malaysia**

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## **Abstract**

The objectives of this study are firstly, to determine students' perception on the important qualities of personnel (lecturer and administrative staff) in their evaluation of alternative private colleges in Malaysia. Secondly, students' perceived influence of the evaluation criteria used to assess their choice of private college in Malaysia. Thirdly, the relationship between students perceived importance of personnel and evaluation criteria for selection of private colleges were ascertained. Data were solicited from 808 newly enrolled students in 72 multi-disciplined private colleges in Malaysia via the Simple Random Sampling method. The research uncovered that qualities of a lecturer deemed important to students in their evaluation process are lecturer knowledge of the subject matter, skilful lecture delivery and good time management. Administrative staff on the other hand should be knowledgeable in their job, helpful to students and polite to students.

## **Introduction: Contemporary Status of Private Higher Education in Malaysia**

In Malaysia the system of higher education comprises of the public and private higher education (Tan, 2002). A key characteristic separates the private higher educational institutions from its public counterpart. The private higher educational institutions are privately funded for profit. No funds, grants or endowments are channeled to them by the government or private organizations. Henceforth their primary source of revenue stems from shareholders funds, student fees and business activities related to the education business. Nevertheless despite of their financial independence private higher educational institutions are strongly encouraged to adopt the curriculum prescribed by the Ministry of Education (Soon, 1999).

The 1990's represented an era of rapid development for the Malaysian private higher education industry. This was evident with the growth in number of institutions, variety of courses offered and course structure adhered. According to Hassan (2003) as cited by Rohana, to date there are approximately 706 registered private higher educational institutions in Malaysia. There are also an estimated 40,000 students and 50,000 teaching staffs attached to private higher educational institutions in 1998 (Ministry of Education, 2001). In addition, private colleges too offer different categories of study namely:

- a) Internal award at certificate and diploma levels. The local private colleges would develop the curriculum and forward them for approval to the Ministry of Education/National Accreditation Board.
- b) Provides tuition for external professional examination. Key emphasis is to conduct the respective professional programs and prepare students for the respective external examination such as MACPA (Malaysia), ACCA (U.K.), ICSA (U.K.), CIM (U.K.) and TOEFL (U.S.A.).
- c) Bachelors, Masters and Doctorate of Philosophy awards. Conducts courses leading to the abovementioned degrees via collaborative efforts with local and foreign universities. Common modes of partnership are Split Degree Arrangements (Twinning, Credit Transfer and Advance Standing Program), Entire Degree Arrangement (External Program, Distance Learning and Franchised: 3+0, 4+0) Shamsul (2001), Kamaruzzaman and Kelch (1999).

To complement this wide range of study qualifications, private colleges conducts studies in numerous disciplines such as accounting, business and commerce, economics, technical/vocational, engineering, creative studies, performing arts, law, medicine tourism, IT/Multimedia and computer studies, fashion design, architectural and building studies and secretarial science. In short, the presence of hundreds of private higher educational

institutions, offering a variety of program structures, in a multitude of disciplines has undoubtedly contributed to heighten competition within the industry.

### **Importance of Private Higher Education in Malaysia**

The erection and development of private higher educational institutions has gained good support from the Malaysian government. Their presence has enabled the vacuum left by the public institutions of higher learning to be filled-up (see Table 1).

TABLE 1: TOTAL STUDENT ENROLLMENT

Higher Institution	Number of Students
i. Public higher educational institution	143,971
ii. Private higher educational institution	203,381

Source: Ministry of Education, Education Quarterly, September 2003

Other reasons supporting their presence in the Malaysian higher education system are:

- a) To complement the effort of the public sector in churning out highly skilled and trained professionals. This would aid the nation’s effort to develop knowledge-based workers deemed critical for the attainment of Vision 2020.
- b) To contribute towards the development of the Malaysian economy. It is hope that as the private higher education sector evolves and excels, it would be able to woo foreign students, thus contributing to the economy via foreign exchange. According to Hassan as cited by Izwar (2003) the number of foreign students, have shown a marked increase of 23,400 in 2002 to 36,466 in 2003 (an increase of 77.73%). Among the countries with significant student enrollment are China (11,050), Indonesia (7,503), India (1,409), Thailand (1,369) and Singapore (1,296).
- c) To minimize the outflow of foreign exchange resulting from a large number of Malaysian students pursuing higher education abroad. It is estimated that there are about 60,000 Malaysians studying abroad and this has resulted in an outflow of funds amounting to RM2.5 – RM3 billion annually (www.edu.usm.my).
- d) To promote Malaysia as a center for educational excellence in this region, at par with Singapore and Australia. With the manpower, physical and financial resources available, this intention can certainly materialize.

### **Challenges of the External Marketing Environmental Forces to Private Colleges in Malaysia**

The Malaysian private higher educational institutions as prescribed by the Private Higher Education Act 1996 includes private colleges, private university and university colleges, foreign university branch campus and distance learning centers (Soon, 1999). Over a span of 70 years (since its inception in 1930’s) private colleges have mushroomed in Malaysia (Disney and Adlan, 2000). These numbers are relatively big and there is always a chance of it getting bigger. The real issue here is not about their numbers alone but would these institutions, particularly private colleges have an optimum student enrolment to operate profitably? Based on the estimated 160 active private colleges, 12 private universities, 4 foreign university branch campuses with distance learning centers, and the available total market potentials of 350,000-400,000 students, it can be inferred that the market potentials of private colleges is rather limited. This concurs with claims by Gilbert as cited by Zalina (2003), that there is an estimated 20% decline in student’s enrollments across the board among private colleges. This would be especially true for the smaller private colleges whose student number ranges between 400-500 students (Zalina, 2003). Hence, private colleges would have to identify a sustainable basis to compete with private universities, foreign university branch campuses, distance learning centers and overseas institution for their share of market.

Besides the stiff competition, several statutes govern the conduct of private higher education operators. They are the Education Act 1996, Private of Higher Education Institution Act 1996, National Accreditation Board (LAN) Act 1996, University and University Colleges (Amendment) Act 1996, National Higher Education Fund Corporation Act 1997 (Disney and Adlan, 2000). These statutes were enacted with the intention of liberalizing the government's education policy to promote growth and quality education by the private sector.

The Department of Private Higher Education has taken serious measures to enforce the Private of Higher Education Act 1996. This is evident by the number of private institution of higher learning being served with closure notices, their license revoked, show cause letter's issued and directive to cease the offering of certain programs. Between November 2002 and January 2003, 171 private higher educational institutions (PHEI) were directed to stop their operation (Rohana, 2003). Because of this, the number of PHEI's were reduced from 706 to 535 (Rohana 2003). Similarly, in April 2003, another 7 PHEI's were directed to close down their operation because they were operating without the approval of the Department of Private of Higher Education. An additional 10 PHEI's were directed to stop offering courses, which have not been granted approval (Izwar, 2003). The National Accreditation Board on the other hand has played an active role in the accreditation of programs offered by private colleges. According to Abdul Aziz as cited by (Rohana 2003) in March 2003, 72 PHEI's were awarded accreditation for 317 programs offered. In addition according to Hassan as cited by Rohana (2003) each accreditation from the LAN is valid only for a period of 5 years. As such private colleges must apply for their renewal upon expiry.

Private colleges advertising efforts too need to adhere to the advertising guidelines as specified in Section 75 of the 555 Act (Rohana, 2003). Non-compliance would liable a private college to a RM50,000 compound or six months of imprisonment. The enforcement here has been strict lately because of incidences of private colleges misrepresenting the public by using the Ministry of Education and National Accreditation Board logo in their advertisement. In fact last year the Department of Private Higher Education issued 128 notices to private higher institutions for breaching this Act.

There is also realization among private colleges that education has taken on a new meaning with the development of information technology and systems. As a consequence private colleges have widely adopted information and communication technology such as technology infrastructure, network and systems use, course development, administrative system, E-planet and etcetera. Private colleges especially the big leagues have started to experiment with numerous technological applications such as computer power and applications of 'smart' products, teaching and learning technology and efficient methods of distributing education through E-Learning.

To sum, it can be postulated that the competitive, legal and technological environment has posed private colleges with greater competition. With this competitive environment and heighten sophistication of consumers, private colleges are increasingly faced with greater demands to deliver quality. Quality is judged by the standard of service and this makes the role of employees (personnel) in the service organization critical to maintain quality standards. The inseparable nature of service too has resulted in the personnel element being part of the service package. The personnel element encompasses not only the service personnel but also the role of other people namely, customers who are part of the service delivery process. This is particularly true with education where students are an important part of the service, since they must participate in the learning process. As such it is essential that the learning process is effective. In Malaysia, the education policy is aimed at developing the potentials of individuals in a holistic and integrated manner so as to produce individuals who are intellectual, spiritually, emotionally and physically balanced as well as harmonious (Johari Mat, 2000). To adhere to this policy, college lecturers must be a subject matter expert, acquire a new repertoire of teaching skills, help others learn what they know and be responsible for students learning and outcomes (Kennedy, 1999). However in the Malaysian private colleges the main function of a lecturer is predominantly to teach (Mahdzan, 1999). As a result of this, it is questionable as to how much of the other roles they are able to assume. This situation is made worse as private colleges too are faced with a shortage of qualified lecturers with the right kind of experience (Najib, 1999). Moreover in education, where the degree of intangibility is high, employees such as lecturers, administrators, technical support and maintenance staff plays an important role in their interaction with customers to deliver the service (Doherty, 1997). In view of this it is important that quality in education is preserved by ensuring that

lecturers prepare and plan their lectures as well as effectively deliver them (Entwistle, 2001). Students too expect lecturers to be punctual, presentable, sensitive and nurturing when providing feedback (Blaskie, 2001).

Consequently, customers would evaluate the service personnel's contact skills such as courtesy, attitude, helpfulness, appearance, availability and timeliness as important determinants of service quality in higher educational institutions (Oldfield and Baron, 2000). This is evident as they determine the quality of service rendered. Such skills are essential for service personnel because customers perception of quality are, often influenced directly by the action of the service personnel, which in turn results in a level of satisfaction or dissatisfaction. In fact, the unmatched service attitude of the service organization, especially among its front line personnel is its real source of competitive advantage. As such, the role played by employees is critical since they would influence consumer's perception of service quality, which in turn affects an organization's productivity, quality and success.

Such requirements would have a direct impact on the recruitment, training and ongoing mentoring of employees, particularly service personnel. Training, authority and management support is highly essential to ensure that their important but yet brief encounters with customers would result in a satisfactory outcome. This is because personnel would constitute a key Input to the education system as depicted in the diagram below as adapted from Yin and Wai (1997) legitimacy model of education quality (Figure 2). This model holds the view that educational institutions would be able to survive in a competitive environment only if they are able to offer high education quality. This is true of the private higher education industry in Malaysia specifically private colleges. With the increase in parental participation on choice of private college and heighten accountability among the key stakeholders in education, management of private colleges would have to undertake the needful measures to deliver education quality.

### **Personnel Strategy and Their Influence on Students Evaluation of Alternative Private Colleges in Malaysia**

Numerous consumer behavior models both simple and comprehensive (Simmons, 2000; Rice, 1997, 1993; Loudon and Bitta, 1993 and Schiffman and Kanuk, 1990) have advocated the influence of marketing factors on the various stages of consumer decision making for the purchase of goods. However with some minor modifications of the purchase process to include (Pre-purchase, Service Encounter and Post-purchase; Lovelock, 2002; Lovelock and Wright, 1999) the models can be extended to include the purchase of services. Marketing strategies for services would encompass seven key elements; service product, promotion, placing, pricing, personnel, process and physical evidence/servicescape (Kotler, 2000; Rust, Zahorik and Keningham ,1996; Payne and Ballantyre, 1991 and Booms and Bitner, 1981).

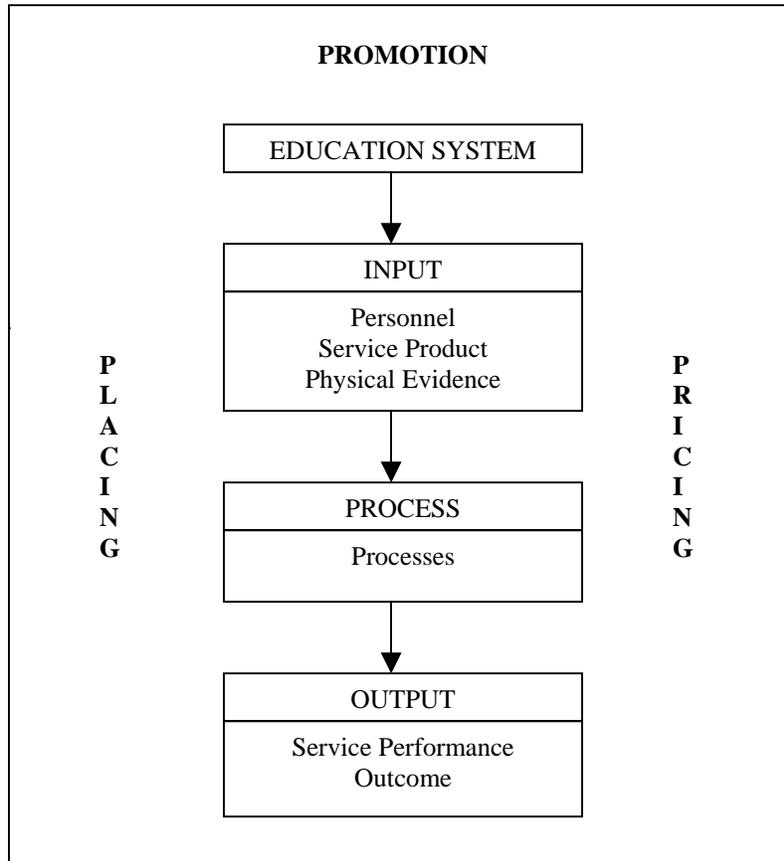


FIG. 2: INPUT, PROCESS AND OUTPUT FOR THE EDUCATION SYSTEM COMPLEMENTED BY MARKETING ACTIVITIES

Source: Yin, C.C. and Wai, M.T. (1997), Multi-models of Quality in Education, Quality Assurance in Education, Vol.5 No.1, p 22-31

At the evaluation stage of the decision making process consumers would use a set of evaluative criteria that have been identified through information search to determine which alternative would solve their problem or help them attain their desired state. Evaluative criteria are the dimensions utilized to judge the merits of competing options (Solomon, 1999). These evaluative criteria constitutes product/service features that are essential to consumers as they deliver benefits they seek (Govoni, Eng and Calper, 1986). They include quality of curriculum/program, teaching staff, administrative staff, location, facilities, efficiency of processes and price (Aldridge and Rowley, 1998; Connelly, 1997; Joseph and Joseph, 1997 and Hill, 1995). However these criteria have been established in empirical studies carried out in the West. Therefore it is still unclear if prospective foreign students seeking to pursue private higher education in Malaysia are adhering to the same criteria.

### Research Objectives

The objectives of the research are to ascertain:

- a. Qualities of personnel (lecturer) students perceive as important in influencing their decision making process to select a private college.

- b. The relationship between students perceived importance of qualities of personnel (administrator) and evaluation of alternative private colleges.
- c. Evaluation criteria students perceived as influential in making their choice of private college.

## Hypotheses

- Ho There is no significant relationship between a private college's personnel strategy (marketing activity) and evaluation criteria of alternative private colleges.
- Ha There is a significant relationship between a private college's personnel strategy (marketing activity) and evaluation criteria of alternative private colleges.

## The Questionnaire

The unit of analysis for this study is newly enrolled students at private colleges. They were asked on the qualities they perceived as important on two categories of personnel namely private college's lecturers and administrators to their evaluation activity of alternative private colleges. Their perceived influence of a list of evaluative criteria was also solicited. Questionnaires were distributed to the multi-discipline private colleges through the drop-off method. The researchers personally delivered and collected the questionnaires from the respective colleges. This has enabled the researcher to explain the purpose of this research to the respective colleges so as to elicit their cooperation.

The questionnaire comprised of two main sections. The first section addressed the background data such as gender, age, level of program and country of origin. The second section requested the respondents to indicate their perceived importance of numerous qualities of a lecturer and administrative staff during their evaluation process of the education services rendered by private colleges. In addition respondents too were asked on their perceived influence of selected evaluation criteria on their choice of private college. Their perceptions were indicated on a scale of 1 (low) to 7 (high) and 0 if an item is not applicable. Values of 1 to 2 were considered as low levels of importance (personnel)/ influence (evaluation criteria), 3-5 as moderate level of importance (personnel)/ influence (evaluation criteria) and 6-7 as high levels of importance (personnel)/ influence (evaluation criteria). Descriptive statistics was initially performed on the quality items of lecturers and administrative staff. This was followed by the inter-item correlation to establish if these quality items are related. Lastly the score of each quality item was indexed to obtain a composite score for the personnel and evaluation variable. The Pearson correlation was executed between the personnel variable (independent) and evaluation criteria (dependent) to test the constructed hypothesis. However, prior to hypothesis testing the data was treated to a Cronbach Alpha reliability test to determine the reliability of the data. The Cronbach Alpha value obtained for personnel (0.8717) and evaluation criteria (0.8241). The values obtained are above the minimum requirement of 0.6, thus indicating satisfactory internal consistency reliability.

## The Sample

Private colleges would be defined as the population for private institutions of higher learning in Malaysia. This research included 72 (60%) multi-discipline private colleges in Malaysia from a total 120. The colleges were selected via the Simple Random Sampling method based the list of multi discipline private colleges enlisted in Wencom's Higher Education Guide, 3<sup>rd</sup> edition. The ultimate inclusion of the colleges was subjected to their consent to participate in the research. Newly enrolled students (up to one month) were selected from each private college via Simple Random Sampling method. However not all the questionnaires were returned. The researchers are of the opinion that newly enrolled students would be more objective in indicating which global marketing attribute were important to them as they have just gone through the purchase process while minimizing the influence of their current college environment.

## Sample Characteristics

Out of the 1440 questionnaires distributed 822 (57%) were returned. An additional fourteen were rejected as there were numerous missing values, thus resulting in the actual number of response to be 808 (56%). Twenty eight% were to be enrolled in diploma programs, 58% for undergraduate programs and 14% for masters program. The 22-25 age groups made up the largest group of respondents with 62%. This was followed by 18% for the 17-21 age group and 12% for the 22-30 age group. The remaining 8% were above the age of 30. 36% of the foreign students were from China, 28% Indonesia, 14% Maldives, 7% Thailand 8% India, 4% Pakistan and 3% others.

## Analysis and Findings: Quality of Personnel (Lecturers and Administrative Staff) at Private Colleges and Evaluation Criteria Influencing Students' Choice of Private College

Lecturer's quality was operationalized with the use of six items. They include knowledgeable on subject matter, skilful lecture delivery, positive attitude towards teaching, care for students, good time management and punctuality. Five hundred and fifty students (68.1%) perceived that it is extremely important for lecturers to be knowledgeable of the subject matter at hand. In addition 535 students (66.2%) and 442 students (54.7%) perceived that extremely important attributes of a quality lecturer is their skilful lecture delivery and positive attitude towards teaching respectively (Table 2).

TABLE 2: FREQUENCY FOR STUDENTS' PERCEIVED IMPORTANCE OF LECTURER'S QUALITY AT PRIVATE COLLEGES

Scale/ Lecturer's quality	0	1	2	3	4	5	6	7	n=808
Knowledgeable of subject matter. (%)	12 1.5	5 .6	2 .2	18 2.2	38 4.7	62 7.7	121 15.0	550 68.1	M=6.31 SD=1.334 V=1.778
Skilful lecture delivery (%)	9 1.1	2 .2	10 1.2	15 1.9	39 4.8	53 6.6	145 17.9	535 66.2	M=6.32 SD=1.285 V=1.651
Positive attitude towards teaching (%)	14 1.7	6 .7	10 1.2	31 3.8	53 6.6	98 12.1	154 19.1	442 54.7	M=5.44 SD=1.748 V=3.057
Care for students (%)	3.3 4.1	7 .9	21 2.6	36 4.5	81 10.0	123 15.2	253 31.3	254 31.4	M=5.44 SD=1.748 V=3.057
Good time management (%)	25 3.1	6 .7	27 3.3	46 5.7	14 1.7	71 8.8	157 19.4	46 62 57.2	M=5.92 SD=1.753 V=3.073
Punctuality (%)	8 1.0	4 .5	29 3.6	24 3.0	43 5.3	132 16.3	146 18.1	422 52.2	M=5.94 SD=1.490 V=2.219

Note: 0 – Not Applicable; 1 – Not Important; 7 – Extremely Important

Knowledgeable lecturers, skilful lecture delivery and lecturers positive attitude towards teaching are well supported with literature from Entwistle (2001), Blaskie (2001) and Kennedy (1999). As lecturers constitute a key resource input to the education process such traits are deemed critical to develop the potentials of individuals in a

holistic and integrated fashion. Only then educational institutions would be able to produce students who are intellectually, spiritually, emotionally and physically balanced as well as harmonious (Johari Mat, 2000).

In table 3 positive correlations were obtained for all the six items representing lecturer's quality at private colleges via Pearson correlation. High correlation was seen between lecturer's knowledge on subject matter and skilful lecture delivery (0.714). In addition modest correlation was registered for skilful lecture delivery and lecturer's positive attitude towards teaching (0.683), positive attitude towards teaching and good time management (.677).

TABLE 3: CORRELATION FOR PERSONNEL (LECTURERS) OF PRIVATE COLLEGES

	Knowledgeable	Skillful delivery	Positive attitude	Students well-being	Good time management	Punctuality
Knowledgeable	1					
Skillful delivery	.714**	1				
Positive Attitude	.631**	.683**	1			
Students well-being	.495**	.459**	.503**	1		
Good time management	.628**	.595**	.677**	.624**	1	
Punctuality	.516**	.606**	.560**	.306**	.529**	1

\*\* Pearson correlation is significant at 0.01 levels (2-tailed)

The six items included to explain the quality of administrative staff are knowledgeable about job, prompt service, disseminates accurate information, helpful to students, courteous to students and politeness to students. Four hundred and thirty four students (53.7%) perceived with extreme importance that administrative staff at private colleges should be knowledgeable about their job. To add 427 students (52.8%) perceived with similar importance that they should be helpful to students while 402 (49.8%) perceived that politeness to students is extremely important (Table 4). Being support staff the importance of administrative staff is undeniable. They perform numerous services for students ranging from administration and record, payment/collection, examination, counseling and alike (Doherty, 1997). As such it is important that these personnel are well versed of their duties and responsibilities and are equipped with the appropriate contact skills such as helpfulness, politeness and courteousness. Oldfield and Baron (2000) in his study on determinants of service quality in higher educational institutions identified similar contact skills to be crucial. Such skills are important, as they would influence customer's perception of quality that translates into their satisfaction or dissatisfaction.

TABLE 4: FREQUENCY FOR STUDENTS' PERCEIVED IMPORTANCE OF QUALITY OF PERSONNEL (ADMINISTRATIVE STAFF) AT PRIVATE COLLEGES

Scale	0	1	2	3	4	5	6	7	n=808
Quality of administrative staff.									
Knowledgeable about job (%)	17 2.1	20 2.5	13 1.6	32 4.0	57 7.1	115 14.2	120 14.9	434 53.7	M=5.82 SD=1.710 V=2.923
Prompt service (%)	10 1.2	5 .6	23 2.8	47 5.8	60 7.4	95 11.8	193 23.9	375 46.4	M=5.80 SD=1.556 V=2.423
Disseminate accurate information (%)	9 1.1	6 .7	4 .5	38 4.7	55 6.8	98 12.1	199 24.6	399 49.4	M=5.97 SD=1.406 V=1.978
Helpful to students (%)	11 1.1	39 4.8	19 2.4	31 3.8	34 4.2	108 13.4	139 17.2	427 52.8	M=5.78 SD=1.790 V=3.204
Courteous to students (%)	27 3.3	11 1.4	15 1.9	26 3.2	69 8.5	117 14.5	207 25.6	336 41.6	M=5.92 SD=1.507 V=2.271
Politeness to students (%)	8 1.0	2 .2	32 4.0	38 4.7	38 4.7	92 11.4	196 24.3	402 49.8	M=5.66 SD=1.709 V=2.921

Note: 0 – Not Applicable; 1 – Not Important; 7 – Extremely Important

In Table 5, Pearson correlation on the above mentioned six items attained positive correlation with high correlation observed between the administrative staff delivery of prompt service and ability to disseminate accurate information (0.783). Additionally moderate correlation exist between the administrative staff being knowledgeable about their job and ability to disseminate accurate information (0.632) and administrative staff disseminating accurate information and being helpful to students (0.621).

TABLE 5: CORRELATION FOR PERSONNEL (ADMINISTRATIVE STAFF) OF PRIVATE COLLEGES

	Knowledgeable job	Prompt service	Accurate information	Helpful to students	Courteous to students	Polite to students
Knowledgeable job	1					
Prompt service	.558**	1				
Accurate information	.632**	.783**	1			
Helpful to students	.561**	.590**	.621**	1		
Courteous to students	.597**	.555**	.588*	.585**	1	
Polite to students	.315**	.484**	.444**	.410**	.529**	1

\*\* Pearson correlation is significant at 0.01 level (2-tailed)

Literature has indicated that students' evaluations of the alternative higher educational institutions are often based on one or more criteria. Basing on this, students evaluating private colleges in Malaysia are given a number of

criteria such as program quality, lecturer’s quality, administrative staff efficiency, up-to-date facilities, price and simple processes to reflect their perceived influence on the choice of private college they select. In Table 6, three criteria were distinctively perceived to have strong influence on the student’s evaluation of private colleges. They are program quality (50.7%), lecturer’s quality (38.1%) and price (36.1%). These three key evaluation criteria which have strongly influenced students perception of private colleges concurs with findings established by Alridge and Rowley (1998), Connelly (1997), Joseph and Joseph (1997) and Hill (1995).

TABLE 6: FREQUENCY FOR STUDENTS’ PERCEIVED INFLUENCE OF EVALUATION CRITERIA ON THEIR DECISION-MAKING PROCESS TO CHOOSE A PRIVATE COLLEGE.

Scale	0	1	2	3	4	5	6	7	n=808
Evaluation Criteria									
a. Program quality (%)		10 1.2	45 5.6	30 3.7	69 8.5	134 16.6	110 13.6	410 50.7	M=5.77 SD=1.582 V=2.502
b. Lecturer’s quality (%)		10 1.2	30 3.7	10 1.2	133 16.5	102 12.6	215 26.6	308 38.1	M=5.68 SD=1.442 V=2.080
c. Administrative staff efficiency (%)		20 2.5	59 7.3	60 7.4	85 10.5	221 27.4	278 34.4	85 10.5	M=4.98 SD=1.491 V=2.223
d. Location (%)		30 3.7	20 2.5	93 11.5	44 11.5	169 20.9	201 20.9	251 31.1	M=5.36 SD=1.642 V=2.695
e. Up-to-date facilities (%)		10 1.2	29 3.6	77 9.5	94 11.6	183 22.6	219 27.1	196 24.3	M=5.29 SD=1.476 V=2.177
f. Price (%)	5 .6	15 1.9	36 4.5	73 9.0	82 10.1	145 17.9	160 19.8	292 36.1	M=5.40 SD=1.674 V=2.803
g. Simple processes (%)		5 .6	29 3.6	62 7.7	204 25.2	173 21.4	162 20.0	173 21.4	M=5.09 SD=1.426 V=2.033

Note: 0 – Not Applicable; 1 – Weak Influence; 7 – Strong Influence

In Table 7, Pearson correlation performed on all the seven evaluation criteria displayed positive correlation. High correlation was obtained for quality program with quality lecturer (.768), quality program with location (.702) and up-to-date facilities with price (.712).

TABLE 7: CORRELATION FOR EVALUATION CRITERIA INFLUENCING STUDENTS' SELECTION OF PRIVATE COLLEGE

	Quality program 1	Quality lecturer	Admin staff	Location	Update facilities	Price	Simple process
Quality program	1						
Quality lecturer	.768**	1					
Admin staff	.639**	.616**	1				
Location	.702**	.685**	.605**	1			
Update facilities	.619**	.447**	.524**	.586**	1		
Price	.517**	.287**	.253**	.493**	.712**	1	
Simple process	.471**	.503**	.577**	.489**	.643**	.510**	1

\*\* Pearson correlation is significant at 0.01 level (2-tailed).

Based on the earlier literature and model on input, process and output for the education system complemented by marketing activities by Yin and Wai (1997), the hypothesis testing between the personnel (marketing activity) and evaluation criteria was conducted. Marketing strategies/ activities for services would encompass seven key elements; service product, promotion, placing, pricing, personnel, process and physical evidence/servicescape. In Table 8, Pearson correlation between the aggregated personnel strategy (marketing activity) and evaluation criteria displayed the highest moderate significant correlation (0.400). This suggests that the null hypothesis of no significant relationship between personnel and evaluation criteria of private colleges would be rejected at 5% level of significance.

TABLE 8: RELATIONSHIP BETWEEN MARKETING ACTIVITIES AND EVALUATION CRITERIA OF PRIVATE COLLEGES

MARKETING ACTIVITIES	EVALUATION CRITERIA
Service product	0.058
Pricing	0.231**
Placing	0.298**
Performance outcome	0.177**
Promotion	0.183**
Personnel	0.400**
Process	0.381**
Physical Evidence	0.307**

\*\* Correlation is significant at the 0.01 level (2-tailed). 0.19 & < - very low correlation, 0.20-0.39 – low correlation, 0.40-0.69 – moderate correlation, 0.70-0.89 – high correlation, 0.90-1 – very high correlation (Cohen and Holiday, 1982).

## Conclusion

In terms of qualities of personnel (lecturers) students perceived as important in influencing their decision making process to select a private college, 550 (68.1%) perceived that it is extremely important for lecturers to be knowledgeable of the subject matter at hand. In addition 535 students (66.2%) and 442 students (54.7%) perceived that extremely important attributes of a quality lecturer is their skilful lecture delivery and positive attitude towards teaching respectively (Table 2). Knowledgeable lecturers, skilful lecture delivery and lecturers positive attitude towards teaching are well supported with literature from Entwistle (2001), Blaskie (2001) and Kennedy (1999). As

lecturers constitute a key resource input to the education process such traits are deemed critical to develop the potentials of individuals in a holistic and integrated fashion. Only then educational institutions would be able to produce students who are intellectually, spiritually, emotionally and physically balanced as well as harmonious (Johari Mat, 2000).

The relationship between students perceived importance of qualities of personnel (administrator) and evaluation of alternative private colleges are concluded as follows. Four hundred and thirty four students (53.7%) perceived with extreme importance that administrative staff at private colleges should be knowledgeable about their job. To add 427 students (52.8%) perceived with similar importance that they should be helpful to students while 402 (49.8%) perceived that politeness to students is extremely important (Table 4). Being a support staff the importance of administrative staff is undeniable. They perform numerous services for students ranging from administration and record, payment/collection, examination, counseling and alike (Doherty, 1997). As such it is important that these personnel are well versed of their duties and responsibilities and are equipped with the appropriate contact skills such as helpfulness, politeness and courteousness. Oldfield and Baron (2000) in his study on determinants of service quality in higher educational institutions identified similar contact skills to be crucial. Such skills are important, as they would influence customer's perception of quality that translates into their satisfaction or dissatisfaction.

In Table 6, three criteria were distinctively perceived to have strong influence on the student's evaluation in making their choice of private colleges. They are program quality (50.7%), lecturer's quality (38.1%) and price (36.1%). These three key evaluation criteria which have strongly influenced students perception of private colleges concurs with findings established by Aldridge and Rowley (1998), Connelly (1997), Joseph and Joseph (1997) and Hill (1995).

The results support the hypothesis that there is a significant relationship between the aggregated personnel strategy (marketing activity) and evaluation criteria students' use in arriving at their choice of private college to enroll with. This concurs with literature from Simmons, 2000; Rice, 1997, 1993; Loudon and Bitta, 1993, Schiffman and Kanuk, 1990, thus, implying that consumers of private colleges in Malaysia are aware of the significant contribution of personnel to their education process. As such the personnel factor was given due consideration during their evaluation process. This is to ensure that the core resource to their education process is being well-managed as it is a significant determinant of their total development upon graduation.

It is recommended that other critical issues of late on personnel strategy and other marketing services such as on counseling, counter services, research lecturers versus teaching lecturers should be further research as the customers (students, parents and stakeholders) are becoming more demanding and educated. The above results may also differ with different level of programs, age category, mode of study and/or discipline of students.

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SECTION 7  
NEW DEVELOPMENTS IN INTERNATIONAL TRADE

2005

# Barriers to China-US Textiles and Clothing Trade in the Post-Quota Period and Chinese Tactics

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## Abstract

The year of 2005 indicates the coming of the post-quota period in the trade of textiles and clothing, which will lead a virtual change in China-US textile and clothing trade. The paper would try to find out this virtual change on the basis of analyzing the opportunities and the new barriers from the U.S. for China's export. The analysis shows that the prospects of China's textile and clothing export to the U.S. in the post-quota period may not be as optimistic as expected, because various kinds of potential barriers would emerge though the quota is eliminated. It argues that the barriers are against the spirit of free trade that is advocated by WTO and it will also bring down the welfare for both countries. At the last part of the paper, it tries to pose some tactics for China's textile and clothing exports.

## Analysis on the change of China-U.S Textile and Clothing Trade in the 3 Years After China's Accession to the WTO

China is one of the largest textile and clothing export countries in the world. And the textile and clothing industry is one of the pillar industries in China, which depends on the advantages of the unique natural resources and the labor-force resources to take up a high share in the world market. The U.S is the main textile and clothing import country. Therefore whether China-U.S textile and clothing trade can go well will bring large influence on China's exports. As the large amount of China-U.S textile and clothing trade, the frictions will also be more than that of other kinds of products. And two important events happened in the 21-century –China's accession to the WTO and the elimination of quotas in the textile and clothing trade- will bring a new situation to China-U.S textile and clothing trade.

### Analysis on the Change of the Amount of China-U.S Textile and Clothing Trade in the 3 Years After China's Accession

China's accession to WTO in 2001 brings many new chances for foreign trade, the same as the textile and clothing industry. It also means that the U.S should comply with the rules of ATC<sup>1</sup> that is to eliminate gradually the quotas for importing China's textile and clothing. According to the timetable of ATC, the U.S should give China's exports an increase of 25% calculated on the basis of the original quotas after China's accession, while in 2002<sup>2</sup> it should eliminate the quotas on some products such as baby clothing, knit cloth, gloves, trousers, overcoats, outer clothing and so on. It should eliminate all the quotas before Jan 1, 2005.

ATC brings the new vigor into China-U.S textile and clothing trade. Table 1 shows that on the turning point of 2001, the amount of both China and the U.S exports has increased to a great extent, especially for China's exports that broke \$100 billions in 2003. In order to illustrate the problem clearly, Fig. 1 using the year of 2001 as the based period calculates the index on the change of China-U.S textile and clothing trade. It shows that the amount of the U.S imports from China appears a trend of growth. But the trend of rise before China's accession appears gentler than that of the next 3 years. During the period from 1995-2001, there came into a small upsurge and the average rate of increase reached to 17.34%, but the average rate of other years was not more than 6%. However the average rate after 2001 reaches to 36.35%. At the same time, the amount of the U.S exports to China also appears a trend of continuous rise. But its increase is more stable than that of the U.S imports from China, except a little descent in 1996. That reflects that though the amount of trade itself has a gradually increased process, the U.S textile and clothing imports from China has a quick rate of increase after China's accession. It also means that the U.S textile and clothing imports from China have entered into an unprecedented upsurge.

On another side, Fig. 1 also shows that the U.S has always been in trade deficit in China-U.S textile and clothing trade. And the trade deficit enlarges very quickly. The year of 2001 also becomes the point of demarcation. Except a little descent in 1999 and 2001, the enlarging trend appears gentler than that after 2001. It suggests that the

U.S. trade deficit on textile and clothing has also entered into an upsurge. And the reason mostly comes from the imports of China's products.

TABLE 1: CHINA-U.S. TEXTILES AND CLOTHING TRADE: 1999-2004.1-11  
(In thousands of dollars)

Year	The U.S. Imports from China	The U.S. Exports to China	The U.S. Trade Balance
1995	4,800,131	62,981	-4,737,150
1996	4,889,640	53,238	-4,836,402
1997	6,023,518	67,200	-5,956,318
1998	5,900,389	72,318	-5,828,071
1999	6,128,820	81,886	-6,046,934
2000	6,527,482	112,617	-6,414,865
2001	6,536,315	136,981	-6,399,334
2002	8,744,041	172,132	-8,571,909
2003	11,608,828	225,185	-11,383,643
2003.1-11	10,679,275	203,322	-10,475,953
2004.1-11	13,496,041	250,838	-13,245,203

Source: calculated on the date from U.S. Department of Commerce, Office of Textiles and Apparel

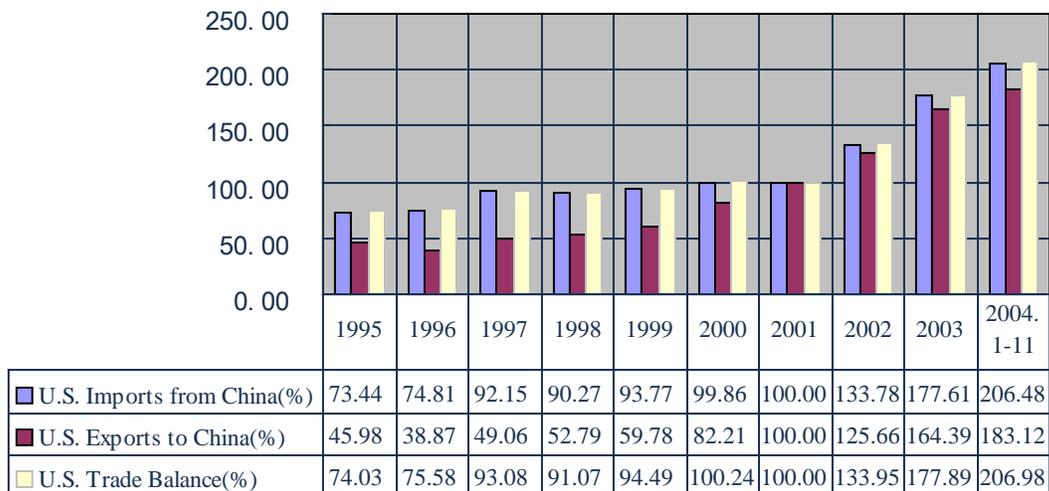


FIG. 1: INDEX ON THE CHANGE OF CHINA-U.S. TEXTILES AND CLOTHING TRADE

Source: calculated on the basis of Table 1

#### Analysis on the Change of China Textile and Clothing Share in the U.S. Market

China textile and clothing share in the U.S. market changes as the import from China forms an upsurge. Fig. 2 chooses 4 countries and areas whose amount of exports in the U.S market list at the top. They are China, ASEAN<sup>3</sup>, CBI<sup>4</sup> and Mexico. China's share reached 14.27% and replaced Mexico to take up the first place in 2002. Fig. 2 shows that China's share enlarges by 3% every year and appears a trend of growth. However the share of ASEAN, who takes up the second place, goes up slowly and appears a little descent in 2004, while the share of CBI, who takes up the third place, appears a clearly descent. And the share of Mexico, who once took up the first place during 1998-2001, descends below 10%. Regarding to the above analysis, as a result of China's accession and the elimination of the quotas for some products, the cost of the quotas disappears and the competitive force of China'

products improves, and China's exports increase quickly while the share of other countries and areas experiences a descent.

The analysis can be concluded as follows:

In the first 3 years after China's accession to the WTO, Chinese textile and clothing exports to the U.S increase quickly as well as China's share in the U.S market, while the share of the original main export countries appears descent. One thing that should be mentioned here is that the above analysis is on the basis of the statistics from the U.S, therefore the data may be larger than that counted by China as the result of the different counting methods. However it can also beat the alarm bell for Chinese enterprises. It's inevitable that the situation of Chinese products will attract more attention from the U.S. government and textile industry. There still exists the serious potential worry about the growth of the frictions. At the same time, the elimination of quotas will also lead to the contradiction among the countries that were restricted by the quotas before. And the next part will go step further to talk about the barriers.

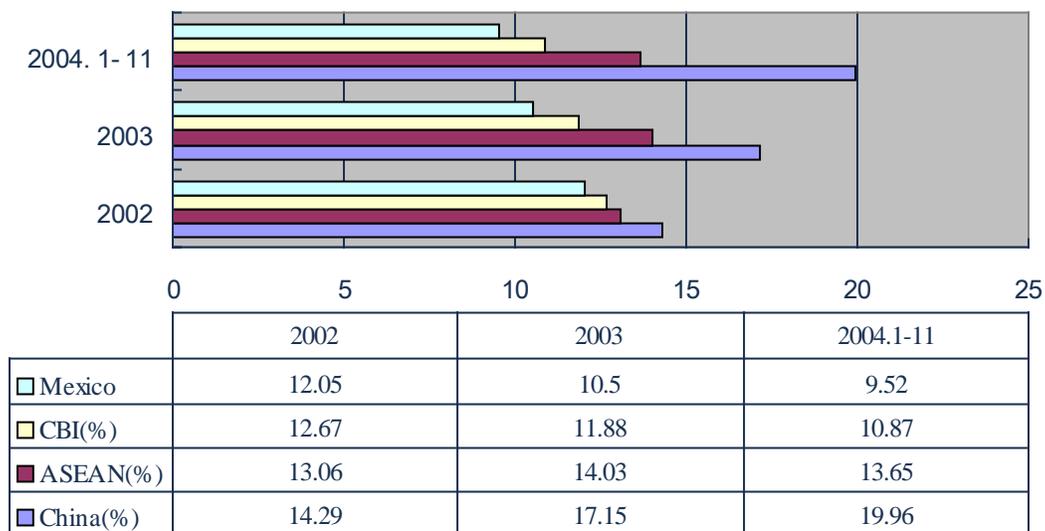


FIG. 2: INDEX ON THE CHANGE ON THE SHARE OF THE MAIN EXPORTS COUNTRIES  
Source: calculated on the data from U.S. Department of Commerce, Office of Textiles and Apparel

## Barriers to China-U.S. Textile and Clothing Trade in the Post-Quota Period and the Trend

The first part reveals that there exists the potential worry about the growth of the frictions, which implies that the textile and clothing trade is not absolutely free, and that China will still face various kinds of barriers. With regard to the referring documentary and materials, the potential barriers can be divided into 3 types.

### Barriers Based on WTO Rules

In order to protect the relevant industry in the textile and clothing import industry, WTO drafts some rules with the purpose of promoting the fair trade. However these rules often become the tools of protectionism. This type existing in China-U.S. trade usually includes Anti-dumping, VER<sup>5</sup>, Specific Safeguard Measure and General Safeguard Measure. These rules are used frequently as in the frame of the WTO. The U.S government also drafts the detailed relevant national trade acts to carry out these rules.

Anti-dumping Act of 1974 is the most perfect and detailed national anti-dumping act in the world. The number of cases that the U.S. has carried out to China is more than 80 and one of the main objectives is for China's textile and apparel products. The U.S. hasn't admitted that China is a market economy country. It usually used the price of a third country as the standard of the judgment in the process of the adjudication. In that case, it may

influence the fairness of the adjudication. Further to say, no matter which party wins, each phrase of the implementation, from investigation, register to lawsuit and judgment, would make the answer party spend much time and energy. Once the case is adjudicate to dumping, the defendant will be levied the countervailing duties, which sometimes would be very high. That will restrict the imports from China indirectly.

The quantitative restriction mainly includes VER, Specific Safeguard Measure and General Safeguard Measure. In China-U.S. Agreement, China promises to fulfill the obligations of reducing the textile and clothing exports to the U.S. beginning at 2005. At the same time it had another 12 years of General Safeguard Measure. And in China Accession Packages, China has a promissory of Specific Safeguard Measure that textile and clothing import countries can restrict the imports from China for 1 year before Jan.1, 2009 if there exists some evidences that China's products damage the relevant industry in the import countries. The U.S. producers can also put forward the application of import relief according to Trade Act of 1974. The implementation of the quantitative restriction is easier than that of Anti-dumping as its conditions are simpler and it just requires a shorter time while the effect is better because it can restrict the quantity directly. Especially for the Specific Safeguard Measure, if China and the U.S. can not reach the agreement in 90 days, the U.S. can still restricts the imports from China by itself. During 2003-2004, the U.S. has launched 2 cases of Specific Safeguard Measure for China's textile and clothing imports. Therefore the quantitative restrictions are also used frequently in the post-quota period.

#### **Various Kinds of Technical Barriers**

In the post-quota period, the technical barriers will also become the main barriers as its intrinsic concealment. The U.S. has various kinds of technical standards including Security, Health, Environmental Protection and so on. For example, the textile and clothing without the composition approved by FTC<sup>6</sup> rules would not be allowed to enter into the U.S. market. The recent standard, SA8000, stresses to defend the rights of the laborers in the enterprises, referring to not allowing using child laborers, compelling work and punishing measures, requiring to keep health and safe in the work environment...These technical barriers act directly on the increase of the cost which would lead to offset the advantages of China products and then reduce the imports from China.

#### **Regional Trade Barriers**

NAFTA<sup>7</sup>, which went into effect in 1994 and took the U.S. as the core, uses the method of advancing gradually to enlarge the preferential conditions to its member countries. This free zone brings a large trade transferable effect to its member countries. The effect in the textile and clothing trade is to import more products from the member countries instead of the other countries, which produced a large influence on China's exports. Take Mexico for example, before 1998, China's share took up the first place in the U.S. market. However Mexico overcame China to the first place in 1998 and kept its position until 2002 with the help of preferential conditions from NAFTA. Therefore it exists a large possibility that the U.S. would carry out the regional barriers if it wants to protect its relevant industry. In fact, the U.S. has sign the free trade agreement with Mexico and Tunisia, both of which are the textile and clothing countries. It suggests that the U.S. would consider carrying out the regional trade barriers. Although regional barriers refer to multilateral cooperation and it's difficult to coordinate the interest for all the parties, its threat is still larger than that of the former types.

Table 2 can summarize the above analysis. It can draw the conclusion that in post-quota period, non-tariff barriers will become the main means and its general purpose is to restrict the imports from China. The regional barriers are the greatest threat but have difficulties in the implementation, therefore Barriers Based on WTO Rules and Technical Barriers would be used more frequently in recent years.



TABLE 3: THE CONTRAST OF THE QUANTITY AND PRICE AROUND THE IMPLEMENTATION OF THE SPECIFIC SAFEGUARD MEASURE IN 2003

Category	The Imports from China			Pw (\$)		Pc (\$)	
	Qa	Qb	Qb/ Qa*100%	Pw0	Pw1	Pc0	Pc1
222(kg)	8,852,890	11,303,454	127.68%	5.65	5.51	4.46	4.37
349(dozens)	3,859,883	2,835,128	73.45%	24.69	23.77	22.56	21.56
350(dozens)	2,468,173	3,231,229	130.92%	49.50	46.78	41.59	40.90
649(dozens)	11,498,518	14,696,372	127.811%	36.46	37.16	27.60	25.90
650(dozens)	1,094,777	1,862,838	170.16%	58.61	55.30	59.84	54.24

Source: calculated on the basis of the data from U.S. Department of Commerce, Office of Textiles and Apparel

And secondly, it is to discuss the change of the prices. Table 3 shows the amount of the restricted products one year before the restriction from November, 2002 to October, 2003 to divide the quantity of that and the average price of one year before the restriction, taking 'P0' to represent it. And uses the amount from November, 2003 to October, 2004 to divide the quantity of that and gets the average price in the restricted year, taking 'P1' to represent it. It also takes 'Pw' to represent the average price of the imports from all over the world, while takes 'Pc' to represent the average price of the imports from China. The result shows that except the category 647, the average prices of the imports from all over the world descend to the different extent after the restriction and the highest margin of the descent reached to \$7.91. Therefore it can be considered that  $Pw1 < Pw2$ . Then as for the average prices of the imports from China, except he category 650, they are lower than that of the imports from all over the world, which is  $Pc < Pw$ . And after the restriction the average prices experienced the descent, which is  $Pc1 < Pc0$  and the highest margin of the descent reached to \$5.60. So it's obvious that the price after the restriction went down but not went up. That is to say the purpose of bringing up the price still didn't come true.

The above analysis shows that the forecasted purpose of the restriction in Nov.17, 2003 hasn't come true, which means the U.S. producers haven't or have just got a little gain from the restriction. The restriction can only increase the damage from distorting the trade and bring down the efficiency. To some degree, the result reflects the barriers to trade are unworthy. Barriers bring not only the damage to the export country that encounters the barriers, but also the descent of the welfare of the consumers in the import country while the degree of the protection for the local producers is very limited. Therefore, to abandon the barriers to trade, promote the free trade and return to the spirit of the WTO may be the best choice.

## China's Tactics

### The Fundamental Strategy is to Accelerate the Restructuring in Textile Industry

Now we mainly rely on the negotiations to resist these barriers. But this measure can only resolve the overwhelming urgency. If China's textile industry doesn't try to search the fundamental methods on the basis of self-examination, the negotiations will be meaningless and form such a situation: one friction has been just solved while another complaint arises. Therefore, China's textile industry should consider the causes of the complaints and accelerate the restructuring.

### Restructuring Should be Established on the Basis of Developing the Comparative Advantages

An unarguable fact is that China has a large number of abundant and low-priced labor forces. In 1999 IMF calculated the payment of manufacturing industries in some countries and areas from Asia and had a conclusion that the lowest average wages were paid in the mainland of China, which brought a overwhelming advantage in the aspect of the cost. Five years latter, this advantage is challenged by many new factors: some countries and areas from Asia and Caribbean also have abundant labor force resources; the economic development in China leads to an increase in payment. However the cost of labor forces in China will still have its comparative advantage in the long run as the result of the long-term policy of deflation in currency which brings a low rate of inflation, and at the same time China's supply market of labor forces just meets an unprecedented peak period. Some researches show that the average cost per operator hour, including social benefits, in spinning and weaving in 2002 was \$0.69 in the coastal

areas of China, compared with \$6.15 in Hong Kong, \$5.73 in Korea, and \$7.15 in Taiwan.<sup>8</sup> This advantage attracts more and more multinational corporations to invest in China. So China's textile industry should also take the advantage of resources and develop the comparative advantage in the aspect of the cost of labor forces. Therefore restructuring in textile industry doesn't mean to cast aside the original advantage, but to restructure on the basis of developing it.

#### **The Key of Restructuring is to Change Comparative Advantages into Competitive Advantages**

A typical characteristic of China's textile industry is to rely on the abundant and cheap labor force, which is purely depended on the endowment of natural resources. However the endowment of natural resources is of static, which is not enough to form competitive advantages. Competitive advantages include not only the price but also the factors of brand, quality, technology, culture and so on. These factors are the key ones deciding whether a product would survive or not. But nowadays the success of Chinese enterprises just purely relies on cheap price gaining little benefit and easily causing the trade frictions. So Chinese enterprises should put the key of resources on transferring comparative advantages to competitive advantages.

#### **Chinese Government's Tactics**

Although the key to solve the problem is the restructuring of China's textile industry, it also requires Chinese government's efforts to cope with the trade frictions.

#### **Negotiate Positively to Coordinate the Difference in the Method of Statistics between China and the U.S.**

It is one of the important factors that the trade deficit between China and the U.S leads to the friction in textiles. It's true that there exists the trade deficit, but the gap that is estimated by the U.S government is much larger than that estimated by Chinese government. It's the difference in the method of statistic that leads the U.S government to seriously overestimate the trade deficit, and then leads to the surficial unbalance in interests. Therefore it requires Chinese government to negotiate with the U.S government positively in order to coordinate the rules of statistic. But it is easier to say than do. The Chinese government and trade delegations have been negotiating positively with the U.S. government but the result is not so optimistic. There are mainly two handicaps: one is that the U.S. hasn't admitted that China is a marketing economic country and doubts the truthfulness of China's method of statistics and data, the other is that China's data lack of transparency and the supervisory system and the public is difficult to find the detail data. Therefore Chinese government should negotiate with American government and fight for the widely approval of China's marketing economic position in the international society with demonstration and revolution, besides Chinese government should public the data in time to make it transparent.

#### **China should carry out the Promissory of the WTO Accession Package**

It is clear that the friction in the textile and clothing trade is just one part of China-U.S. trade frictions because China's accession brings up the trade frictions for China as well as the increase in the amount of trade. It is certain that China, as a great trade state, would attract more attention from other partners. At the same time, the large trade deficit every year also brings a great pressure for American government, who should also face the pressure from its local groups calling for some effective measures to Chinese exports. The dispute in the field of textile and clothing is just the epitome of this pressure. In that case each relative group would focus on whether China can carry out the promissory of the WTO Accession Package. If Chinese government can execute that, it will bring more trade chances for China instead of frictions. On the contrary, if Chinese government cannot, it would not only bring down the trade chances, the more serious thing is to cause a large influence on China's whole economy.

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### **End Notes**

1. The Agreement on Textiles and Clothing, under the ATC, bilateral quotas under the MFA will be enlarged in three stages and fully integrated by January 2005.
2. The last stage of ATC, the growth rates will be raised by 27 percent.
3. Association of Southeast Asian Nations
4. Caribbean Basin Initiative
5. Voluntary Export Restriction
6. Federal Trade Commission
7. North American Free Trade Agreement
8. Werner International Management Consultants, "Spinning and Weaving Labor Cost Comparisons 2002," Reston, VA.<sup>1</sup>
9. Committee for the Implementation of Textile Agreements

# **China-Thailand Business: The Increasing Internationalization of a Relationship**

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## **Abstract**

Although Chinese migrants have been living in what is now Thailand for hundreds and perhaps thousands of years, the level of economic exchange between the two countries remained limited. Migrants might have become involved in import and export and in trade with China and elsewhere, while others traded on their labor, yet businesses formed in Thailand did little to increase the level of interaction between the two countries. More recently, the institution of the Open Door policy and economic liberalization in China has made it much more possible for inward and outward investment into and out of that country. Further, the improvements in IT and related technology make it much more convenient to operate international business operations remotely. As a result, cross-border economic activities between the two countries have both deepened and widened. Chinese-Thai companies such as CP Foods have led the way in the internationalization of the Thai economy through expansion to China. These activities will be vital as the country searches for ways of creating better value added and branded products. Based on a program of qualitative and quantitative research, this paper investigates the changing nature of these interactions and highlights the economic impacts that they have had both in Thailand and China. The challenges and successes that organizations from both sides have faced are evaluated and lessons are drawn for management practice. The impact on labor markets will also be considered, with special reference to the Chiang Rai area of northern Thailand, where longstanding cultural contacts have developed into extensive Chinese investment in the region. Government policy options will be considered in both Thailand and China in the light of these findings.

## **Introduction**

China and Thailand are neighbours and have a long history of economic interactions, as well as political interaction and migration from north to south. However, lack of accurate historical data, for various reasons, means that much of this interaction is poorly understood and, where there is lack of understanding, there is a greater chance of inefficiencies and inequities. This paper seeks to spread some light on current Thai-Chinese business activities with the hope in part of reducing the possibilities for such inefficiencies. The focus is on the historical perspective of the interaction and the current nature of foreign direct investment by Chinese firms in Thailand, particularly in the northern region around Chiang Rai, as well as Thai investment in the southern Chinese province of Yunnan, which is the closest to Thailand in terms of both geographic and psychic distance.

This paper reports on work in progress concerning an ongoing research project dealing with the Globalization of the Thai Economy and Society. This project aims to provide immediately useful information both for academics and for practitioners.

In the next section, the historical perspective of Thai-Chinese economic interaction is discussed, together with current modes of border and riverine trade. This is followed by a discussion of the benefits and implications of hosting foreign direct investment and then evaluations of the prospects for investment within the two studied areas.

## **Historical Context**

The Chinese have been active in the Thai economy for many centuries. Their roles have been critical in leading development in various ways but this has in many cases made them unpopular and the potential victims of xenophobia, especially during times of economic downturn. The large Chinese community in Thailand has become one of the most integrated into an overseas society of all overseas Chinese communities. Many Chinese have intermarried with Thais and have taken Thai names. No political party has been formed specifically to represent

Chinese interests and, in recent years, Chinese have been assuming leading positions in many political parties (McCargo and Ukrist, 2005, p.4). This has represented something of a change from previous prominence in business but not state-level politics.

Chinese have been present in mainland Southeast Asia from probably around the C6<sup>th</sup> CE and individual travelers would have passed through even earlier. The Chinese diplomat Chou Ta-Kuan noted the presence of Chinese migrants in the Khmer empire at Angkor in the C13<sup>th</sup> and observed how they enjoyed the leisurely pace and ease of life (Chou Ta-Kuan, 1993, p.). The Chiang Mai Chronicle, among tales of Chinese bandits and invaders, also includes vignettes of Chinese living in Siam, as it then was, with mixed fortune. In the 1460s, for example, King Borommaracha hired a Chinese Muslim to poison some rivals, which ended badly for the would-be poisoner, who ended up being thrown into a river to die (Wyatt and Aroonrut, 1998, pp.100-1). Subsequently, after the burning of Ayutthaya by the Burmese in 1767, the founder of the Rattanakosin era, King Taksin, was the son of a Teochiu Chinese father. From the Ayutthayan period onwards, Chinese had been of central importance in regulating and conducting international trade. By accepting tributary status to China, Siam had enabled trade with the empire but still required Chinese traders to gain access to many otherwise-closed ports. Chinese officials administered Siamese international trade, to a large degree, and Chinese supervised the building of junks in Siam.

Under King Rama III, a new economic system was introduced to raise state revenues entailed Chinese being divided into two entrepreneurial groups, one of which involved tax farmers, who had the opportunity to run monopolies in opium houses, liquor shops and gambling dens. Tax farmers worked under a royal contract under which they were required to submit a portion of taxes collected from tenants to the crown. A second group consisted of merchants involved with mostly domestic trade and international trade too, to a lesser extent. European traders were obliged to rely on Chinese compradors to complete their trade activities. Chinese merchants in both groups took opportunities to move into the rice milling industry (Gambe, 1999, p.101). Chinese were awarded these privileges until the death of King Chulalongkorn (Rama V, the Great), after which they became subject to various forms of state and royal persecution as being considered to be exploiting their privileged positions.

The numerical dominance of the Teochiu Chinese has continued, with the largest proportion of Thai Chinese still originating in that region. Other Chinese derive from Hainan Island or are Fukien or Hakka dialogue speakers. Migration from China to Thailand topped 100,000 per year in early years of the twentieth century, with many being ship deck passengers aiming for the tin and rubber industries in the South of Thailand and others joining related Chinese-owned ventures in urban areas, mostly Bangkok.

Currently, Chinese cultural traits are declining in importance in Thai Chinese to only a limited extent and quite slowly. Younger generations are starting to think in terms of studying English rather than Chinese, for example. This has also affected the importance of Chinese connections in doing business, although these too retain significance. At the same time, prejudice against Sino-Thais from other Thais has been declining in vehemence and it is now inconceivable that laws promoting ethnic discrimination could be passed in the Kingdom. Some personal bigotry continues to be expressed but this too is lessening as understanding of the dangers and problems caused by racism infuses Thai society.

Sino-Thais in economic life are most commonly represented as rice millers and merchants and, while there is a basis of historical fact to this representation, it is now no longer accurate.

“Although until very recently Sino-Thai have been stereotyped as shopkeepers without an interest in manufacturing investment, we can often trace the roots of local industry in Thailand to modest beginnings by local Chinese a generation or two ago” (Ueda, 2000).

Diversification of interests together with efficient business practices and the use of personal network connections have enabled some Chinese to become leaders and managers of large and internationalized business concerns. Some of these concerns have undertaken activities of various sorts in China and others are set to do so in the future. The choice of China as a resource- or market-seeking location has been determined partly by geographical location, partly because of personal and network connections and partly by other considerations. However, not all Sino-Thai corporations have been uniformly successful. Many were implicated in bad practices during the 1997 financial crisis, especially with respect to substandard risk management policies (Brown, 2000).

## Mekong River and Border Trade

Historical patterns of both caravan trade and guanxi are evident in the border trade linking Thailand and China. This has occurred for centuries and frequently involves ethnic minority groups such as the Akha as intermediaries and instigators (Toyota, 2000). The large communities of Muslims in Yunnan province, many of whom derive from the large-scale importation of Muslim officials resulting from the Mongol conquest, also are influential in maintaining the ancient caravan routes from Kunming to Chiang Mai and elsewhere (Berlie, 2000).

Accurate figures for the border trade that occurs here are hard to obtain, not least because of the informal or unofficial nature of much of the activity. Most goods exchanged are low value-added manufactured items, which are then retailed in periodic markets throughout the area. However, this form of trade is now being supplemented and in some cases superseded by the large scale movement of Chinese fruit and vegetables made possible both by the signing of a free trade agreement between the two countries and the building of a new road through northern Laos that which has gone some way towards rectifying the problems with infrastructure linking together the nations of the region.

TABLE 1: BORDER TRADE IN YUNNAN, 1999-2000

Year	Total of imports and exports (RMB million)	Imports (RMB million)	Exports (RMB million)
1990	1,079	676	336
1995	1900	969	932
2000	2,949	2,302	647

Source: Yunnan Statistical Yearbook 2001 (in Chunkai and Zhilong, 2004, op.cit.)

The informal nature of much of the border trade has led to the presence of unofficial workers and to the association with crime of various sorts. Unregistered workers suffer from potential exploitation and the lack of access to government support services when needed. Indeed, those ethnic minority hilltribes people who wish to settle in Thailand have experienced great difficulty in obtaining official identity papers and, hence, have been subject to occasional harassment as well as being unable to obtain services. The problem with crime relates not just to the long-established smuggling of narcotics but the more recent creation of human trafficking networks, largely involving the provision of Chinese women into the sex trade in Thailand and further afield.

An additional issue to be considered is the environmental impact of the Mekong river trade. To enhance the amount of trade possible, Chinese authorities have been blasting upstream rapids to permit larger vessels to carry cargo. It is not clear exactly what impacts this will have downstream but it is unlikely to be beneficial to the many thousands of people who rely on the Mekong for sustenance and livelihood. Damming the river upstream, which is also under development, will also have negative impacts further downstream.

## The Role of Foreign Direct Investment in Promoting Regional Economic Development

Inward foreign direct investment (FDI) has long been accepted as an important possible tool for stimulating regional economic development. However, many states have evinced a reluctance to accept such FDI for fear of loss of economic sovereignty and the transfer of resources overseas. In the context of a history of colonial oppression, it is perfectly reasonable for many states with a long and bitter history of exploitation by overseas powers to be wary of permitting large-scale inward investment. To manage such investment, states have in some cases attempted to isolate or quarantine the effects of FDI by limiting it to specific areas, to specific industries or permitting it only to representatives of particular, privileged overseas states.

In China, for example, the well-known policy developed to a large extent by Jiang Zemin featured the identification of Special Economic Zones (SEZs) in coastal areas where overseas firms could establish commercial and production bases. By limiting zones spatially, it was believed that learning the required management and technical skills necessary to provide successful local economic development could be effected incrementally and

then transferred to other parts of the country. The areas selected to be part of SEZs were generally those with a history of international trade and with strong links between local people and overseas Chinese who could utilize guanxi links to promote co-operation (Chen, Chang and Yimin, 1995). Guanxi is a term implying a personal network connection uniting two or more people deriving from such sources as family membership, common origin in a village or membership of the same alumnus association. Although lessening in importance as western business methods become more prevalent, guanxi is still a significant part of business practice in China and throughout East Asia, since the network connection denotes a higher level of trust and hence lower transaction costs and therefore is considered to be an efficient business practice.

FDI promotes local economic development through such impacts as:

- Direct employment and upgrading of skills and income of local people. Some workers are subsequently able to establish their own enterprises as a result of skills learned and income earned;
- Spillover effects and externalities. These terms refer to the otherwise unanticipated effects of hosting FDI and are divided into the positive and the negative. Positive effects include the improvement in skills and professional attitude and ability acquired by workers in FDI ventures and in their suppliers and other partners. They also include the additional income generated in the area for third parties. Negative effects include maldevelopment effects associated with overseas ownership and migrant workers and the possibility that local industry will be strangled by the presence of more efficient overseas competitors, who will therefore be able to soak up all available investment and skilled scarce inputs;
- Changing the nature of traditional production patterns to utilize newly perceived competitive advantages or to use existing ones in new ways. Workers may be taken away from agricultural production to work in low-skilled and comparatively lowly-paid factories, for example or, else, are moved from the same agricultural production into more highly value adding production using the same inputs (prepared frozen chicken meals as opposed to unprocessed chicken).

In any case, it is important to bear in mind that government has a vital role to play in maximizing the benefits available from hosting FDI and minimizing the negative effects. The exact nature of government intervention continues to be a contested issue but one possible summation is as follows:

"... create and effectively communicate to their constituents a distinctive and challenging economic vision .... Ensure that the institutions responsible for translating that vision into reality are both willing and able to adjust to the changes required of them by a learning and innovation-driven economy ... ensure that the availability, quality and cost effectiveness of general purpose inputs match up to the standards of their global competitors ... create and sustain an institutional framework and ethos that facilitates a continuous upgrading of the resources and capabilities within its jurisdiction ... do everything to encourage and nothing to impede the formation of micro-regional cluster development (Dunning, 1997)."

The extent and nature of government policies to support FDI in Thailand and in Yunnan Province of China will be described in the next section.

## **FDI in Thailand**

Recognizing the historical importance of continuing trading links between northern Thailand and Yunnan province in China and other provinces, the Thai government has recently announced plans to upgrade the infrastructure in that area to promote further inward Chinese investment. Approximately 1.35 billion baht has been allocated to Chiang Rai province and some 256 million baht to neighboring Tak province (Supamart, 2005). Chinese businesspeople have already taken advantage of benefits flowing from the Thai-Chinese Free Trade Agreement to establish operations in the area, particularly near to the Mekong River at Chiang Saen. It is reported that a score or so of Chinese men have married local Thai women, with the main purpose of such marriages being to register businesses in the wives' names and thereby obtain a greater level of benefits (Subin and Thirawat, 2004). Thais are sending their children to school to learn to speak Mandarin to be able to become involved in this investment, which is largely focusing at present on the import and export of comparatively low value produce such as fruit and vegetables. An

influx of low cost Chinese vegetables and fruit has already required many Chiang Rai and other northern farmers to abandon their traditional agricultural patterns to search for more competitive goods.

This form of investment is useful for the local economy but there are opportunities for the government to upgrade the level and quality of further investment so as to help provide better employment opportunities for local people and more value-adding opportunities for local businesses. Chiang Rai and the north are among the poorer regions of Thailand, largely as a result of the lack of infrastructure and distance from large urban centers.

TABLE 2: WAGE RATES IN CHIANG RAI AND THAILAND

Region/Province	Minimum Wage per day (baht) <sup>1</sup>	Average daily wage (baht/day)	Average monthly wage (baht/month)	Average wage (baht/month)
Whole Kingdom	-	163.9	8,665.1	6,445.7
Bangkok	170	195.3	11,176.8	9,445.1
Northern Region	-	140.1	5,255.6	4,125.5
Chiang Rai	133	117.6	4,384.7	3,658.5

Source: Report on Analysis of Wages, Earnings and Working Hours 2002, Department of Labor Protection and Welfare, Ministry of Labor.

Local people have not greeted the arrival of the Chinese with unalloyed joy. In addition to concerns arising from the FTA, local people have voiced concerns that they may be frozen out of local business networks.

Plans are underway to create a second river port in Chiang Saen in the Golden Triangle region, the better to accommodate the 3,000 ships visiting from China. Plans to upgrade rail and road links (also including northern Myanmar [Burma]) are also underfoot. Tea plantations will be doubled in size while their will also be significant investments in high-technology production and facilities for a duty-free zone and commodities city (Gagliardi, 2004).

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BOX 1: BOARD OF INVESTMENT INCENTIVES FOR INVESTMENT IN THAILAND

The Kingdom of Thailand is divided into three zones for the purposes of inward investment. Zone 1 consists of the capital Bangkok and five surrounding provinces. Zone 2 consists of other provinces close to Bangkok in central Thailand, while Zone 3 consists of the remaining 58 provinces of the country, divided into two broad areas.

All provinces in Zone 3 receive the following incentives:

Exemption of import duty on machinery

Corporate income tax exemption for 8 years provided that a project with capital investment of 10 million baht or more (excluding cost of land and working capital) obtains ISO 9000 or similar international standard certification within 2 years from its start-up-date, otherwise the corporate income tax exemption will be reduced by 1 year

**Note: The total amount of corporate income tax holiday is capped at 100% of investment capital.**

Exemption of import duty exemption on raw or essential materials used in the manufacturing of export products for 5 years

In addition, Chiang Rai and other provinces in one of the two broad divisions within Zone 3 also receive the following incentives:

(1) A project located within industrial estates or promoted industrial zones is entitled to the following privileges:

(1.1) 50 per cent reduction of corporate income tax for 5 years after the exemption period;

(1.2) Double deduction from taxable income of transportation, electricity and water costs for 10 years from the date of first revenue derived from promoted activity;

(2) For a project located outside industrial estates or promoted industrial zones, a deduction can be made from net profit of 25 per cent of the project's infrastructure installation or construction cost for 10 years from the date of first sales, and net profit for one or more years of any year can be chosen for such deduction. The deduction is additional to normal depreciation.

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In addition to these formal incentives, the BOI also offers various benefits such as a one-stop service and assistance with work permit procedures and the like.

Source: BOI, Board of Investment Privileges by Location, downloaded from: [http://www.boi.go.th/english/about/boi\\_privileges\\_by\\_location.asp](http://www.boi.go.th/english/about/boi_privileges_by_location.asp)

FDI in Thailand has maintained a good level and was projected to increase at the end of 2004 into 2005. Investors still retain confidence in the Kingdom as one of the most stable and business-friendly in the region (see **Error! Reference source not found.**). However, a number of issues in the closing months of 2004 and beginning of 2005 will pose renewed threats to that stability and the perception of it. The recurrence of avian influenza ('bird flu') has raised further questions about the hygiene levels in much of Thai agro-industry, while the tsunami disaster followed by high profile subway and speedboat accidents have cast doubts about security. The continued violence and unrest in the South of Thailand as some separatists continue to make their unwelcome presence felt is also a potentially disruptive influence.

Nevertheless, the Board of Investment (BOI) continues to attempt to streamline its operations and to improve its list of inducements to potential foreign investors. Services now account for around 70% of all inward flows of investment and, as well as traditional sectors such as trading and financial services, business services, telecommunications and electricity are all showing more prominence (Chatrudee, 2004).

TABLE 3: INVESTMENT START-UPS IN THAILAND, 2003 AND 2004

		2003 (Jan-Nov)			2004 (Jan-Nov)	
	No.	Thai reg.	Foreign Reg.	No.	Thai reg.	Foreign reg.
Total Investment	228	22,699	13,818	256	30,767	16,024
Total Foreign Investment	145	13,858	13,763	160	4,741	15,977
100% Foreign Owned	57		2,599	68		5,045
Joint Venture Projects	88	13,858	11,164	92	4,741	10,932

Source: Foreign Registered Capital from Major Countries (Foreign Equity  $\geq 10\%$ ), BOI (2004), downloaded from: [http://www.boi.go.th/english/download/statistics\\_foreign\\_registered/22/FDIREG04NOV.pdf](http://www.boi.go.th/english/download/statistics_foreign_registered/22/FDIREG04NOV.pdf)

## FDI in Yunnan Province of China

Yunnan province occupies the southwestern part of China. It ranges from the mountainous Tibetan plateau through the plains areas around Kunming and Dali down to the semi-tropical region of the Xishuangbanna (Sip Song Pan Na). It is home to many of the ethnic minority peoples of China and, according to some scholars, is the original home of the Tai peoples who migrated south over a period of centuries to form the state of Siam. Certainly there are many ethnic Tais still living in Yunnan and the linguistic and cultural similarities are very apparent.

As a region, Yunnan has only been closely integrated into the Chinese state in comparatively modern times. Although it was incorporated within its bordering its entirety when the Mongol armies destroyed the Kingdom of Nanchao which had previously held sway there, it was not until the late years of the Qing dynasty before it really became bound closely to the centre. Partly as a result of this, economic development in Yunnan has lagged behind other regions and it has remained a largely agricultural society, together with industries extracting resources. However, during the economic reform period of China's history since 1978, Yunnan's growth and development have been rapid, if uneven and its GDP has been increasing at an average rate of some 9.9%.

There have been three stages of reform and growth since 1978. Firstly, from 1978-84, attention was focused on rural reform and the improvement of conditions in all forms of existing industry. This continued in the second phase from 1985-1991 but was also accompanied by great fluctuations in growth and inflation as rising incomes led to higher expenditures but with resource allocations still being conducted by central planning there were, inevitably, supply and demand mismatches. Since 1992, official permission of and encouragement for the marketisation of society has reduced the problems with supply-demand mismatches and, consequently, economic growth has followed a smoother trajectory (Chunkai and Zhilong, 2004).

Despite this growth, Yunnan has still found it difficult to attract much inward FDI. The continued low level of infrastructure in the province combined with the high transaction costs of dealing with the bureaucratic provincial authorities have tended to make it a low priority for potential investors. However, its large and productive agro-industries make it a possible target for Thai firms wishing to leverage their knowledge and skills in terms of large-scale agro-production, distribution and marketing.

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#### BOX 2: CASE STUDY: CPF: CHAROEN POKPHAND FOODS PLC

Charoen Pokphand Foods PLC (CPF) is one of the largest Thai companies. Its main activities involve a diversified range of agricultural food products, which are exported from Thailand. Over the last few years, overseas operations have been established, to take advantage of local assets and also to avoid problems with accusations of dumping and hygiene concerns within the Thai industry.

According to the 2003 annual report, 6% of total sales were accounted for by overseas operations, more than 80% of which resulted from a US broiler facility. The company was first established in 1978 and grew to be floated on the Stock Exchange of Thailand on 1987. The first international subsidiary to be created was Charoen Pokphand (USA) Inc, in 2000, with Aqua Beauty, Inc. created as a distribution arm for seafood products in the USA the following year.

Six subsidiaries were established in 2002, two of which were in mainland China: CP Aquaculture (Beihai) Co., Ltd., manufactures and distributes aquatic feed in China as well as operating aquaculture farms; while CP Food Product (Shanghai) Co. Ltd., operates Thai restaurants on the mainland. In 2003, CP Aquaculture (Hainan) Co., Ltd., was established to produce and distribute animal feed in China and other investments were made in India and Turkey, as well as Europe and the USA.

Thai management knowledge and technical can be applied to natural resources and market demand in China. The personal connections between CP managers and Chinese officials facilitate this connection.

Source: CPF Annual Report, 2003, downloaded from: <http://www.cpfoods.net/html/download/AR2003.zip>

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The Thai Prime Minister Thaksin Shinawatra has on many occasions expressed his belief in the importance of China for the future of the Thai economy and, indeed, in the economy of the region in the future. His company, Shin Corp, has arranged co-operative deals with the China Railway Communication Asia Pacific (CRC-AP) to work together with international telecommunications (McCargo and Ukrist, 2005, p.58). Subsequent agreements have led to Chinese firms taking a bigger ownership and leadership role in the Thai economy. Nevertheless, there is still great scope for further interdependence.

## Conclusion

Future research will shed light on the Chinese investments in the Chiang Rai region and issues of international business development resulting from that. This investment is very likely to have an impact on labor market issues and may necessitate some restructuring of the vocational education system to provide human resources more closely associated with the types of skills and competencies required by Chinese owned firms. At the same time, research

will also be conducted into the issue of Thai investment in China and, similarly, the issues and problems faced by Thai owned corporations in seeking to become established there.

This relationship between China and Thailand is a vital and dynamic one in a part of the world exhibiting long-term economic growth and understanding it better should provide many useful lessons for application elsewhere.

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## Development of Foreign Exchange Market in Slovakia

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### Abstract

This paper describes Slovak Foreign Exchange Market (Forex). As the conducted research found out, the market underwent significant development not only in term of volume but also the diversity of derivatives. They have a significant role in the process of the currency risk redistribution among market players with different objectives and attitudes towards risk. Further development of the market is however limited by the steps that Slovak government and National bank of Slovakia (NBS) take on the way towards European Monetary Union (EMU). In an appendix to the paper we applied modern techniques of time series analysis (regime - switching models) to the series of the exchange rates EUR/SKK in the period January 1993 – December 2004 that exhibits two dramatic changes of behaviour, the first one following a complete change of Slovak government coalition after the elections in 1998 (and subsequent substantial changes of monetary strategies of the Slovak National Bank) and the second one accompanying the country's accession to the European Union in 2004.

### Introduction

Slovak Forex market underwent significant development from the beginning of its existence in 1993. Rigorous measures of transactions and conversions of Slovak crown vs. Major currencies (i.e. USD, DEM, GBP) were step-by-step liberated together with the rules and direction of the monetary policy designed and executed by NBS. From rather strict USD and DEM (later EUR) currency basket to rather flexible management of Slovak crown (SKK) exchange rate vs. EUR that is in place these days. These changes (among others) gave an impulse to the financial market participants and they started to trade currency derivatives with SKK.

Slovak Forex market is very small in comparison to the market of other V4 countries (Poland, Czech Republic, Hungary) as we can see in table 1. This fact is derived from the size of the „real“ economy and amount of necessary conversions done by Slovak entities as well as from the demand of foreign investors and their “hunger” for financial assets denominated in Slovak crowns.

TABLE 1: DAILY VOLUME OF SPOT TRANSACTIONS ON FOREX MARKET IN V4 COUNTRIES

Country	Daily volume - Spot Transactions (in mil. USD)
Slovak Republic	153
Czech Republic	1000
Hungary	500
Poland	8000

Source: Monetary Survey of NBS and ČNB, BIS Forex Market Activity Data<sup>1</sup>

Despite the small size in comparison to its neighbors the growth of volume of derivatives transaction on Slovak Forex market in last five years was dynamic as we can see from the data in table 2. This growth is in our opinion driven by two significant factors. By the growth of foreign direct investments and growth of export capacity of the economy on one hand and by growing attractiveness of financial instruments denominated in Slovak crowns after the lift of credit rating of Slovakia to investment grade level on the other.

TABLE 2: DAILY ACTIVITY ON SLOVAK FOREX MARKET

	2004*	2003	2002	2001	2000
Total Number of Transactions	180	175	150	120	100
Total Volume (Spot, Forward and Swap Transactions in mil. USD)	1767	1540	920	420	282
Volume of Spot Transactions (in mil. USD)	153	136	117	59	45

Source: Monetary Survey of NBS<sup>11</sup>

**Shortcomings of the Market (Market Inefficiencies)**

While the trading of SKK derivatives grows over time driven by the factors mentioned above, there are nonetheless two significant issues that players on the market have to take into account. First, there is liquidity issue driven by the fact that the vast majority of SKK derivatives' volume is traded during European trading hours, while other V4 currencies are at least partially liquid also during New York trading hours as can be seen on Picture 1.

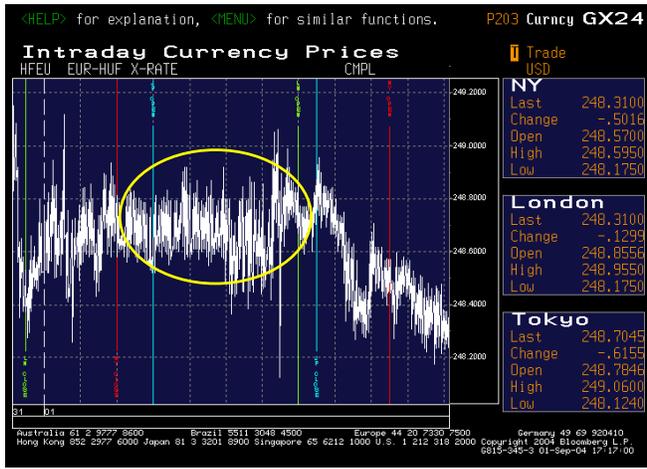
EUR/SKK



EUR/CZK



EUR/HUF



EUR/PLN



FIG. 1: 24 HOURS INTRA-DAY QUOTES OF V4 COUNTRIES' SPOT RATES

Secondly, SKK derivatives are not traded over different electronic platforms. Majority of simple spot transactions are traded over Reuters electronic trader and there is a possibility to trade SKK vs. other major currencies via EBS Trader system, while diverse crosses of other V4 currencies can be traded via various electronic platforms (i.e. Saxo Trader – web based platform of Danish Saxobank).

Third issue is small number of local market makers. Most Slovak banks play only the role of intermediaries, only some of the make market for spot, forward or swap transactions. (3 major local banks trade 90% of SPOT transactions' volume). While there is market for simple derivatives, the market for structures or exotic options is virtually non-existent. This means that there is no reliable benchmark for prices' quotations and creates opportunities for interbank players to execute arbitrage trades. Table 3 compares spreads on OTC at the money plain vanilla options' volatilities across the V4 countries. The size of implied volatility spread is almost 3 times higher on EUR/SKK volatility than on EUR/PLN implied volatility and it clearly shows how much inefficiency there is on the market.

TABLE 3: IMPLIED VOLATILITY OF THE PLAIN VANILLA AT-THE-MONEY OPTIONS<sup>iii</sup> EUR VS. V4 CURRENCIES

	EUR/PLN				EUR/CZK			
	bid	ask	ask-bid	(ask-bid)/ask	bid	ask	ask-bid	(ask-bid)/ask
1W	7,60	9,20	1,60	<b>17%</b>	4,55	5,95	1,40	24%
1M	8,35	9,15	0,80	<b>9%</b>	5,05	5,75	0,70	12%
2M	8,90	9,70	0,80	<b>8%</b>	5,25	5,95	0,70	12%
3M	9,25	10,00	0,75	<b>8%</b>	5,50	6,15	0,65	11%
6M	9,75	10,40	0,65	<b>6%</b>	5,70	6,25	0,55	9%
9M	9,95	10,55	0,60	6%	5,80	6,35	0,55	9%
1Y	10,05	10,65	0,60	6%	5,80	6,35	0,55	9%
	EUR/HUF				EUR/SKK			
	bid	ask	ask-bid	(ask-bid)/ask	bid	ask	ask-bid	(ask-bid)/ask
1W	6,00	8,00	2,00	25%	2,50	4,50	2,00	<b>44%</b>
1M	7,20	8,20	1,00	12%	3,60	4,60	1,00	<b>22%</b>
2M	7,75	8,75	1,00	11%	3,70	4,70	1,00	<b>21%</b>
3M	8,05	9,00	0,95	11%	4,05	5,00	0,95	<b>19%</b>
6M	8,85	9,65	0,80	8%	4,60	5,40	0,80	15%
9M	9,00	9,80	0,80	8%	4,75	5,55	0,80	14%
1Y	9,05	9,80	0,75	8%	4,85	5,60	0,75	13%

While there is clearly the chicken and egg question of whether there are no market makers for respective instrument because of no clients interest in trading it or there are no clients interested in using respective instrument for trading or hedging purposes because of no market makers, the following results of the research conducted in Slovak banks (intermediaries of derivatives trading and advisors to corporate clients) as well as in Slovak corporate sector (hedgers of currency risk) shows that SKK derivatives and their use already grab attention of diverse market participants and it is evolving, in our opinion in the right direction.

#### Supply of Forex Services

Slovak Forex market is organized as an interbank OTC market and is part of global OTC Forex market. Slovak banks (due to their size and activities of parent companies) play mostly the role of an intermediary for their corporate, institutional as well as individual clients. This means that (apart of some exceptions) they do not have significant currency risk exposure. Currently Slovak clients have an access to full scale of currency derivatives on so called major currencies (USD, EUR, JPY, GBP, CHF, AUD etc.) and the supply of currency derivatives on SKK is growing too. Spot, forward and swap transactions are standard operations as well as plain vanilla options and some more advance derivatives (binary or barrier options).

If required some of Slovak banks are able (via their parent companies' branches in London, Vienna or Milan) to provide their clients the possibility to trade structured derivative transactions. What one can observe across the whole Slovak market is growing activity of respective banks and their efforts to expand their services in this area.

The aim of the research conducted in Slovak commercial banks was to find out what is current scope of services in comparison to the services year ago. The research was conducted in the form of standardized questionnaire and responses were collected in August 2003 and 2004.

The Table 3 shows that results of the research strongly confirm positive development in the area of services provided by Slovak banks to their clients in the following areas:

- Market research and analysis reports provided to clients on regular (daily, weekly, monthly) basis
- Broader supply of various currency derivatives (binary, barrier options and various structures)
- Active search for possible client, communication and advisory services in the area of the currency risk management.

Above mentioned activities can be seen across the whole market not only among the biggest Slovak banks (Slovenská sporiteľňa a.s., VÚB a.s. a Tatra banka) and those historically focused on corporate clients on the Slovak market (ING Bank, Citibank Slovakia a.s). Moreover, in the first half of this year some banks introduced structured investment products that were constructed via SKK currency derivatives for retail clients that were given an opportunity to participate on attractive yields once the strategy the product followed went correctly while the loss (in case an investor was wrong) was limited to the accrued interest of the initial deposit. **Results of this qualitative research indicate that there are attractive opportunities on Forex market on such small markets as is the one in Slovakia.**

#### **Market Participants**

Apart of bank there are other financial intermediaries that provide Forex investment services to Slovak clients and they can also trade basic transactions via internet-based brokers or banks (i.e. Saxo Trader product of Danish Saxo Bank).

When considering clients active on Slovak Forex market, there are two strong and significant groups: hedgers - corporate clients who are trying to protect their extra cash flows and fixing the exchange rate of Slovak crown vs. other currencies (mostly EUR and USD) and financial investors (or speculators) – mostly international institutional investors who are entering the market in order to profit from the volatility or interest differential between SKK and other currencies, or both.

#### **Demand for SKK Derivatives**

There are two majors groups of SKK derivatives' users – hedgers and speculators, those who need to get rid of respective risk and those who are willing to undertake specific risk for some premium. As the demand for respective derivatives arises from hedgers, intermediaries are trying to match them with financial institutions in order to provide them with an opportunity to hedge their risks.

Due to the fact that Slovak economy is very small and open, majority of corporate sector is sensitive to currency risk in some way and it is assumed that the demand for investment services connected to the currency risk management is high. While this was not the case for some time in the past (due to development of the financial market) it is one of the important topics of recent period. Favorable development in Slovakia led to SKK appreciation and exporters face their revenues decline and costs rise in SKK terms.

In following lines we present results of the research focused on currency risk management and use of SKK derivatives in major non-financial Slovak companies presented. Results are based on data from 129 of 200 biggest companies in Slovakia in terms of revenues in the year 2003. Slovak Banks' Supply of Services in the Area of Currency Derivatives 2003, 2004

TABLE 4: SOURCE: AUTHORS' OWN RESEARCH 2003, 2004

	Market Analysis and Research		Spot Contracts		Forward contracts		Currency swaps		Plain vanilla options		Structured contracts*	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Slovenská sporiteľňa	A	A	A	A	A	A	A	A	A	A	N	A
Všeobecná úverová banka	A	A	A	A	A	A	A	A	A	A	A	A
Tatra banka	A	A	A	A	A	A	A	A	A	A	N	A
Československá obchodná banka	N	A	A	A	A	A	A	A	A	A	N	A
ING Bank	A	A	A	A	A	A	A	A	A	A	A	A
UniBanka	A	A	A	A	A	A	A	A	a	A	N	A
Ludová banka	A	A	A	A	A	A	A	A	A	A	N	A
Citibank (Slovakia)	N	N	A	A	A	A	A	A	A	A	A	A
HVB Bank Slovakia	A	A	A	A	A	A	A	A	A	A	N	N
Komerční banka Bratislava	N	N	A	A	A	A	A	A	N	A	N	N
Credit Lyonnais Bank Slovakia	N	N	A	A	A	A	A	A	N	A	N	N
Poštová banka <sup>11</sup>	A	A	A	A	A	A	A	A	N	N	N	N
Dexia banka Slovensko	N	N	A	A	A	A	A	A	N	a	N	N
Istrobanka	N	N	A	A	A	A	A	A	N	a	N	N
Banka Slovakia	N	N	A	A	A	A	A	A	N	N	N	N
OTP Banka Slovensko	N	N	A	A	A	A	A	A	N	N	N	N

**Explanatory Notes:**

- \* Binary Options, Barrier Options and Structured Strategies
- A The bank is providing respective service
- a The bank is in preparatory stage or considering providing of respective service
- N The bank is NOT providing respective service

### Value of Transaction in Other Currency than SKK

The need to focus attention of financial managers on currency risk issues is underlined by the fact that the share of transactions in foreign currencies is more than 50% of revenues value. There are significant differences in this ratio among different industries, the highest share of foreign currency transactions was in energy and metallurgy while the smallest in transport and construction industry.

EUR is the key foreign currency for more than 75% of companies followed by CZK and USD as shown in table 5. Data in the table do not take into account the volumes of transactions realized by respective companies it rather defines which currency is important for respective company.

TABLE 5: SHARE OF RESPECTIVE FOREIGN CURRENCY ON TRANSACTIONS

Foreign Currency	Share
EUR	75,9%
USD	6,9%
CZK	9,3%
Other Currencies	7,75%

Source: Authors' research

The share of EUR in volume terms is lower while the USD volume is higher than the abovementioned table suggests. It is driven by the fact that USD transactions in high volume are executed by small number of companies in respective sectors (energy, metallurgy).

### The Perception of Currency Risk

The perception of currency risk is not the same across the whole spectrum of companies. Following table underlines two significant patterns that seem to have an influence on this risk perception and management identified: i) size of the company and ii) share of foreign currency transactions on revenues.

TABLE 6: PERCEPTION OF CURRENCY RISK IN SLOVAK COMPANIES

Is the currency risk management an important issue for the company?	Yes	No
<b>All companies in the sample</b>	<b>79,8%</b>	<b>20,2%</b>
Top 20% biggest companies (by revenues)	87,6%	12,4%
Bottom 20% companies (by revenues)	69,2%	30,8%
Companies with the share of foreign currency transactions to turnover >50%	82,6%	17,4%
Companies with the share of foreign currency transactions to turnover <25%	64,2	35,8%

Despite the fact that managements of majority of companies claim that they perceive currency risk management as an important task, not all of them actually manage it. The research found that only two thirds of companies manage it directly or via the parent company/ within the group. Separate treasury divisions are domain of only a handful of biggest companies.

Of those companies that manage their currency risk financial manager executes respective transactions in more than 50% and surprisingly general manager is directly involved in hedging process in more than 13% of companies. This is driven by the responsibility and control mechanisms that are in place in respective companies. Positive finding is that in more than one third of companies, actively managing their currency risk exposure there are specialists who focus on this risk management and are trained by companies for that purpose.

## Derivatives in Use

While SPOT transactions are used by all companies (as they, in one or another way, use foreign currency) other instruments are not that much in use. Forward contracts (the simplest instruments for hedging future cash flows denominated in different currency) are used by less than 70% of companies and only about 27% of companies use plain vanilla currency option contracts.

Surprisingly, structured (and more sophisticated) contracts were used by 34% of companies. This confusing finding can be however explained by the fact that many companies used structured contracts in combination with money market products to profit from respective move of SKK vs. EUR or other currency (for example double no touch option in combination with deposit transaction, where the maximum potential loss is equal to the interest earned on underlined amount deposited).

Majority of transactions are executed with banks as counterparties, other financial institutions (brokers) are counterparty in only fraction of transactions. Apart from transactions execution Slovak companies hedging against the currency risk use research papers and various reports prepared by bank analysts for them and consult with their bankers their hedging strategies. Almost all companies use more than one financial institution for services connected with their currency risk management (research and analysis, strategy design, trade execution) as table 7 suggests.

TABLE 7: INVESTMENT SERVICES PROVIDERS

	No. of investment services providers
<b>All companies in sample</b>	<b>3,6</b>
Top 20% biggest companies (by revenues)	5,3
Bottom 20% companies (by revenues)	2,3
Companies with the share of foreign currency transactions to turnover >50%	4,8
Companies with the share of foreign currency transactions to turnover <25%	2,1

The research suggests that bigger companies and companies with higher ratio of foreign transactions tend to have more providers of investment services as they diversify credit risk via trading with more counterparties while smaller companies look more at the costs side of the hedging transactions.

## Conclusions

1. Despite the market for SKK derivatives is young and small the need to manage currency risk in an environment of strengthening SKK created opportunities for both hedgers and speculators as well as intermediaries.
2. Together with steady growth of volume on basic derivatives (forwards and swaps) the market for other instruments (options and currency structures) is emerging with its opportunities and higher degree of following risk:
  - a. Liquidity
  - b. Squeezing
  - c. Vulnerability
3. Improvements are driven by activity of market players who actually decrease abovementioned risks via exploring opportunities – first mover advantage, due to undertaking these risks. However possible improvements have to be accompanied by economic viabilities – activity must pay off – and one has to take into account that the SKK market is to be over in couple of years.
4. Slovak financial institutions are only middlemen in majority of Forex transactions but the level of their services has significantly improved over recent years as well as the portfolio of their services.
5. The perception of currency risk among corporate financial managers improved - the bigger the company and the more volume of its transaction is in the foreign currency, the more steps are taken in order to manage it. Still there are many of them who do not manage it properly or at all. EURO is in the centre of their radar screens due to number of transactions followed by the USD and CZK.
6. Majority of companies use banks for executing the strategy designed with advisors (not necessarily banks only).

## Appendix

The final part of this paper is devoted to an application of techniques of regime-switching models to the time series of the exchange rates EUR/SKK in the period January 1993 – December 2004 (Fig.1).



FIG. 1: TIME SERIES OF EXCHANGE RATES EUR/SKK

There has been a dramatic increase of the values of EURO (expressed in SKK), following the elections in October 1998 (and subsequent changes in government and in economic policies as well as in the monetary policy of the Slovak National Bank). This change is clearly demonstrated in the results of fitting in the regime-switching class. Another switch of the regime is indicated by the recent behavior of the modeled time series, when SKK has been appreciating in connection with Slovakia's EU accession and positive development of FDI. The second switch of the regime is not yet statistically distinguishable from random disturbances in the investigated series. It is however, strongly supported by macroeconomic arguments.

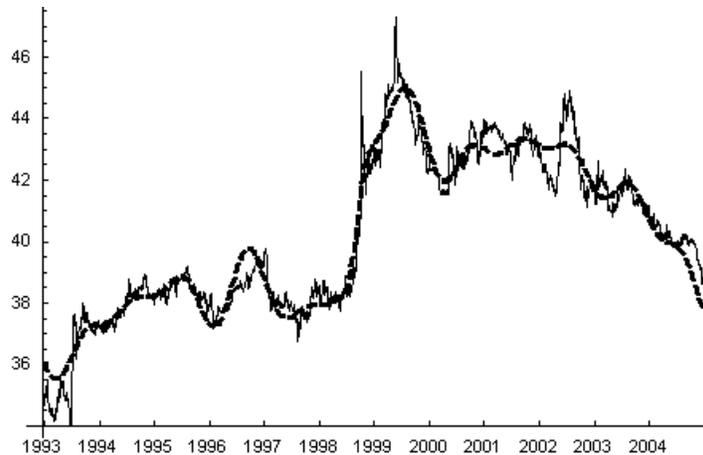


FIG. 2: RESULTS OF FITTING BY A REGIME-SWITCHING MODEL.

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## End Notes

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<sup>i</sup> [www.nbs.sk](http://www.nbs.sk), [www.cnb.cz](http://www.cnb.cz), [www.bis.org/press/p011009.pdf](http://www.bis.org/press/p011009.pdf)

<sup>ii</sup> [www.nbs.sk](http://www.nbs.sk)

<sup>iii</sup> Royal Bank of Scotland FX Volatilities, Bloomberg Professional, RBSO September, 2004

# Trade Openness and the Competitiveness of the Malaysian Electronics Sector: An Empirical Analysis

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## Abstract

**In this paper, the impact of trade openness on the Malaysian electronic sector in for the period 1970-2000 was examined. The Auto-Regressive Distributed Lag (ARDL) formulation was used to assess the impact of capital, labor and trade openness on the electronics output. The empirical results showed that the electronics output was co-integrated with labor, capital and trade openness. In the short run, labor and capital have positive and significant impact on the output of the electronics sector. In the long run, capital has a positive and significant impact on the electronics output. However, the trade openness has a negative and significant impact on the electronics Key strategies and policies to enhance the competitiveness of the Malaysian electronics sector are discussed in this paper.**

## Introduction

For the past four decades economists and policy makers have been debating the impact of trade openness on the economic growth. Some economists have argued that trade openness, i.e., reduction of trade barriers will promote export and increase the productivity through comparative advantage. Several empirical studies provide evidence that trade liberalization has a positive impact on economic productivity (see for example, Nishimizu and Page, 1982; Tybout et al, 1991 and Harrison 1996; Ghatak, Milner and Utkulu, 1997; Edwards 1998; Baharumshah and Rashid, 1999; Renuka, M. 2002).

A more recent study by Jayanthakumaran (2002) showed that trade openness and exposure to foreign competition have increased technical efficiency, increased importing capacity, thus industrial efficiency and reduced allocative inefficiency in developing countries. Alvarez and Fuentes (2002) showed that technical efficiency could be increased when the domestic firms compete in international markets. They also argue that when markets are protected, there is a tendency for monopolistic behavior. This can lead to inefficiencies in production.

Other economists have argued that economic growth is not solely dependent on open trade. They have argued that factors such as abundance of traditional factors of productions (land, labor, and capital), absorbability of the human capital in the country, innovative capabilities of the domestic firms, and the level of advancement of the infrastructure and institutions in the country are also important factors that will increase productivity and economic growth.

In many developing countries over the last two decades, the proportion of contribution of the electronics sector to the national output of these countries has been on an upward trend. Global demand for electronics goods during this period increased significantly. However, the numbers of suppliers have also increased over the same period. Thus, competition for global electronics market share has intensified over the years.

Malaysia a developing economy like many other developing countries embarked on an ambitious plan in the 1980's under Prime Minister Dr. Mahathir Mohamad to transform Malaysia into an industrialized economy. The 'Look East Policy' in the 1980s saw greater participation of the Japanese and Korean firms in the Malaysian economy. During this period, significant fiscal and non-fiscal incentives were provided by the Malaysian government to foreign firms to invest and develop the Malaysian electronics sector. Increased participation by the Japanese and Korean electronics firms resulted increased technology transfer between these firms and Malaysian firms. By the 1990s, Malaysia became one of the leading producers of electronics components and goods.

The electronics sector makes up a significant proportion of the manufacturing export of the country. Since the middle of the 1970s, the electronics sector has experienced significant growth compared to the other sectors of the economy (refer to Fig. 1).

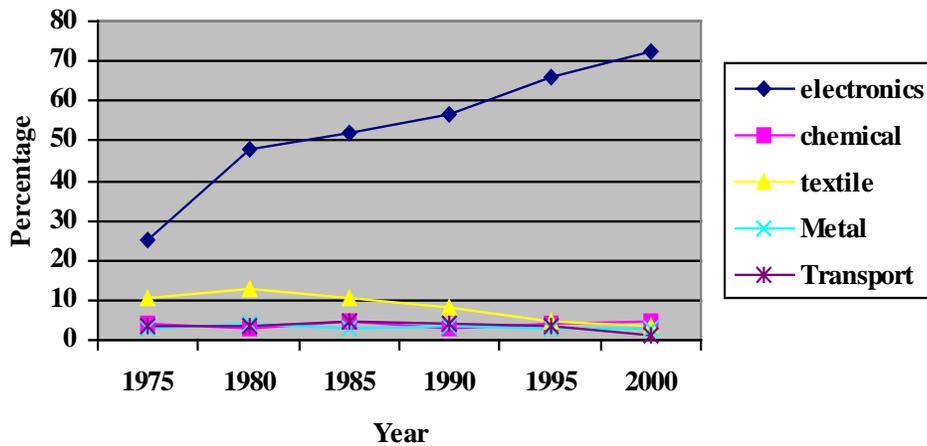


FIG. 1: MALAYSIA'S MAJOR MANUFACTURES EXPORT IN PERCENTAGE

The increase in export of electronics sector was attributed to the increase in all major sub-sectors such as semiconductor, electronic equipments and parts as well as electrical products. The top four major importers of Malaysian electronics goods are the US, Singapore, Japan and the European Union.

Since the 1980s the Malaysian electronics sector has attracted significant foreign direct Investment (FDI). Table 1 shows the sectors and the proportion of inflow of FDI into these sectors. Note that the electronics sector attracts the largest FDI into the country. In 2000 the electronics sector attracted 26.4% of the FDI into the country. Major sources of the FDI are from Japan, the NIEs-4 (Asian newly industrializing economies: Singapore, Taiwan, Hong Kong and South Korea) and US.

Competition for FDI, especially in the electronic sector has intensified over the last decade. The increased in competition for FDI was due to the emergence of new countries (e.g. China and several countries in the Latin American and Eastern European countries) in the production of electronics goods and components.

The aim of this paper is to empirically examine the impact of trade openness to the Malaysian electronics output from 1970 to 2000. The empirical analysis hopes to assess if trade openness has benefited the Malaysian electronics sector. This paper will also examine strategies and policies to increase the competitiveness of this key sector of the economy.

TABLE 1: PROPORTION OF SHARE OF FDI BY INDUSTRY IN PERCENTAGE

	1980-1981	1982-1984	1985-1987	1988-1990	1991-1993	1994-1996	1997-1998	1999-2000
Food Manufacturing	11.5	4.7	11.0	5.7	1.7	1.3	2.5	6.9
Beverages & tobacco	0.1	0.6	0.1	0.1	0.3	1.0	1.5	0.7
Textiles & textile products	1.7	3.2	2.7	5.3	5.7	6.0	3.0	7.5
Leather & leather products	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.5
Wood & wood products	1.1	2.3	2.6	6.3	3.3	5.7	1.4	3.5
Furniture & fixtures	0.3	0.5	0.3	0.9	0.6	0.6	0.6	5.3
Paper, printing & publishing	6.5	1.2	5.2	1.9	1.1	3.6	3.0	3.0
Chemicals & chemical products	8.0	22.3	7.0	12.7	5.7	5.7	19.0	6.2
Petroleum products (inc. petrochemicals)	0.7	3.3	26.0	9.0	34.0	11.7	26.5	1.4
Rubber products	7.0	3.3	5.3	6.1	0.6	0.5	0.6	3.6
Plastic products	0.7	1.9	4.0	3.3	1.0	1.9	2.0	5.0
Non-metallic mineral products	20.0	8.7	6.0	2.3	5.3	8.3	2.5	4.1
Basic metal products	10.5	10.0	6.7	14.7	12.3	4.0	7.0	4.0
Fabricated metal products	2.5	4.0	2.1	3.7	4.2	2.7	4.5	6.0
Machinery manufacturing	2.3	7.7	2.3	3.1	1.3	2.3	2.5	7.5
<b>Electrical &amp; Electronic products</b>	18.0	16.3	18.3	25.3	16.7	41.0	20.0	26.4
Transport Equipment	3.8	8.5	7.5	1.5	2.1	3.0	3.0	5.6
Scientific & measuring equipment	1.2	0.3	0.3	0.9	0.4	0.2	0.1	1.0
Miscellaneous	2.3	0.8	1.1	0.6	0.4	0.4	0.2	1.6
Natural gas	-	-	-	-	10.0	-	0.3	0.1
<b>TOTAL</b>	<b>100.0</b>							

Source: Malaysian Industrial Development Authority (MIDA)

The paper is organized as follows. In Section 2, a brief literature review on trade openness and economic performance. The empirical model used in this paper is described in Section 3. The data and the properties of the data series are discussed in Section 4. In Section 5, the empirical results are reported. In Section 6, strategies to enhance the competitiveness of the Malaysian electronics sector are discussed. In Section 7, the concluding remarks are given.

## Literature Review

There have been numerous research papers that have examined the relationship between trade openness and the performance of various sectors of the economy. However there are few studies that examine the relationship between trade openness and the competitiveness of electronic sector. In this section, a brief review of the literature on the impact of trade openness and competitiveness of the electronics sector will be examined.

Suarez-Villa and Pyo-Hwan (1990) showed that the growth in the South Korean electronic sector is attributed to the rapid technological developments. Competitiveness of the South Korean electronic sector was also due to the large pool of highly skilled and low cost labour. Mah (2000) empirically examined the import demand for certain information technology products for Korea. The findings show that price elasticity relatively high compare to

income elasticity. This would imply that lower tariff rate under the WTO negotiation would lower the import price for these products. As a result the import for these IT related products would increase substantially in Korea. A decrease in import cost of IT products will reduce the production cost for the electronic industry. Thus, making the South Korean electronic sector more export competitive.

Gorg and Ruane (2001) empirically analyzed the extent of local backward linkages between foreign firms and locally based firms in the Irish electronic sector. Further the determinants of these linkages and the related indirect employment generated in domestic firms was analyzed from 1982 to 1995. They found a non-linear relationship between the linkages and length of time of foreign firms located in Ireland. This is due to foreign firms' start with relatively low extent of local linkages but as they get accustomed to local sub-supply environment, they proceed to develop local input linkages. The finding of this study is consistent with the past studies that growth in employment has a linkage between upstream supplier firms with the development of downstream firms in the Irish electronic sector.

Tamamura (2002) examined the structural changes in international industrial linkages and export competitiveness in electrical and electronic in the Asia-Pacific region. The study showed that Asian countries are more competitive in the electronic sector due to low cost of labour. However, the supporting industries in this region have not been developed for more than a decade.

A study conducted by Bee-Yan (2002) examined the impact of research and development (R&D) and direct foreign investment (FDI) on the productivity growth of the Taiwanese electronic sector. The author used firm-level panel data from 1986 to 1991. The empirical results showed that R&D and FDI have a positive and significant impact on the productivity of the Taiwanese electronic sector. The study also showed that direct and indirect effects of technological activities lead to the development of Taiwanese small and medium level industries rather than its large firms.

Bhaduri and Ray (2004) investigated the factors that impact the export competitiveness of two R&D intensive industries in India, i.e., the electrical and electronic (E&E) and pharmaceuticals industries. The study found that technology and R&D have a positive and significant impact on the export competitiveness of the E&E firms in India.

## The Empirical Model

In this section the ARDL approach is used to examine the impact of capital, labour and trade openness on the output of the electronics sector. The framework employed in this study is similar to that used in Wadud and Nair (2003). The output of the electronics sector is characterized as follows:

$$y_t = f(\text{cap}_t, \text{lab}_t, \text{open}_t, T) \quad (1)$$

where  $y$  is the electronics value added output;  $\text{cap}$ ,  $\text{lab}$ , and  $\text{open}$ , represent capital and labour inputs, and an index of trade openness, respectively. The variable  $\text{open}$  was measured as: (export of electronics goods + import of electronics goods)/real GDP. The variable  $T$  in (1) is the linear trend representing the Hicks neutral technical progress.

In this paper, the ARDL method proposed in Pesaran et al. (2001) was used to estimate the relationship between the electronics output and the regressors. The present empirical formulation has two major advantages over the traditional and widely used econometric methods proposed by Engle and Granger (1987), Johansen (1988) and Johansen and Juselius (1990). First, the bounds test can be conducted irrespective if the regressors are *stationary* ( $I(0)$ ) or a *random walk* ( $I(1)$ ). Second, the estimated parameters are super-consistent for small sample.

Consider the following vector autoregressive model of order  $p$  (VAR ( $p$ )) that characterizes the relationship between the electronics output and its determinants:

$$\mathbf{z}_t = \boldsymbol{\mu} + \boldsymbol{\delta}T + \sum_{j=1}^{p-1} \boldsymbol{\phi}_j \mathbf{z}_{t-j} + \boldsymbol{\varepsilon}_t, \quad t = 1, 2, \dots, \quad (2)$$

where,  $\mathbf{z}_t = [y_t, x_t]'$ ,  $\boldsymbol{\mu}$  is the vector of constant terms  $\boldsymbol{\mu} = [\mu_y, \mu_x]'$ ,  $T$  is a linear trend,  $\boldsymbol{\delta} = [\delta_y, \delta_x]'$  and  $\boldsymbol{\phi}_j$  is a matrix of VAR parameters for lag  $j$ . In the context of our problem,  $\mathbf{x}_t = [cap_t, lab_t, open_t]'$ . The variables estimated are in natural logarithms, so that the estimated coefficients are the elasticities. As mentioned in Section 1, the data series  $x_t$  can either be  $I(0)$  or  $I(1)$ . The error term  $\boldsymbol{\varepsilon}_t$  can be partitioned conformably as  $\boldsymbol{\varepsilon}_t = [\varepsilon_{y,t}, \varepsilon_{x,t}]'$  :  $\forall (\mathbf{0}, \boldsymbol{\Omega})$  where  $\boldsymbol{\Omega}$  is positive definite, where:

$$\boldsymbol{\Omega} = \begin{bmatrix} \omega_{yy} & \omega_{yx} \\ \omega_{yx} & \omega_{xx} \end{bmatrix}. \quad (3)$$

The specification (2) can be written as an Autoregressive Distributed Lagged, ARDL[ $p, q, r, s$ ] model such as:

$$\begin{aligned} \Delta y_t &= \alpha_0 + \alpha_1 T + \varphi_y y_{t-1} + \psi_{cap} cap_{t-1} + \psi_{lab} lab_{t-1} + \psi_{open} open_{t-1} \\ &+ \sum_{i=1}^{p-1} \beta_{y,i} \Delta y_{t-i} + \sum_{j=0}^{q-1} \beta_{cap,j} \Delta cap_{t-j} + \sum_{k=0}^{r-1} \beta_{lab,k} \Delta lab_{t-k} \\ &+ \sum_{l=0}^{s-1} \beta_{open,l} \Delta open_{t-l} + \varepsilon_t \end{aligned} \quad (4)$$

where  $\varphi_y$ ,  $\psi_{cap}$ ,  $\psi_{lab}$  and  $\psi_{open}$  are the long run multipliers. The parameters  $\beta_y$ , and  $\beta_{cap}$ ,  $\beta_{lab}$ , and  $\beta_{open}$  are the short run multipliers.

Using the specification in (4), we can test if  $y$  is co-moving with the regressors. The ‘bounds test’ proposed in Pesaran et al. (2001) was used to test if the electronics output was co-moving with the other factors. The model in (4) was estimated using the ordinary least square (OLS) method. Then, we test the absence of a long-run relationship between  $y$  and  $cap$ ,  $lab$ , and  $open$  by restricting the coefficients of  $y_{t-1}$ ,  $cap_{t-1}$ ,  $lab_{t-1}$  and  $open_{t-1}$  to be zero. The bounds test is similar to the Wald-type test ( $F$ -statistics), where the null and alternative hypotheses are as follows:

$$\begin{aligned} H_0 &: \varphi_y = \psi_{cap} = \psi_{lab} = \psi_{open} = 0, \\ H_1 &: \varphi_y \neq 0, \psi_{cap} \neq 0, \psi_{lab} \neq 0 \text{ and } \psi_{open} \neq 0. \end{aligned}$$

The asymptotic distribution of the bounds test statistic is non-standard under the null hypothesis of no cointegration relationship between  $y$ , and  $cap$ ,  $lab$  and  $lab$ . The computed  $F$ -statistics under the null hypothesis is compared with the critical values given in Pesaran et al. (2001). Here, the computed  $F$ -statistics ( $F_{Bounds}$ ) is compared with the Lower Critical Bound ( $LCB$ ) and the Upper Critical Bound ( $UCB$ ).

<p>If <math>F_{Bounds} &gt; UCB \Rightarrow y</math> is cointegrated with <math>cap</math>, <math>lab</math>, and <math>open</math></p> <p>If <math>F_{Bounds} &lt; LCB \Rightarrow y</math> is not cointegrated with <math>cap</math>, <math>lab</math>, and <math>open</math></p> <p>If <math>LCB \leq F_{Bounds} \leq UCB \Rightarrow</math> Result is inconclusive</p>
--

In the latter case, the order of integration of the regressors needs to be ascertained before a conclusive outcome can be drawn regarding the long-run relationship between  $y$  and the regressors.

The rejection of no cointegration relationship implies that there exist a stable long-run relationship between  $y$  and the regressors. In this case, we can use the two-step strategy of the ARDL method proposed in Pesaran and Shin (1999) to estimate the long run and short run coefficients (elasticities) for our model. The estimation of the ARDL, the bounds test, the short run and long run elasticities are carried out using MICROFIT 4.0.

## The Data

In this study, we used annual data from 1970 to 2000 and the data for  $y$ ,  $lab$  and  $cap$  were obtained from the Department of Statistics Malaysia. The export, import and real GDP for the  $open$  variable were obtained from the *Quarterly Bulletin of Statistics (Bank Negara)*.

We examined the order of integration of the variables using the Phillip-Perron (1988) unit root test (PP test). The PP test was used because it allows for milder assumptions on the distribution of errors. Further, the test controls for higher order serial correlation in the series and is robust against heteroskedasticity. Based on the Phillip-Perron test, all the variables were found to be *random walk* (integrated of order one,  $I(1)$ ) (refer to Table 2).

TABLE 2: TEST FOR UNIT ROOTS FOR THE VARIABLES USING THE PHILLIP-PERRON TEST

<i>Variable</i>		<i>Test statistic</i>	<i>Order of Integration</i>
<i>y</i>	Level	-0.606	
	$\Delta Manu$	-6.916*	$I(1)$
<i>Cap</i>	Level	-0.481	
	$\Delta cap$	-6.509*	$I(1)$
<i>Lab</i>	Level	-1.804	
	$\Delta lab$	-5.900*	$I(1)$
<i>Open</i>	Level	5.716	
		-5.368*	$I(1)$

1% Level of significance based on the MacKinnon critical values.

The test was conducted with intercept and trend. The optimal lag was chosen using the Newey-West automatic truncation lag (Newey and West (1994))

## The Empirical Results

To select the appropriate model in (2), we estimated the  $ARDL[p, q, r, s]$  using the different lag length i.e.,  $\{p, q, r, s\} = \{1 \text{ to } 5\}$ . We did not proceed with  $\{p, q, r, s\} > 5$  due to loss of degree of freedom. Several specifications with different lags were tested for statistical significance and for consistency with the cointegration method. The Akaike Information Criterion (AIC) was used to choose the appropriate lag length for the ARDL model.

### The Unit Root Test

The long run relationship between the electronics output, capital, labour and open was tested using the 'bounds test'. Based on the 'bounds test' (given in Table 3), the computed  $F$ -statistic is 5.12, and the 5% and 10% critical bounds [Lower Critical Bound-LCB, Upper Critical Bound-UCB] are [4.01, 5.07] and [3.47, 4.45], respectively. Since the computed  $F$ -statistics is above the  $UCB$  at the 5% and 10% significance level, there exist a long-run relationship between electronics output and the regressors (capital, labour and open).

TABLE 3: BOUNDS TEST FOR COINTEGRATION ANALYSIS

Computed $F$ -Statistics ( $F_{Bounds}$ )	5.12	
Critical Bounds (5 percent)	LCB: 4.01	UCB: 5.07
Critical Bounds (10 percent)	LCB: 3.47	UCB: 4.45

Critical Bounds are from Pesaran et al. (2001), Table C1(v): Case V with unrestricted intercept and trend in the model, page 301.

**The Long-run Elasticities**

The estimated long-run coefficients for the ARDL model are given in Table 4. In the long run, the capital was found to have a positive and statistically significant (at the 5% significance level) impact on the electronics output. A 1% increase in capital will result in a 0.9852% increase in electronics output. On the other hand, labour has a positive impact on the electronics output. However, the impact is not statistically significant at the 10% significance level. This implies that the electronics sector in Malaysia is capital intensive.

In terms of trade openness, we observe that trade openness and electronics output is negatively correlated. The negative relationship is significant at the 5% significance level. The elasticity is -1.0788. That is, a 1% increase in trade openness will result in a fall in 1.0788% in electronics output. The technical progress was found to be positive but statistically not significant at the 10% significance level.

TABLE 4: ESTIMATED LONG RUN ELASTICITIES BASED ON ARDL[5,4,5,5] MODEL

Dependent Variable:		
Sample Period: 1975-2000		
<i>Variable</i>	<i>Coefficient</i>	<i>T-Ratio</i>
<i>Cap</i>	0.9852	5.2355**
<i>Lab</i>	0.4615	1.4839
<i>Open</i>	-1.0788	-3.3510**
<i>T</i>	0.1114	2.2264

\*, \*\*, \*\*\* significant at the 1%, 5%, and 10% significance level.

**The Short Run Dynamics and the Adjustment towards the Long Run Equilibrium**

The short run dynamics and the adjustment towards the long run equilibrium for the estimated ARDL model is given in Table 5. The overall capital and openness have a positive and significant impact on electronics output. Labour on the other hand has a negative and significant effect on the electronics output.

The short run adjustment process is measured by the error correction term (*ECM*). If the *ECM* value is between 0 and -1, the correction to electronics output in period *t* is a fraction of the error in period *t-1*. In this case, the *ECM* tends to cause the electronics output to converge monotonically to its long run equilibrium path in relation to changes in the exogenous variables. If the *ECM* is positive or less than -2, this will cause the electronics output to diverge. If the *ECM* is between -1 and -2, then the *ECM* will produce a dampened oscillation in the electronics output about its equilibrium path.

From Table 5, we see that the *ECM* is between -1 and -2 and is statistically significant at the 1% significance level. This implies that, the error correction process converges with a dampened oscillation to the equilibrium path relatively quickly. The statistical significance of the *ECM* confirms the presence of long run equilibrium between the electronics output and the regressors (capital, labour and trade openness).

TABLE 5: ERROR CORRECTION REPRESENTATION FOR THE ARDL [5,4,5,5] MODEL

<i>Variables</i>	<i>Coefficient</i>	<i>t-statistics</i>
$\Delta y_{t-1}$	-0.0229	-0.1248
$\Delta y_{t-2}$	-0.2643	-1.1552
$\Delta y_{t-3}$	-0.2731	-1.7685
$\Delta y_{t-4}$	-0.5464	-5.0386*
$\Delta cap_t$	1.0764	11.5072*
$\Delta cap_{t-1}$	0.1534	0.5544
$\Delta cap_{t-2}$	0.1944	0.7859
$\Delta cap_{t-3}$	-0.7341	5.0784*
$\Delta lab$	0.2035	2.4254**
$\Delta lab_{t-1}$	-0.1147	-0.3010
$\Delta lab_{t-2}$	-0.8401	-2.1934***
$\Delta lab_{t-3}$	-0.4772	-1.8186
$\Delta lab_{t-4}$	-0.3856	-3.1539**
$\Delta open_t$	-0.1241	-1.1076
$\Delta open_{t-1}$	1.2024	11.1084*
$\Delta open_{t-2}$	0.3043	2.7267**
$\Delta open_{t-3}$	0.3406	2.8519**
$\Delta open_{t-4}$	0.3042	3.1398**
$\Delta T$	0.1192	2.2164***
<i>ECM (-1)</i>	-1.0696	-5.1689*
R-Squared	0.9974	
Adj R-Squared	0.9783	
Durbin-Watson	2.6996	

\*, \*\*, \*\*\* significant at the 1%, 5% and 10% significance level.

## Strategies to Increase the Competitiveness of the Electronics Sector

The Malaysian electronics sector has undergone major restructuring over the last three decades due to growing global competition from other developing countries in the ASEAN, Latin American and Eastern European regions. In this paper, we empirically estimated the electronics output as function of labour, capital and trade openness.

The empirical results suggest that the Malaysian electronics output and its determinants are co-moving. That is, there exist a long run relationship between the electronics output and the determinants. From the estimated results, trade openness and capital have positive and significant impact on the electronics output in the short run. Overall labour has a negative and significant effect on the electronics output in the short run. In the long run, capital has a positive and significant effect on the electronics output, while the impact of labour is not statistically significant. Trade openness has a negative and significant effect on electronics output. Thus, liberalizing the Malaysian electronics sector over the sample period has had a negative impact on this sector. The Hicksian technical progress was found to have an upward trend in the long run, however the trend is not statistically significant.

To enhance the competitiveness of the Malaysian electronics sector, the following *supply-side policies* and *demand-side policies* should be considered to raise the competitiveness of the Malaysian electronics industry. First, given that Malaysia's workforce is smaller than that of neighbouring countries such as Indonesia, India and China, labour-intensive segment of the production process of electronics should be exported to countries that have larger work force. Only capital intensive and value added component of the electronics goods should be encouraged to be produced in Malaysia. Thus, outsourcing labour intensive production processes will keep the cost of Malaysian electronics goods globally competitive.

Second, there should be a concerted effort by the government and Malaysian electronics firms to make the electronics sector more technology and knowledge driven. Increased investment in new technology and ICT would help Malaysian electronics firms to enhance the delivery systems, productivity, and market reach. A knowledge- and technology-driven electronics sector will be able to pursue economies of scale and economies of scope.

The increase in investment for new technology in the electronics sector should be complemented with an increase in human capital development, especially in training the workers in this sector to use these new technologies. Better fiscal incentives should be given to enhance new technology adoption and training, especially among small and medium enterprises' (SMEs) in Malaysia.

Third, higher level of innovation would enhance the competitiveness and the output level of Malaysian electronics firms. This can be done in several ways, incentives should be provided to enhance the level of innovation among Malaysian industries and small medium enterprises (SME). The incentives can be in the form of infrastructure support for R&D and fiscal incentive (tax credits for R&D and R&D grants). Other research support can be in the form of financial support for new product development and improve the delivery systems. Funding to support technology and knowledge transfer between universities/research centers to SMEs in the country should be encouraged.

Fourth, policies to attract foreign direct investment (FDI) to develop the local electronics sector should be encouraged. Introducing various fiscal incentives such as lowering corporate tax can increase the inflow of FDI into the country. For example, Ireland had one of the lowest corporate tax rates in Europe (10% marginal tax rate). This was successful in attracting FDIs to Ireland, especially in high-end electronics sectors.

The various incentives for increasing innovation mentioned above should also be available for foreign electronics firms that undertake R&D activities in Malaysia. This will not only increase the inflow of capital into the country, it will also facilitate technology transfer between local and foreign electronics firms. Thus, increasing the innovative capacity of Malaysian electronics firms. Strategic cooperation between universities and industry should be encouraged, and these interactions should transcend national borders.

On the demand side, Malaysian electronics firms should seek opportunities overseas. Government jointly with the private sector should establish trade offices as a one-stop place to promote electronics goods manufactured in Malaysia. These trade offices should also be the source of information to potential investors on the various incentives available in the electronics sector in Malaysia. Further, these offices can play a key role in assisting Malaysian and foreign electronics firms to develop strategic partnerships for R&D, product development, and marketing.

## Conclusion

In this paper, we examined the impact of trade openness on the output of the Malaysian electronics sector using the ARDL model. The long run dynamics between the electronics output were tested using the bounds test for cointegration. The empirical method used in this paper has two important advantages over the traditional approaches used in the literature. First, the bounds test for cointegration can be conducted irrespective if the regressors are *stationary* ( $I(0)$ ) or a *random walk* ( $I(1)$ ). Second, the estimated parameters are super-consistent for studies with small samples, such as the present study.

The empirical analysis showed that the Malaysian electronics sector is capital intensive. However, trade openness has a negative and significant impact on the electronics output in the long run. Several strategies to increase the competitiveness of the Malaysian electronics sector were discussed in this paper.

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## **End Notes**

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# Is AFTA Trade Creating or Trade Diverting?

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## Abstract

**This paper examines the changes in intra-regional trade patterns before and after the implementation of AFTA. It also shows whether AFTA for the ASEAN-6 has resulted in trade diversion (where low cost production in the rest of the world is displaced by higher cost production in the partner ASEAN-member country) or trade creation (where ASEAN member countries shift away from reliance on high-cost domestic industry to imports from the lower cost partner member-countries). The paper uses the shift-and-share analysis to compare the extent of trade that member countries have with each other and with the rest of the world. It is found that AFTA resulted in trade creation rather than trade diversion. This was achieved with the change in the major composition of trade from mineral fuels to machines and transport equipments. Trade diversion was not supported because ASEAN members' major trade partners are outside the region.**

## Introduction

The ultimate aim of economic integration in Southeast Asia is the formation of an ASEAN (Association of South East Asian Nations) Economic Community (AEC) in 2020. The AEC is envisaged as a single market and production base where goods, services, investments and skilled labor are free to flow. One of the measures toward the realization of the AEC is the establishment of the ASEAN Free Trade Area (AFTA). AFTA was formed in January 1992 at the Fourth ASEAN Summit meeting when Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand (referred to as ASEAN-6) signed the Singapore Declaration and Framework Agreement on Enhancing Economic Cooperation. The other ASEAN member countries later joined: Viet Nam in 1995, Laos and Myanmar in 1997, and Cambodia in 1999.

The agreement involves the elimination of intra-regional tariffs and non-tariff barriers in the region. Its strategic objectives are to expand trade among the more than 500 million people comprising the region, increase the ASEAN's competitive edge by integrating the economies into a single production base and eventually, with economies of scale realized, attract more foreign direct investments into the region. For the ASEAN-6 members, the deadline for the comprehensive tariff reduction program was initially set for 2008 but was moved forward to 2002. The four remaining countries were given longer time frames in which to complete the program: Viet Nam in 2006, Laos and Myanmar in 2008 and Cambodia in 2010. As AFTA has only been virtually completed by the ASEAN-6, it is necessary that we focus on this countries.<sup>1</sup>

This paper assesses the trade effects of AFTA on intra-regional trade by examining changes in the trade patterns of each member country prior to AFTA and during its implementation. The paper also identifies commodity groups that were significantly affected by the initiative and shows whether AFTA has resulted in trade diversion (where low cost production in the rest of the world is displaced by higher cost production in the partner ASEAN-member country) or trade creation (where ASEAN member countries lowering their tariffs shift away from reliance on high-cost domestic industry to imports from the lower cost partner member-countries).

There are a number of difficulties in evaluating the effects of AFTA. As there are a number of other things happening at the same time as its implementation, it is by no means an easy matter to isolate the effects of AFTA. The Asian financial crisis of 1997/98 may have influenced the trade flows during the AFTA implementation. Although the agreement came into effect in January 1992, not all tariffs between the original six ASEAN members were removed on that date. Indeed, for most commodities, there was a schedule over a 10-15 year period during which tariffs would be phased out. Hence, trade flows in 1992 and afterward were not entirely free of duty. Trade liberalization both under the World Trade Organization and unilaterally by some countries are being undertaken at the same time as AFTA's implementation, and undoubtedly affected trade patterns.

This paper is organized as follows. Section 2 reviews the literature and explains the methodology used to analyze the effects of AFTA. Section 3 describes the general trends in ASEAN trade in the last two decades. Section 4 provides a general background of the AFTA agreement and its current status. Section 5 presents the shift-and-share analysis and results to identify the effects of AFTA and section 6 concludes.

## Previous Studies

In the analysis of regional trading agreements (RTAs), there are two empirical methods commonly used. One is simulation with a gravity model, which is generally applied ex-post. This approach is used to search for effects of RTAs after they have been implemented. In contrast, the second technique, counterfactual simulation with partial or general equilibrium trade models is a way to analyze the implications of proposed RTAs.

The basic gravity model of trade shows that trade between two countries should increase with their size (based on GDP, population, and land area) and decrease with transaction costs (such as distance and cultural similarities). To estimate the effects of RTAs, the basic gravity model is extended by adding a pair of dummy variables. The first dummy variable takes a value of 1 when both countries are members of the same trading bloc. Its coefficient is interpreted as the added volume of trade between two nations in the RTA relative to their trade with countries outside the bloc. Therefore, a positive coefficient indicates trade creation. The second dummy variable takes a value of 1 if only one of the countries is a current member of the bloc. The coefficient on this dummy variable is taken as the extent of abnormal trade between nations in the trading bloc and a country outside the bloc relative to a random pair of countries. A negative coefficient would suggest trade diversion.

Winters and Soloaga (1999), World Bank (2000), Cernat (2001), Gilbert, Scollay and Bora (2001), Jong Wha-Lee and Innwon Park (2004) and Coulibaly (2004) used gravity models to analyze the effects of AFTA. Winters and Soloaga (1999) applied the gravity model to annual non-fuel imports data from 1980 to 1996. Their estimates showed that on average, ASEAN's propensity to import from bloc members was significantly lower in 1995-96 than in 1986-88. On the other hand, ASEAN's overall propensity to import was higher in 1995-96 than in 1986-88. Likewise, the World Bank's (2000) estimates for ASEAN show that there is substantial increase in the coefficients for extrabloc trade, accompanied by a fall in that on intrabloc trade. Cernat (2001) finds that South-South RTAs are less trade diverting than theoretically predicted. The variable for trade creation was well above unity indicating that AFTA countries were trading more than four times by 1996 and 1998. At the same time, imports of AFTA countries from third countries were also more than four times by 1994 and more than double the level of trade between two otherwise comparable non-AFTA countries in 1998. Gilbert, Scollay and Bora (2001) show positive and significant openness coefficients of AFTA within the bloc and outside it. Moreover, they conclude that ASEAN has (thus far) been successful in promoting manufactures trade both among its members and nonmembers. Meanwhile the bias for agricultural trade in the bloc declined after 1992. Jong Wha-Lee and Innwon Park (2004) find that the majority of RTAs, AFTA included, contributed to an increase in trade between members and non-members, as trade among members increased to an even greater extent. Coulibaly's (2004) results show that AFTA has been net export diverting and intra-bloc export creating. Except for Brunei Darussalam, AFTA members appear to have experienced a decrease in their extra-regional export after the creation of the RTA. This negative result on AFTA members is a direct consequence of the net export diversion of the RTA. These studies have shown that AFTA has been both net trade creating and net trade diverting. These conflicting results call for further studies to properly assess the trade impact of AFTA.

A downside to the gravity equations is that they cannot control for all of the factors determining trade flows. They also do not contain details about tariff rates and product supplies and demands that are needed to establish whether changes in trade flows are really beneficial or damaging. An alternative way to execute this is to construct a full computer model of the economies under study, and then simulate the effects of the policy changes associated with the FTA. The microeconomic structure of this model enables it to predict changes in production in each sector and changes in factor prices and real incomes. Its major weakness however, is that it is not usually fitted to data as carefully, nor are they subject to the same statistical testing as econometric models. The cost of the

microeconomic detail is a complexity that makes rigorous econometric estimation impossible. (World Bank, 2000, p. 50)

Simulations using the general equilibrium models on AFTA's trade impact find substantial potential gains from trade liberalization. Adams and Park (1995) used a linked CGE system to quantify the macroeconomic effects of external shock, domestic policy, and regional-grouping and market-opening efforts through tariff reduction policies among ASEAN countries. Their empirical results indicate that ASEAN would be better off from AFTA, and the volume of trade within ASEAN would rise substantially. De Rosa (1995) finds in his simulations of the model that AFTA does create trade. AFTA is estimated to expand total trade within ASEAN by as much as US\$2.9 billion, or 19 percent. The simulation results also reveal that the ASEAN countries' expansion of production and exports in various economic sectors under the AFTA plan follows those expected under MFN liberalization. On agricultural production under AFTA, this is found to rise slightly in Indonesia, Malaysia, the Philippines, and Thailand., In Singapore, however, agricultural production declines under AFTA because more manufactured goods are sourced from the city-state within ASEAN that were previously imported chiefly from the major industrial countries. Finally, Adams and Horridge (2000) proves the trade-enhancing effects in each AFTA region of tariff reductions. All AFTA regions are projected to experience large increases in trade volumes, with the greatest increases occurring in regions with the highest initial levels of protection on imports from AFTA countries.

## **Methodology**

This paper follows Krueger (1999), which employs the shift-and-share technique to test the net impact of AFTA. Trade creation occurs when higher trade is generated among member countries as a result of their membership to a free trade area. The freeing up of trade barriers, tariffs in particular, lead countries to import commodities from lower-cost member countries away from high-cost domestic industry. In this way, economies in a free trade area produce more output by concentrating on commodities where their comparative advantage lies. Trade creation therefore, increases specialization in member countries and with economies of scale, improves their productive efficiency (Manzano and Mortel, 2003).

Trade diversion in contrast, occurs when member countries reduce their imports from low-cost, more efficient non-member countries to high-cost less efficient (partner) member countries. This is made possible by the discriminatory protection in place, as imports from non-members continue to face high tariff barriers effectively becoming more costly than tariff-free imports from less-efficient member countries.

The methodology employed to determine trade diversion effects of AFTA is the shift-and-share analysis to examine the changes in values and patterns between commodity groups and among AFTA countries and the rest of the world (ROW). This method compares the extent of trade that member countries have with each other and with the rest of the world before and after the establishment of AFTA.

To carry out the analysis, a base year (prior the establishment of AFTA) is first chosen to represent the benchmark or hypothetical trade patterns such as import shares among ASEAN-member countries and ROW (non-member countries) prior to AFTA. Using the average of 1985 and 1986 as a base, the difference between actual and hypothetical imports of member countries from ASEAN will be the shift. If there is an increase in the imports of a member economy at the expense of trade with the ROW (non-member countries), then there has been a positive shift. On the other hand, if the shift is negative, then there is no evidence that the member-country imports increased at the expense of trade with ROW. Lastly, if the shift is equal to zero, then there is evidence that the formation of AFTA did not affect trade flow during the said year.

The shift-and-share analysis provides limited evidence or indication that AFTA is either trade creating or trade diverting. Moreover, several other events or reasons apart from the formation of AFTA that can affect trade patterns would be enough to suggest caution in the interpretation of findings.

## **The AFTA Agreement: Background and Current Status**

The main implementing instrument of AFTA is the Common Effective Preferential Tariff (CEPT) scheme which requires that tariffs levied on goods traded within the ASEAN region that meet a 40 per cent ASEAN content requirement be reduced to 0-5%.

ASEAN members may exclude a product from the CEPT in three cases: 1) Temporary exclusions; 2) Unprocessed agricultural products; and 3) General exceptions.

Products under the temporary exclusion list are protected temporarily by a delay in tariff reductions. Tariffs on these products will ultimately be lowered to 5 per cent and below. In 1993, temporary exclusion was granted to machinery and electrical appliances in Brunei; chemicals in Indonesia, vehicles in Malaysia and Thailand; and textiles in the Philippines.

Unprocessed agricultural products are also not included in the CEPT scheme. However, all member countries have included a number of products, which fall under this category in the CEPT. Thus, only a small number of unprocessed agricultural products are actually excluded from the CEPT.

Finally, under the general exception list, products that a country considers necessary for the protection of national security, public morals, the protection of human, animal or plant life and health, and protection of articles of artistic, historic, or archaeological value are excluded from the CEPT.

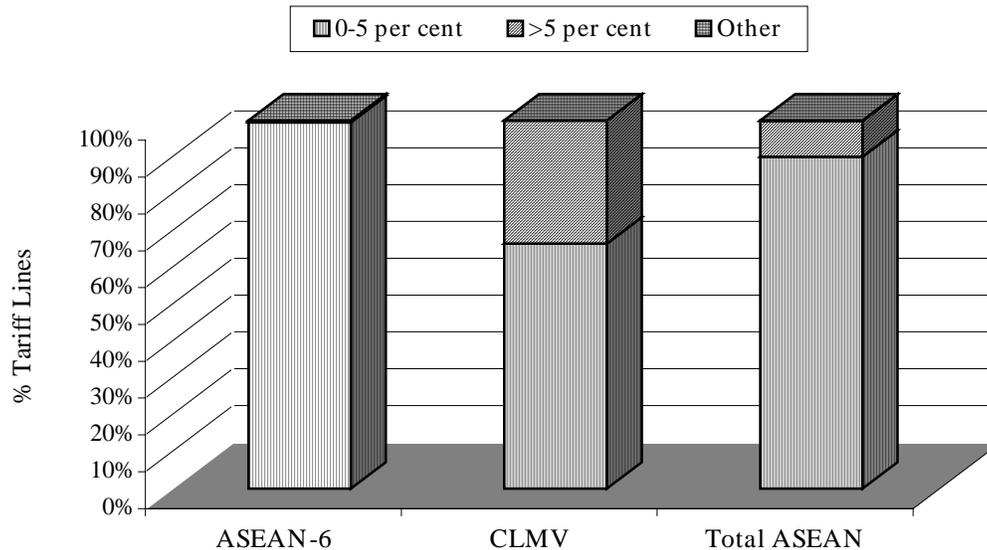
The CEPT package has 44,361 tariff lines in the inclusion list (IL) or almost 99 per cent of the total tariff lines. By January 2003, tariffs on 99.6 per cent (44,160 out of a total of 44,361 tariff lines) of products in the CEPT package of the ASEAN-6 have been reduced to the 0-5 per cent tariff range. In fact, in 2003, almost 50 per cent (or 21,626 tariff lines) of these products have zero tariffs and by 2004, tariffs on 64 per cent of the products have been eliminated (Fig. 1).

The average tariff in the ASEAN-6 under the CEPT Scheme in 2003 was 2.4 per cent, down from 12.8 per cent in 1993 when the tariff cuts began. It further went down to 1.5 per cent in 2004.

The implementation of the CEPT Scheme was significantly boosted in January 2004 when Malaysia announced its tariff reduction for completely built up (CBUs) and completely knocked down (CKDs) automotive units to gradually meet its CEPT commitment one year earlier than scheduled.

Products that remain out of the CEPT Scheme are those in the highly sensitive list (i.e., rice) and the general exception list. A review is being undertaken of all the items under the general exception list to ensure that only those items that conform to the CEPT Agreement are included.

The ultimate objective is for a free trade area where there is free flow of products within the region. Thus, the target for tariffs to be completely abolished is 2010 for ASEAN-6 and 2015 for the more recent members. Tariffs on some sensitive products were given until 2018 to be eliminated.



Source: <http://www.aseansec.org/>

FIG. 1: PERCENTAGE OF TARIFF LINES OF 0-5 PER CENT IN THE CEPT PACKAGE

## Trends in ASEAN Trade

Intra-ASEAN trade grew by an annual average rate of 5.7 per cent between 1980 and 2002. In particular, the period 1987 to 1996 witnessed the strongest intra-ASEAN trade growth of 16.6 per cent, before the financial crisis in 1997/98 temporarily derailed the upward trend. Since then, growth in intra-ASEAN trade has moderated to an average of 2.1 per cent in the period 1999-2002. Interestingly, the average annual growth rates in intra-ASEAN trade during the pre- AFTA years (1987 to 1991) and during the years of implementation (1992-1996) were very similar at 17.1 per cent for the former and 16.3 per cent for the latter.

ASEAN's largest markets are outside the region (Tables 1a and 1b). In terms of ASEAN's trade relationship with the rest of the world, we can see similar pattern in the trends. ASEAN's trade with the rest of the world grew by an average rate of 3.9 per cent per annum between 1980 and 2002. The strongest growth in ASEAN trade with the rest of the world was between 1987 and 1991 when an average annual growth rate of 14.5 per cent was posted. During the period of AFTA implementation, average annual growth of 10.4 per cent was achieved between 1992 and 1997 before it dipped in 1998, only to recover after that.

As share of total exports, intra-ASEAN exports rose from an average of 19.3% in the years preceding AFTA to 23.3% in 2002 when tariff reduction targets have been achieved (Table 1a). Consequently, the share of ASEAN's exports to the rest of the world dropped from 80.7% in 1985 to 76.7% in 2002. Intra-ASEAN exports peaked in 1995 at 23.6% before falling to 20.3% during the financial crisis.

The same upward trend is evident in the percentage share of ASEAN's imports in the region's total imports. From 19.4% in 1985, intra-ASEAN imports rose to 24.2% in 2002. Unlike intra-ASEAN exports, imports from ASEAN as a share of the total has been declining in the pre-AFTA years and did not recover from its 1985 level until 1998, the height of the financial crisis, when it reached 21.3%. Thus, the Asian economic crisis may have worked to support AFTA rather than derail it by creating a stronger desire to source imports from within the region. During the time of the financial crisis, perceived problems of credibility and confidence in the region by the industrialized world, comprising most of ASEAN's principal export markets, forced the ASEAN countries to turn inwards and to focus on their local markets (Elliot and Ikemoto, 2004).

TABLE 1A: ASEAN TRADE: EXPORTS (IN BILLION US DOLLAR AND PER CENT)

Year	Total Exports of ASEAN	Exports to ASEAN	% share in total exports	Exports to the rest of the world	% share in total exports
1985	72.4	14.0	19.3	58.5	80.7
1990	142.1	27.4	19.3	114.8	80.7
1995	312.8	73.9	23.6	238.9	76.4
1996	331.5	78.3	23.6	253.1	76.4
1997	344.8	79.3	23.0	265.5	77.0
1998	317.3	64.4	20.3	252.9	79.7
1999	342.6	70.8	20.7	271.9	79.3
2000	407.8	91.0	22.3	316.8	77.7
2001	365.3	78.6	21.5	286.7	78.5
2002	317.7	73.9	23.3	243.9	76.7

Source: International Economic Data Bank, Australian National University

TABLE 1B: ASEAN TRADE: IMPORTS (IN BILLION US DOLLAR AND PER CENT)

Year	Total Imports of ASEAN	Imports from ASEAN	% share in total imports	Imports from the rest of the world	% share in total imports
1985	65.9	12.8	19.4	53.1	80.6
1990	159.3	25.0	15.7	134.3	84.3
1995	342.5	59.9	17.5	282.6	82.5
1996	360.9	66.1	18.3	294.8	81.7
1997	358.3	68.4	19.1	289.9	80.9
1998	266.6	56.7	21.3	209.9	78.7
1999	285.9	61.4	21.5	224.5	78.5
2000	348.9	78.5	22.5	270.4	77.5
2001	316.5	68.0	21.5	248.5	78.5
2002	268.2	65.0	24.2	203.2	75.8

Source: International Economic Data Bank, Australian National University

Hence, the aggregate statistics convey a reasonably clear picture: that trade ties among the ASEAN partners intensified in the 1990s after the implementation of AFTA. It is possible to disaggregate the data to some extent, and to examine the behaviour of exports and imports of commodity categories. At the SITC one-digit level, there are 10 categories in the UN commodity trade data. Using data from 1985 to 2002, we make some inferences (Table 2).

Of the 10 one-digit commodity categories, two — mineral fuels, lubricants and related materials and machinery and transport equipment, demonstrate notable trends. In both intra-ASEAN exports and imports, mineral fuels, lubricants and related materials started as a very significant commodity category which accounted for approximately 40% of ASEAN's trade in 1985 but progressively declined to around 12% by 2002. In contrast, machinery and transport equipment showed the opposite trend of gaining importance as a commodity category by 2002 when it accounted for more than half of ASEAN's trade from about 18% share in 1985. Table 2 highlights these trends. One reason for this trend is the increasing pace of industrialization in ASEAN countries, which led to the increase in share of heavy equipment trade. Moreover, the increasing reliance of the manufacturing sector on intra-regional production networks where parts, components and other intermediate goods are produced across the ASEAN region and brought together in one location for final assembly has also contributed to this trade pattern (Elliot and Ikemoto, 2004)

As can be seen, there are distinct differences in the behaviour of other commodity categories in intra-ASEAN trade. Food and live animals, crude materials excluding fuels, animal and vegetable oils and fats, basic manufactures, all had declining shares from 1985 to 2002. On the other hand, beverages and tobacco, chemicals, miscellaneous manufactured goods and goods not classified by kind had increasing shares of intra-ASEAN trade during the same period.

TABLE 2: INTRA-ASEAN TRADE, BY COMMODITY GROUPS (PERCENTAGE SHARES, ONE DIGIT SITC CATEGORIES)

	1985	1990	1995	1996	1997	1998	1999	2000	2001	2002
<b>EXPORTS</b>										
Food and Live Animals	8.6	7.1	4.5	4.7	4.5	5.2	4.4	3.3	4.0	3.0
Beverages and Tobacco	0.4	0.6	0.5	0.7	0.8	0.8	0.8	0.8	1.0	1.1
Crude Materials excl. Fuels	5.0	4.8	3.0	2.7	2.2	1.9	1.7	1.5	1.8	1.3
Mineral Fuels etc	39.1	22.7	8.3	9.5	9.7	8.2	7.7	10.3	9.4	12.1
Animal & Vegetable Oil & Fat	4.4	1.4	1.1	0.9	0.9	1.2	0.9	0.6	0.6	1.0
Chemicals	6.2	7.6	6.6	5.8	6.3	6.6	7.0	6.9	7.4	7.4
Basic Manufactures	9.5	12.9	10.9	10.2	9.9	8.8	9.0	8.2	8.2	7.8
Machines, Transport Equipment	19.2	32.6	50.3	53.8	52.9	54.8	59.5	60.5	59.1	54.3
Misc. Manufactured Goods	3.8	8.5	12.0	10.4	9.8	9.6	7.6	6.7	6.7	6.8
Goods not classified by kind	3.9	1.7	2.8	1.3	2.9	2.9	1.4	1.1	1.7	5.4
<b>IMPORTS</b>										
Food and Live Animals	9.4	7.9	4.9	5.3	4.8	5.4	4.9	3.5	4.1	4.4
Beverages and Tobacco	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.7	0.7
Crude Materials excl. Fuels	8.0	6.3	4.4	3.9	3.3	2.9	2.5	2.4	2.5	2.2
Mineral Fuels etc	41.5	22.4	11.3	11.8	10.0	8.3	8.1	11.1	11.0	11.9
Animal & Vegetable Oil & Fat	5.1	1.7	1.2	0.8	0.8	0.9	0.9	0.6	0.6	1.0
Chemicals	5.2	6.3	5.3	5.1	5.8	6.0	6.6	6.9	7.4	6.7
Basic Manufactures	7.6	12.2	9.3	8.9	9.2	9.7	9.9	8.0	8.1	7.3
Machines, Transport Equipment	17.8	32.3	50.8	53.0	53.7	54.1	57.5	59.1	57.6	56.3
Misc. Manufactured Goods	3.5	9.5	10.9	10.2	10.3	10.5	8.4	7.5	7.3	7.0
Goods not classified by kind	1.6	1.0	1.7	0.9	1.8	1.9	0.9	0.5	0.7	2.5

Source: International Economic Data Bank, Australian National University

One can examine trade data to ask whether there are commodity categories in which the level of imports from the rest of the world fell as intra-AFTA trade increased. To the extent that declines in import volumes from third countries were associated with increasing imports from AFTA countries, there would be a suspicion of trade diversion. At the one-digit SITC level, however, there are very few commodity categories in which imports of AFTA countries from the rest of the world fell while rising within AFTA (Table 3). During the period 1992-2002, intra-AFTA imports of crude materials, excluding fuels (SITC 2) and basic manufactures (SITC 6) grew at the expense of AFTA's imports from the rest of the world. For the rest of the commodity categories, there was simply too much growth in trade in the global economy during this period. Hence, on the basis of the data, one certainly cannot infer a strong evidence of trade diversion.

TABLE 3: AVERAGE GROWTH IN INTRA-AFTA IMPORTS VERSUS ASEAN IMPORTS FROM ROW, 1992-2002 BY COMMODITY GROUPS (PER CENT)

Commodity Group	Growth in intra-ASEAN imports	Growth in ASEAN imports from ROW
TOTAL	8.0	4.1
SITC-0 (Food & Live Animals)	3.3	3.7
SITC-1 (Beverages & tobacco)	18.2	0.9
SITC-2 (Crude materials, inedible, except fuels)	0.5	-0.3
SITC-3 (Mineral fuels, lubricants & related materials)	4.6	8.2
SITC-4 (Animal & vegetable oils, fats & waxes)	2.4	2.7
SITC-5 (Chemicals & related products, n.e.c.)	9.3	2.5
SITC-6 (Basic manufactures)	3.3	-0.9
SITC-7 (Machinery & transport equipment)	12.9	5.4
SITC-8 (Miscellaneous manufactured articles)	4.7	3.7
SITC-9 (Goods not classified by kind)	54.2	39.1

### Is AFTA Trade Creating or Trade Diverting?

The aggregate data are sufficient to indicate that there has been an expansion of trade, both absolutely and as a percentage of total trade, among the AFTA countries since the 1990s, after AFTA was implemented. One question, however, cannot be answered on the basis of the aggregate data. That question refers to the extent to which the increase in trade among AFTA members reflects trade creation and shifts of production to locations of comparative advantage, and to what extent it reflects trade diversion and a shift from low-cost producers in the rest of the world to higher cost producers in the ASEAN countries.

This section examines the extent to which increases in intra-AFTA trade took place at the expense of the shares of trade of countries outside AFTA. Using commodity data from 1985 to 2002 at the one-digit level, we examine the shifts in shares of AFTA exports to the region to the shifts in shares of AFTA exports to the rest of the world (ROW) (Table 4). If the increase in AFTA imports from AFTA countries were associated with declines in import volumes from ROW this would provide a strong presumption of trade diversion.

Table 4 shows that overall ASEAN exports have gained shares in both the ASEAN and ROW markets. In the early 1990s, ASEAN exports appear to lose share in the region but posted positive net shares in the latter half of the decade. This confirms that AFTA had been trade creating rather than trade diverting. The gains in shares are most pronounced in machinery & transport equipment (SITC 7). Other commodity groups, which showed positive gains in net shares, are basic manufactures (SITC 6), miscellaneous manufactured goods (SITC 8), chemicals (SITC 5), animal & vegetable oil fat (SITC 4), and beverages and tobacco (SITC 1).

The result of this study is consistent with previous research, which does not support trade diversion in AFTA. There are several reasons for this. First, the share of intra-AFTA trade in total imports of AFTA member countries remains very small. As can be seen in Table 1b, it is only about 24% in 2002, which indicates that major import sources for AFTA member countries are outside the region (pre- and post-AFTA). Second, the absence of trade diversion is due to AFTA countries having similar production and trade structures and would source most of their imports from the rest of the world.

Finally, the simultaneous increase in ASEAN shares in both ROW and ASEAN markets suggests that ASEAN has improved its competitiveness and has therefore become more attractive as a source of imports for the world in general. The currency devaluation during the Asian crisis would have made ASEAN exports less expensive and should have further contributed to the increase in the competitiveness of their products with the rest of the world. At the same time, the crisis also forced ASEAN to turn inward and focus on their local markets.

TABLE 4: SHIFTS IN SHARES AT THE ONE-DIGIT LEVEL, INTRA-ASEAN TRADE (IN BILLION US DOLLAR AND PER CENT)

Commodity Group and Year	Total ASEAN imports	ASEAN actual exports to ASEAN	ASEAN exports if constant share of Total ASEAN imports	Change due to change in ASEAN share	Total imports of ROW	ASEAN actual exports to ROW	ASEAN exports to ROW at constant share	Change due to change in ROW share
<b>TOTAL</b>								
1985	65.9	14.0	13.3	0.7	1706.1	58.5	53.8	4.6
1995	342.5	73.9	68.9	4.9	4536.4	238.9	143.1	95.8
2001	316.5	78.6	63.7	14.9	5810.6	286.7	183.4	103.3
2002	268.2	73.9	54.0	19.9	5921.0	243.9	186.8	57.0
<b>SITC-0 (Food &amp; live animals)</b>								
1985	4.5	1.2	1.2	0.0	142.5	5.9	6.0	(0.1)
1995	14.5	3.3	3.8	(0.4)	334.4	16.6	14.0	2.6
2001	13.8	3.1	3.6	(0.5)	337.7	14.5	14.1	0.4
2002	11.9	2.2	3.1	(0.9)	347.8	6.4	14.5	(8.1)
<b>SITC-1 (Beverages &amp; tobacco)</b>								
1985	0.5	0.1	0.1	(0.0)	16.7	0.2	0.2	(0.0)
1995	2.3	0.4	0.3	0.1	44.8	1.7	0.6	1.2
2001	2.0	0.8	0.2	0.6	54.5	1.1	0.7	0.4
2002	1.9	0.8	0.2	0.6	57.7	0.9	0.7	0.1
<b>SITC-2 (Crude materials, inedible, except fuels)</b>								
1985	3.0	0.7	0.7	0.0	103.8	6.2	6.0	0.1
1995	11.9	2.2	2.7	(0.5)	215.1	13.2	12.5	0.7
2001	9.4	1.4	2.2	(0.8)	195.1	8.5	11.3	(2.9)
2002	6.1	1.0	1.4	(0.4)	194.4	7.0	11.3	(4.3)
<b>SITC-3 (Mineral fuels, lubricants &amp; related materials)</b>								
1985	14.9	5.5	5.5	(0.0)	331.0	21.4	20.9	0.5
1995	22.9	6.1	8.4	(2.3)	340.2	20.1	21.5	(1.4)
2001	35.8	7.4	13.1	(5.8)	580.3	27.6	36.7	(9.1)
2002	29.6	8.9	10.9	(2.0)	560.3	28.5	35.5	(7.0)
<b>SITC-4 (Animal &amp; vegetable oils, fats &amp; waxes)</b>								
1985	0.8	0.6	0.6	0.0	10.6	2.9	2.7	0.2
1995	0.9	0.8	0.7	0.1	23.3	7.0	6.0	1.0
2001	0.6	0.5	0.5	0.0	18.3	4.9	4.7	0.2
2002	0.8	0.7	0.6	0.1	21.9	7.3	5.6	1.6
<b>SITC-5 (Chemicals &amp; related products, n.e.c.)</b>								
1985	6.3	0.9	0.9	0.0	143.0	1.6	1.5	0.1
1995	29.5	4.9	4.1	0.8	457.3	8.8	4.8	4.0
2001	26.8	5.9	3.7	2.2	595.1	15.5	6.3	9.2
2002	20.6	5.4	2.8	2.6	648.6	14.7	6.8	7.9
<b>SITC-6 (Basic manufactures)</b>								
1985	9.4	1.3	1.4	(0.0)	255.7	5.2	4.7	0.5
1995	49.7	8.1	7.2	0.8	749.7	24.4	13.8	10.7
2001	35.4	6.4	5.2	1.3	813.5	25.2	14.9	10.3

2002	25.4	5.8	3.7	2.1	824.0	18.0	15.1	2.9
SITC-7 (Machinery & transport equipment)								
1985	21.0	2.7	2.7	(0.0)	496.0	8.9	8.7	0.2
1995	173.3	37.1	22.6	14.5	1648.4	98.5	29.0	69.4
2001	167.0	46.5	21.8	24.7	2255.2	140.0	39.7	100.2
2002	141.1	40.1	18.4	21.7	2293.1	114.7	40.4	74.3
SITC-8 (Miscellaneous manufactured articles)								
1985	3.6	0.5	0.5	(0.0)	180.9	3.7	3.8	(0.0)
1995	28.0	8.9	4.2	4.7	630.6	40.1	13.1	27.0
2001	22.7	5.3	3.4	1.9	813.2	43.0	16.9	26.2
2002	19.0	5.0	2.8	2.2	842.4	29.9	17.5	12.4
SITC-9 (Goods not classified by kind)								
1985	2.0	0.5	0.4	0.1	26.0	2.6	2.4	0.2
1995	9.6	2.1	1.9	0.2	92.5	8.5	8.4	0.1
2001	3.0	1.4	0.6	0.8	147.5	6.4	13.4	(7.0)
2002	11.8	4.0	2.3	1.7	130.7	16.4	11.9	4.5

## Conclusion

This paper has shown that the ASEAN Free Trade Agreement (AFTA) for the ASEAN-6 was more trade creating than trade diverting. It was able to invigorate the trading environment in the region. But to spur trade, the paper also has identified that the composition of trade has to evolve from the simple processed items of mineral fuels and the like to machinery and transport equipment, which involved more elaborate processes. This change is further indicative of the establishment of linkages in production between the ASEAN-6 member countries in keeping with ASEAN's goal of turning the region into a single production base.

There was no evidence of trade diversion largely because ASEAN members' major trade partners are outside the region. This finding suggests that trade liberalization on a multilateral scale would produce greater benefits to ASEAN. The efficiency and productivity of the region would be enhanced further under multilateral trade arrangements.

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### End Notes

<sup>1</sup> From here on, discussion on ASEAN and AFTA will only mean the participation of the ASEAN-6.

# Potential of Synthetic Fiber Exports: The Emerging Asia

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## Abstract

The global synthetic fiber trading has undergone a dramatic change over the past two decades. Synthetic fiber exporting has gradually shifted from Western developed nations to newly industrializing countries, especially those in the Asian regions. This study examines the extents and reasons for the substantial growth of synthetic fiber exports of Asian regions, including both developed and developing economies in Asia. Time-series regression modeling was employed to analyze the trends on the world share of synthetic fiber exports for the selected Asian countries from 1990 to 2003. Results showed that both developed and developing Asian nations have been able to enhance their market potential in global synthetic fiber exports by providing the right – type of synthetic fibers based on the technological level of the country and culminated in increases of world shares for synthetic fiber exports.

## Introduction

Nowadays, world synthetic fiber trading is a growing market and regarded as one of the most important export sectors in the global textile complex. Polyester, nylon, and acrylic are the major synthetic fibers as they have distinctive properties and applications for both functional and aesthetic appeal in textile applications. This constitutes intense and direct competitions with other natural fibers. The world consumption and production of synthetic fibers have already outperformed the natural textile fibers like cotton and wool in quantity. The assured growth can be attributed to the increasing world population, surging economic growth in the 1980s & 1990s, the increasing scope for the substitution of natural fibers coupled with the development of new end-uses. Fig. 1 illustrates the worldwide consumption of major fiber categories from 1982 to 2003, which reflects that the fiber consumption of synthetic fibers has already surpassed the natural fibers; hence it is worthy to conduct a comprehensive study on the global export pattern of synthetic fibers.

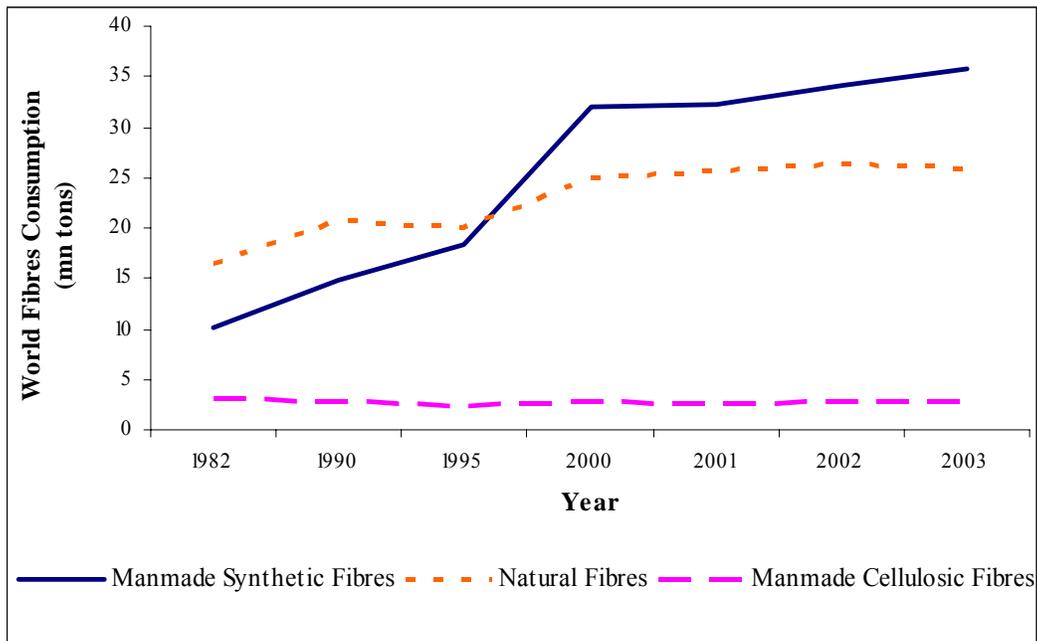


FIG. 1: WORLDWIDE CONSUMPTION FOR MAJOR FIBERS (MN TONS)  
Source: Compiled from Fiber Organon, *various issues* [7]

World synthetic fiber trading had demonstrated a substantial growth since the 1980s. World synthetic fiber trade valued at US\$ 2.75 billion in 1980, and increased by more than 100 % to US\$ 5.54 billion in 2003.

The trading patterns of the global synthetic fibers had changed markedly over the past few decades. In the 1970s and 1980s, industrial advanced states such as the United States, Western European countries including Germany, Italy, France and Japan in Asia were leading synthetic fiber exporters in the world. They dominated the world synthetic fiber export trade and took up about three-quarter of the global synthetic fiber exports in the 1970s. With technology becoming more mature, these industrialized nations tried to seek production in other low cost countries and hence migrated their investments to the Far East Asia. Since the mid 1980s and 1990s, two Asian NICs – Chinese Taipei and South Korea have emerged to become the global synthetic fiber exporters and accounted for 30% of the world's total synthetic fiber exports in 1999. Entering the new millennium, other less-developed Southeast Asian countries, such as Thailand, Malaysia, Indonesia, and the China PRC have been actively engaged in the global exporting of synthetic fibers. Their aggregate world shares had also witnessed significant increases, from 3.5 % in 1995 to 9.3 % in 2003. Global synthetic fiber exports have undergone dramatic changes with major exporters first began with the most developed countries, then shifted to the NICs, and further to the less-developed nations. This paper attempts to delineate the changing patterns of the global synthetic fiber export trade and tries to explain the observed phenomenon with international trade theories.

### Literature Review on the Changing Export Patterns of World Synthetic Fibers

Synthetic fiber trade is now regarding, as a globalized activity as there is an increasing number of countries engaged in the world's synthetic fiber production and export. Globalization has increased the international flows of trade, technology and foreign direct investment, which altogether contributed to the changing patterns of the global synthetic fibers export trade.

International technological knowledge diffusion is widely recognized as a fundamental factor for long run growth. However, the influence of technological change on trade and specialization is largely ignored in most of the

neo-classical trade theories [8]. The original technology gap model proposed by Posner [14] asserted that countries have a faster rate of innovation will tend to export technologically advanced goods to countries with slower rates of innovation in return for more standardized and labor intensive products. The innovating country still sustained her technological advantage until the new technology is imitated by her trading partners. Hence, the innovating countries may enjoy a temporary advantage in the production and export of that particular product due to the time lags through the diffusion of technological knowledge internationally. Fagerberg [6] and Verspagen [17] claimed that the successful adoption and use of new technologies is “a costly activity that requires investment in indigenous capabilities, capital equipment, and infrastructure etc.”

Another major theoretical effort to explain the observed changing trade patterns was the International Product Cycle Theory (IPLC) proposed by Vernon [16]. He stressed that each innovative product goes through a product cycle, being produced and exported first by the industrial advanced countries and then, after technology diffusion, by other developed countries and then the less developed economies. Lancaster and Wesenlund [9] examined the product life cycle theory for international trade based on the empirical analysis and applied it to the textile industry. Lutz and Kihl [11] investigated the rise of the newly industrialized countries as exporters of manufactured products from the perspective of the shifting pattern in comparative advantage and the product life cycle theory of trade. Lau, et. al [10] extended the IPLC to describe emerging economies and provided a framework for explaining the globalization of export-oriented productions by MNC's affiliates in emerging countries.

Moreover, foreign direct investment (FDI) is also an important vehicle of technology transfer from developed countries to developing countries, usually in the form of multinational corporations [12]. Since the production costs at home were much higher and the local currencies continually to appreciate, many industrialized-advanced economies, like the United States, Western Europe and Japan began to seek out new locations in other parts of the world. Latin America and the Far-East Asia thus became important new locations for them. This explains why there were an increasing number of manufacturing plants established by the industrialized countries in NICs, such as Chinese Taipei, South Korea and other South and Southeast Asian countries. Dunning proposed an eclectic framework with three conditions to explain FDI flows between different countries, including ownership-specific advantages, internalization incentives advantages and location-specific advantages [5]. The empirical evidence supported that the most important ownership advantages for FDI appear to be technological sophistication [18]. The technology know-how diffused internationally from the developed home country to the developing host countries through FDI. Recent studies of Chuang and Hsu [4] asserted that the presence of foreign ownership has a positive and significant influencing effect on domestic firms' productivity. Moreover, trading with more advanced countries helps the developing countries to gain access to new technology and information, which improves their productivity and enables them to compete in international markets. Balamoune-Lutz [2] examined the relationship between FDI, exports, and economic growth using a Granger causality model. The empirical results provided evidence to support bi-direction between FDI and exports, as well as a positive influence from exports to economic growth. More importantly, the author had emphasized the role of FDI in enhancing the economic growth of the host country.

## **Trends in Global Synthetic Fiber Trade**

In the last decade, global synthetic fiber trade had grown steadily. World trade in synthetic fibers reached US\$5.5 billion in 2003 compared with US \$4.30 billion in 1990, which represented an annual increase of about 2%.

### **The Leading Global Synthetic Fibers Exporters**

Table 1 lists the 20 largest synthetic fiber exporters in 2003 and also indicates their performance in 1990. From the data, it reveals that – on the whole - the shares of these listed countries in world synthetic fiber trade have assumed a steady performance, which was 73.7 % in 1990 and 76.3 % in 2003. In 1990, there were only 7 developing countries as shown in the top 20 synthetic fiber-exporting nations. However this number has been increased to 11 in 2003. The most remarkable gainer was Thailand, which ascended from beyond the top 20 ranking in 1990 to the 5<sup>th</sup> position in 2003. A similar increasing trend was also witnessed in other Asian economies like South Korea, Chinese Taipei, China PRC, Indonesia and Thailand.

On the contrary, the industrialized countries had lost their competitive advantages in the world synthetic fiber exports. In 1990, there were totally 13 developed nations included in the top 20 synthetic fiber exporters. However, this number has significantly reduced to 9 in 2003. Germany was the largest synthetic fibers exporter in 1980, however she only attained the 11<sup>th</sup> position in 2003.

TABLE 1: TOP 20 SYNTHETIC FIBER EXPORTERS, 1990 AND 2003 (VALUE IN US\$ MILLION)

Ranking	Countries	2003		1990		Ranking
		Value	World Share	Value	World Share	
1	South Korea	756	13.7	286	6.6	5
2	Chinese Taipei	726	13.1	400	9.3	3
3	Japan	661	11.9	484	11.2	2
4	USA	473	8.5	292	6.8	4
5	Thailand	240	4.3	27	0.6	25
6	China PRC	163	2.9	7	0.2	35
7	Spain	157	2.8	181	4.2	7
8	Mexico	154	2.8	45	1.1	18
9	Belgium (Lux.)	140	2.5	62	1.4	15
10	Belarus*	127	2.3	28	0.7	23
11	Germany	112	2.0	755	17.5	1
12	Ireland	108	1.9	103	2.4	9
13	UK	87	1.6	49	1.1	17
14	France	80	1.5	148	3.4	8
15	Indonesia	60	1.1	8	0.2	34
16	Italy	58	1.1	260	6.0	6
17	India	51	0.9	30	0.7	20
18	Malaysia	50	0.9	28	0.6	24
19	Turkey	25	0.5	77	1.8	14
20	S.Afr.Cus.UN †	/	/	2	0.0	42
Above		4,228	76.3	3,518	75.8	
<b>World Total</b>		<b>5,541</b>		<b>4,302</b>		

Sources: Data compiled from International Trade Statistics Yearbook, *various issues* [15]

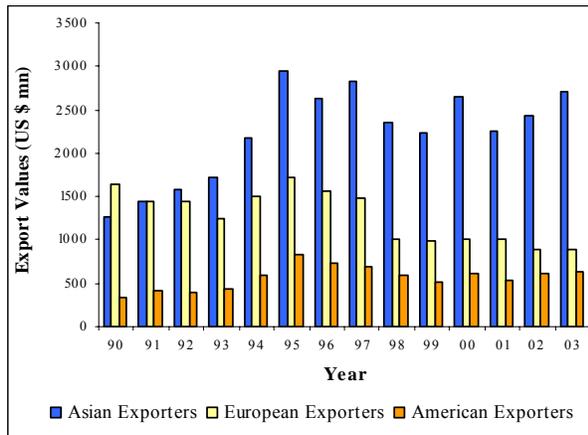
For Chinese Taipei, data obtained from Bureau of Foreign Trade – <http://www.trade.gov.tw> [3]

\* Belarus attained its independence in 1991 and data of Former USSR was used

† Only export values of 1999 obtained (US\$30mn)

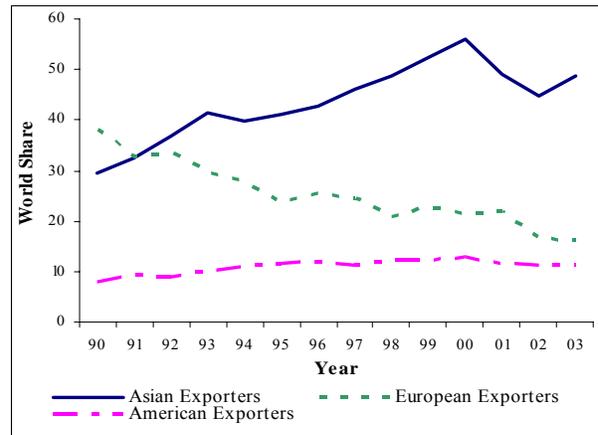
There was not much change in the composition of the top 20 synthetic fiber exporters in 1990 and 2003. Except that Netherlands, Hong Kong, Austria, Switzerland, Denmark and Peru had disappeared in the top-20 exporters' ranking while Thailand, China PRC, Belarus, Ireland, Indonesia and Malaysia joined the top listing. In 1990, the export values of the top 20 synthetic fiber exporters were US\$ 3,604 million, which accounted for about 84% of the world's total exports. The latest statistics revealed that the export values witnessed a steady increase to US\$ 4,228 million, and constituted about 76% of the world's synthetic fiber exports in 2003.

In 1990, there were six industrial-advanced countries regarded as major global exporters of synthetic fibers and each assumed more than 5 percent of the world's total synthetic fiber exports [1]. Most of them were Western industrialized countries. However, entering the 2000s, the Asian NICs gradually emerged to become the leading synthetic fibers exporters. In 2003, there were four economies, which achieved more than 5 percent of the global synthetic fiber trade with South Korea taking the lead. During this period, the number of Asian countries among the top 20 synthetic fibers exporters had increased from 5 to 8 between 1990 and 2003. Meanwhile, the aggregate world shares of the listed Asian leading synthetic fibers exporting-nations soared significantly from 29.6 % in 1990 to 48.9 % in 2003. Fig. 2 and 3 illustrate the export values and world share of the listed synthetic fiber exporters from 1990 to 2003. The graphs depicts that Asia was the only region which shows substantial increases in both synthetic fibers export values and shares during the prescribed period.



**FIG. 2: EXPORT VALUES OF SYNTHETIC FIBERS BY REGION, 1990-2003**

Source: Compiled from Bureau of Foreign Trade [3] and International Trade Statistics Yearbook, *various issues* [15]



**FIG. 3: WORLD SHARES OF SYNTHETIC FIBER EXPORTS BY REGION, 1990-2003**

Source: Compiled from Bureau of Foreign Trade [3] and International Trade Statistics Yearbook, *various issues* [15]

**FIG. 4: WORLD SHARES OF MAJOR ASIAN SYNTHETIC FIBER EXPORTERS**

Sources: Compiled from International Trade Statistics Yearbook, *various issues* [15]

For Chinese Taipei: Compiled from Bureau of Foreign Trade [3]

Other 2<sup>nd</sup>-tier Developing Nations include China PRC, Indonesia, Malaysia and Thailand

### Japan

Japan used to be the world leading synthetic fibers exporter in the 1970s and was regarded as the initiator in the synthetic fiber exports in Asia. Faced with rising labor cost and growing competition from low wage developing Asian economies, the performance of Japan's synthetic fiber exports during the 1990's has been inferior to other emerging exporters. Japan was always the number one exporter in the early 1990s, with an average world share of 13 % during 1990 to 1994. However it was slightly dropped to the second position when South Korea took the place during 1995 to 1999. In 2003, Japan was the 3<sup>rd</sup> largest exporter in the world synthetic fiber trade. In general, the synthetic fiber exports of Japan has witnessed a steady pattern, with a mere annual increase of 0.43 % from 1990 to 2003, whereas her export value increased by about one-third, from US\$ 485 million to US\$ 661 million during the same observed period (Fig. 5).

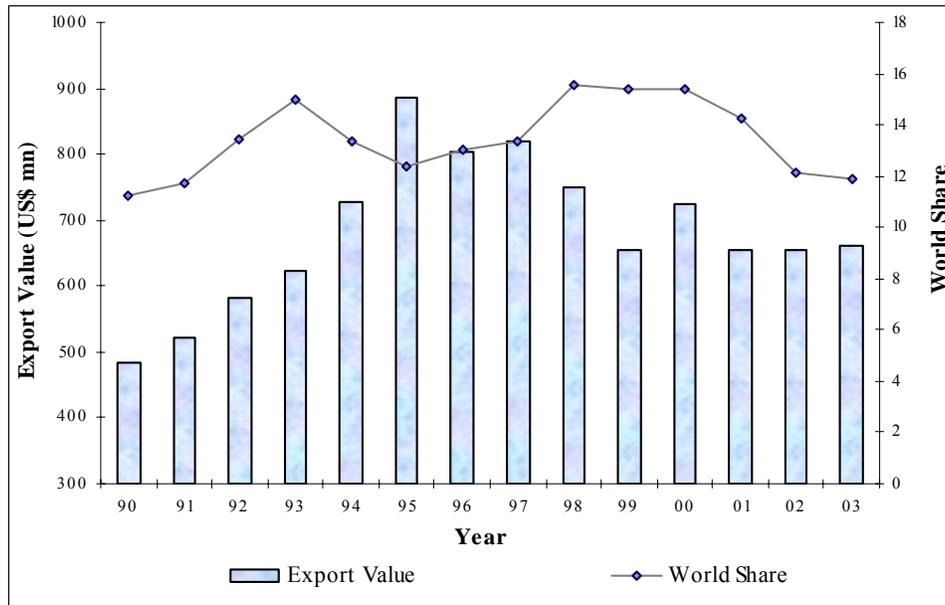


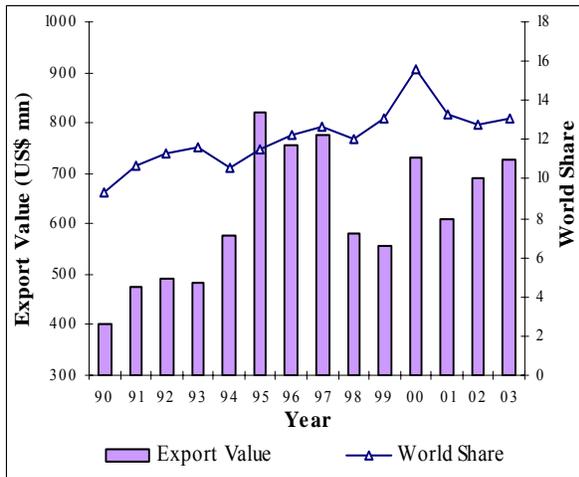
FIG. 5: SYNTHETIC FIBER EXPORTS FROM JAPAN  
 Sources: Compiled from International Trade Statistics Yearbook, *various issues* [15]

### Chinese Taipei and South Korea

There are substantial increases in the synthetic fiber exports for Chinese Taipei and South Korea during the prescribe period of study, both in values and world shares. This is due to that the two nations have already acquired the technology know-how through FDI from Japan and other industrialized countries, their production capabilities and capacity have greatly expanded. Today, the two economies play a significant role in the global synthetic fiber exports and have a remarkable export performance in the last decade. Fig. 6 and 7 depict the export performances of synthetic fibers for the two economies.

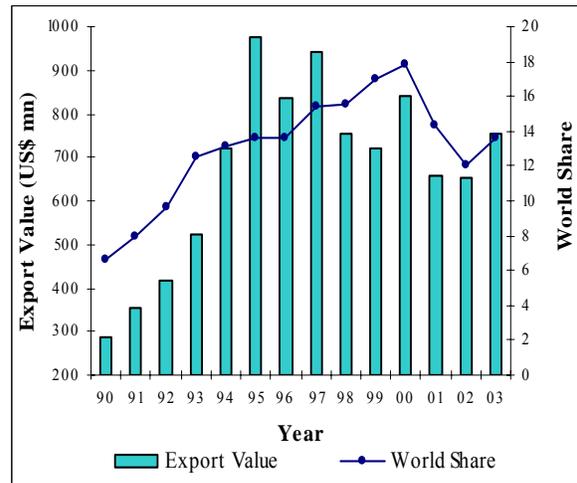
The synthetic fiber exports of Chinese Taipei had experienced a rapid growth during 1990 to 2003, with annual growth rates of 4.3 % in export values and 2.5 % in world shares respectively. In 1990, the country's export in synthetic fibers was valued about US\$400 million, accounting for 9.3 % of world share. During this period, Chinese Taipei was also included within the top-3 exporter in the world synthetic fiber trade. In 2002, her export share was 12.8%, and was regarded as the number one player in the world synthetic fiber export market.

Similar to Chinese Taipei, South Korea also registered an amazing growth in her synthetic fiber exports over the last decade. In 1990, her export value of synthetic fibers was US\$ 286 million and accounted for about 6.7% of the world's total exports. In addition, South Korea also ranked the first position in the world's leading synthetic fiber exporters during 1995 to 2001, with an average world share of 15.3 %. In 2003, South Korea resumed the number 1 exporting position, with US\$ 756.3 million, up 16 % from previous year and constituted about 13.7 % of the world's total synthetic fiber exports.



**FIG. 6: SYNTHETIC FIBER EXPORTS FROM CHINESE TAIPEI**

Sources: Compiled from International Trade Statistics Yearbook, various issues [15]



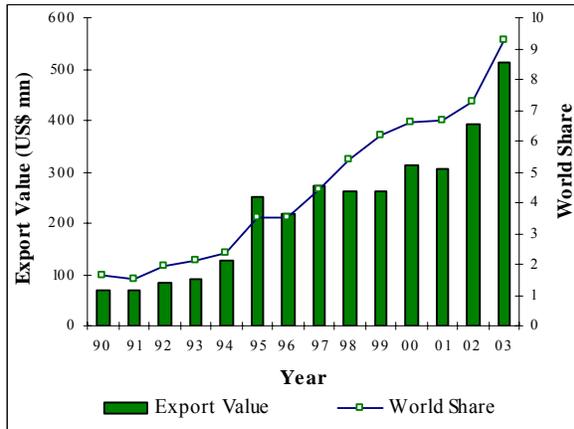
**FIG. 7: SYNTHETIC FIBER EXPORTS FROM SOUTH KOREA**

Sources: Compiled from International Trade Statistics Yearbook, various issues [15]

**Other 2nd-tier Developing Asian Countries**

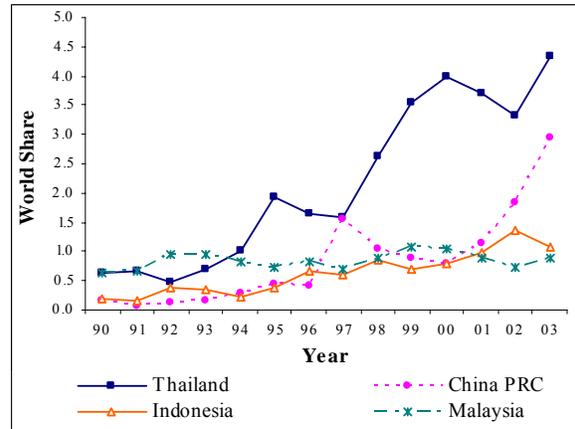
Other 2<sup>nd</sup>-tier developing Asian countries, including China PRC, Indonesia, Malaysia and Thailand, also demonstrated good performance in synthetic fiber exports in the 1990s and their growing trends also extended beyond the new millennium (Fig. 8). The synthetic fiber exports of the selected 2<sup>nd</sup>-tier developing Asian countries valued at about US\$ 70 million in 1990, representing about 1.6% world share. During the 1990s, these countries had actively involved in the world synthetic fiber trade, and registered sharp increases to US\$ 513 million in 2003, which accounted for 9 % of the world’s total.

Fig. 9 depicts the world share of synthetic fibers export of Thailand showing the greatest increase, from 0.64 % in 1990 to 4.3 % in 2003. In the same year, the country assumed the 5<sup>th</sup> position in the global synthetic fiber exports, after South Korea, Chinese Taipei, Japan and the United States.



**FIG. 8: SYNTHETIC FIBERS EXPORT OF SELECTED 2<sup>nd</sup>-TIER DEVELOPING NATIONS**

Sources: Compiled from International Trade Statistics Yearbook, various issues [15]  
Including China PRC, Indonesia, Malaysia and Thailand



**FIG. 9: SYNTHETIC FIBERS EXPORT SHARE OF SELECTED 2<sup>nd</sup>-TIER DEVELOPING NATIONS**

Sources: Compiled from International Trade Statistics Yearbook, various issues [15]  
Including China PRC, Indonesia, Malaysia and Thailand

### Modeling Trend for selected Asian Synthetic Fiber Exporters

The data in the previous section has pointed out that the Asian countries have gained their competitiveness in the world's synthetic fiber exports. Time series regressions were employed to test the trend of the world shares of the selected Asian synthetic fiber exporters from 1990 to 2003, and hence provide a statistical and mathematical model to describe the observed trends. After the analysis, it was found that the synthetic fiber exports trends of the selected Asian countries all showed an overall *increasing* pattern. The trends are modelled with a linear equation  $Y = \beta_0 + \beta_1 T$  and quadratic equation  $Y' = \beta_0 + \beta_1 T + \beta_2 T^2$  respectively. In the equation, Y is the indication for 'World Share' whereas T represents 'Time' and  $T^2$  is 'Square of Time'.

Table 2 lists the selected Asian countries with an overall *increasing* trend for their world shares of synthetic fiber exports, which consist of China PRC, Chinese Taipei, Indonesia, Japan, South Korea and Thailand.

TABLE 2: SELECTED ASIAN SYNTHETIC FIBER EXPORTERS WITH AN OVERALL INCREASING TREND

Country	Model	Adjusted R <sup>2</sup>	Constant	Coefficient
China PRC	$Y = \beta_0 + \beta_1 T$	0.6824	-0.0039	$\beta_1 = 0.0016$
Chinese Taipei		0.6222	0.0994	$\beta_1 = 0.0029$
Indonesia		0.8636	0.0000	$\beta_1 = 0.0029$
Thailand		0.8863	-0.0022	$\beta_1 = 0.0032$
Japan	$Y' = \beta_0 + \beta_1 T + \beta_2 T^2$	0.3448	0.1035	$\beta_1 = 0.0099$ $\beta_2 = -0.0006$
South Korea		0.8602	0.0369	$\beta_1 = 0.0255$ $\beta_2 = -0.0013$

Remarks: Y = world share, T = time

For China PRC, Chinese Taipei, Indonesia and Thailand, their increases can be described with a linear function (i.e. with positive  $\beta_1$  value). The regression models of these countries show reasonably good fitting which adjusted R<sup>2</sup> values ranging from 0.62 to 0.89. On the other hand, the increasing export trends of Japan and South Korea are modelled using a polynomial equation with linear ( $\beta_1$ ) plus quadratic ( $\beta_2$ ) function. In addition, their

coefficients of the linear components ( $\beta_1$ ) are positive, while the quadratic components ( $\beta_2$ ) are negative. The trend for these models can be described as increasing with a diminishing rate of increase.

## **Discussion**

From the above analysis, the world shares of synthetic fiber exports for the selected Asian countries, irrespective of their classifications into developed nation or 1<sup>st</sup>-, 2<sup>nd</sup>- tier developing nations, have shown significant statistical increases during 1990 to 2003. The trading philosophies as suggested by Posner's technology gap model, Vernon's IPLC and FDI reasons are justified for explaining the changing patterns of the world synthetic fiber exports.

### **Developed Nation: Japan**

Japan used to be the world leading synthetic fiber innovator and exporter over the past few decades. Its world share of synthetic fiber exports has increased steadily during 1990 to 2003. Although the country is now facing an intense competition due to the increasing number of developing countries engaged into the global synthetic fiber exports, Japan's leading position in synthetic fibers exporting was not easily be taken away. The key factors for the success of Japan's synthetic fiber industry are her advanced technological level and innovative development [13]. Following the technology-gap theory originated by Posner, innovative products are first initiated in industrial-advanced countries, as they are endowed with highly-educated scientists and abundant capital resources. From the statistics compiled from the Main Science and Technology Indicators of OECD Statistical Database, Japan used to have a comparatively higher R&D/GDP ratio when compared with other industrialized countries, implying that the country has input greater resources in innovative investment and results in strong competitive advantages in the development of new functional synthetic fibers. Nowadays, Japan has started to re-engine her local synthetic fiber industry from mass-produced commodity types into high-end specialty synthetic fibers production. Examples are Sporttech, Homotech and Clothtech [19]. The production technique of the hi-tech synthetic fibers was not easily imitated by other less-developing countries and hence Japan is still able to enjoy her technological advantage in exporting the high value added functional synthetic fibers.

### **1<sup>st</sup>-tier Developing Nations: Chinese Taipei and South Korea**

The sharp increases in synthetic fiber exports for the 1<sup>st</sup>-tier developing countries including Chinese Taipei and South Korea since the mid of 1980s can be explained by Vernon's IPLC model. Since they are the first-wave economies that have already acquired the technology know-how from the industrial-advanced countries coupled with their relatively low labor costs, they have gradually become significant exporters in synthetic fiber exports.

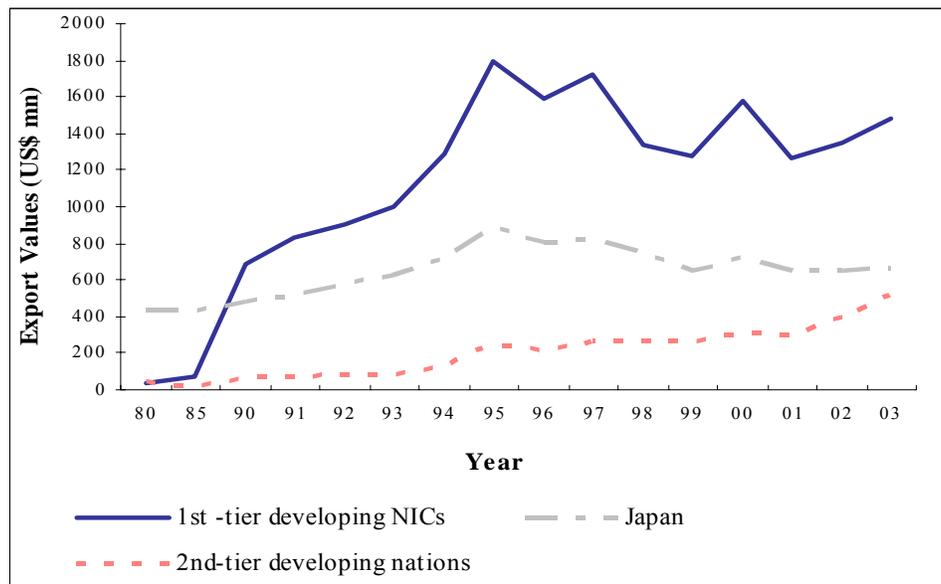


FIG. 11: SYNTHETIC FIBER EXPORTS OF SELECTED ASIAN COUNTRY GROUPINGS, 1980-2003  
 Source: Compiled from Bureau of Foreign Trade [3] and International Trade Statistics Yearbook, various issues [15]

Fig. 11 illustrates the pattern of IPLC for synthetic fiber export trade. At the early stage, the innovating country enjoyed the technology ownership advantage in exporting synthetic fibers. However, this advantage has lost when the technological know-how of producing synthetic fibers is taken up by other 1<sup>st</sup>-tier developing nations, such as Chinese Taipei and South Korea. They played an increasing vital role in the world synthetic fiber export trading and even outperformed the performance of Japan's synthetic fiber export. At a later stage, when the synthetic fibers became standardized products and the production techniques were acquired by lesser developed countries, the 2<sup>nd</sup>-tier developing countries with the advantage of lower labor cost would engage actively in the global synthetic fiber trading.

**2<sup>nd</sup>-tier Developing Nations: China PRC, Malaysia, Indonesia and Thailand**

When the common synthetic fibers become a more standardized product, it is necessary to lower its production costs by shifting the production plants to less-developing countries. In recent years, many MNCs in developed countries have set up offshore subsidiaries in the 2<sup>nd</sup>-tier developing nations through FDI in order to exploit locational, ownership and internalization advantages. The less-developing countries would be benefited through FDI as the technological-advanced home countries have brought the technological know-how and management expertise to the developing host countries. As a result, the production output of the 2<sup>nd</sup>-tier developing countries have enhanced and leading to increases in synthetic fiber exports.

**Conclusion**

In this paper, the synthetic fiber exports of the leading Asian countries have been analysed, using the export data at three-digit SITC level. Results show that the selected Asian countries have experienced significant increases in their world shares of synthetic fiber exports from 1990 to 2003. In addition, some developing Asian economies also have the potential to become leading global synthetic fiber exporters. It is anticipated that the Asian region would become an increasing engaged in synthetic fiber exporting and this trend will continue in the longer-term future.

The analysis also indicated that the potential of synthetic fiber exports in Asia is still great, including the well-developed economy (such as Japan), the 1<sup>st</sup>-tier developing nations (Chinese Taipei and South Korea) and further to the 2<sup>nd</sup>-tier developing countries (China PRC, Indonesia, Thailand etc). These country groupings play

distinct roles in the world's synthetic fiber exporting. The strategy for these Asian countries is to export the *right-type* of synthetic fibers based on their technological levels.

Japan, with a more sophisticated and advanced technological background, has carved out a niche market position by producing and exporting high value added functional synthetic fibers. As indicated by the technology gap model, the country can sustain her technological advantage over the developing fiber producers, and owns the competitive edge in the capital intense synthetic fiber production and export. Similar to the IPLC, the 1<sup>st</sup>-tier Asian developing nations hold the comparative advantages in synthetic fiber exports and have moved up to become leading fiber exporters in the world. In general, the less-developing Asian synthetic fiber producers, enjoying their low cost advantages, have obtained substantially increases in the world shares of synthetic fiber exports over the past decades. The phenomenon was facilitated by the fact that many industrialized countries have made direct investments and established manufacturing plants in the developing countries in order to exploit the advantages of the host countries. Through technology transfer, the developing Asian countries are able to secure new manufacturing technology to improve their productivity and culminated in increases of synthetic fibers exporting.

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### **End Notes**

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# The "Impossible Trinity" Cannot Serve as the Theoretical Foundation for China to Choose the Exchange Rate Regime

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## Abstract

At present, some Chinese and foreign scholars discuss the reform of China's exchange rate regime on the basis of the "impossible trinity" hypothesis that there are not simultaneously perfect capital flows, fixed exchange rate, and monetary independence in an economy. This paper concludes that there is not this "trilemma" but "dilemma" in an open economy, supported by the Mundell-Flemming model and Dornbusch's model of the exchange rate overshooting. Therefore the independence of the monetary policy cannot be the reference for the choice of Chinese exchange rate regime. The author emphasizes that the choice of exchange rate regime can not be decided on the short-run policies performances. As a long-run arrangement, it must be considered that which exchange regime is good for the sustainable economic growth.

## The Study Background of the Relationship between the Proposition of "Impossible Trinity" and the Choice of China's Exchange Rate Regime

China has been maintaining double surpluses in the current account and capital account since 1999. The Official Reserve increased greatly in the last two years and amounted to USD 403.3 billion<sup>1</sup> in the end of 2003, 40.7% up on a year by year basis, or USD 116.8 billion (State Administration of Foreign Exchange of China, 2003), and set a new record in our history. At the same time, the western economy in downturn leads to the rise of trade protectionism with the gradually growing pressure on the appreciation of RMB. Currently, China has broken away from the deflation in domestic economy, with increasing economic growth and some trend of over-heating. The central bank is forced to take measures to sterilize the expansion of base money caused by the increase of foreign exchange reserves in order to prevent over-heating and inflation. The revaluation pressures on RMB are from home and abroad and it has become a hot topic to discuss whether RMB should be appreciated and the RMB exchange rate regime should be adjusted. In the discussion, some believe that China's monetary policy cannot be autonomy with fixed exchange rate and full convertibility of the capital account according to the "Impossible Trinity", namely, the full capital mobility, stable exchange rate and monetary policy autonomy cannot be hold at same time (Hu Zuli, 2003), and draw conclusions as following: In the short run, if RMB exchange rate cannot adjusted, more rigorous capital control would have to be exercised to reduce the sterilization pressure of the central bank, i.e., to maintain the independence of monetary policy at the price of capital mobility; In the long run, China is destined to get integrated into the global economic system thus has no choice but to give up the *de facto* fixed exchange rate regime and turn to the floating one (Eichengreen, 2003) so as to fully solve the revaluation pressure on the RMB.

Just as John Snow, the US Treasury Secretary, says in the meeting with Wen Jiabao on September 3, 2003, "the choice of exchange rate regime is a matter of a nation's internal affairs" which should not be determined by giving in to external political pressures. So, the monetary policy autonomy seems to be a determinant in the choice of exchange rate regime, just in economic consideration. The paper will analyze Mundell-Flemming model (herein after "M-F model") and Dornbusch's Exchange Rate Overshooting model, through which it is revealed that we are not only faced by the trilemma of monetary policy autonomy, stable exchange rate and perfect capital mobility, but also "dilemma in open economy" of missing monetary policy autonomy so long as the economy is opened, thus the monetary policy autonomy cannot serve as the theoretical foundation for choosing exchange rate regime. The "Impossible Trinity" is so simplified with several crucial factors ignored that it will be misleading so long as we are limited to the "Impossible Trinity" in choosing the long-term regime. The author emphasizes that the choice of either fixed or floating exchange rate regime should be a long-term arrangement and could not be determined by short-term policy performance. In stead, consideration should be given to whether the fixed exchange rate regime or the

floating one is more favorable for the continuing economic growth.

The following is an introduction of what the "Impossible Trinity" means, after which the extended M-F model will be used to prove that even the absolute capital immobility cannot ensure the independence of monetary policy in fixed exchange rate regime. Then, Dornbusch's Exchange Rate Overshooting model will be used to discuss that the monetary authorities will be forced to give up the independence of monetary policy by the exchange rate overshoot in the floating exchange rate regime. In the end, the other criteria of choice will be given together with the suggestions for China to choose exchange rate regime in the long run.

### The Meanings of the "Impossible Trinity"

The M-F model is publicly accepted as the theoretical basis for the "Impossible Trinity". The model takes the assumption of full capital mobility and reveals that the quantity of currency is an endogenous variant of the economic system in fixed exchange rate regime and subject to the balance of payments, thus cannot be considered as an anti-economic-cycle tool, while the same is an external one in floating exchange rate regime and can be considered as an anti-economic-cycle tool, and the foreign economy related sectors, however, will have to bear the risk of exchange rate fluctuation. The conclusion is symbolized by an "impossible trinity" as illustrated by Fig.1.

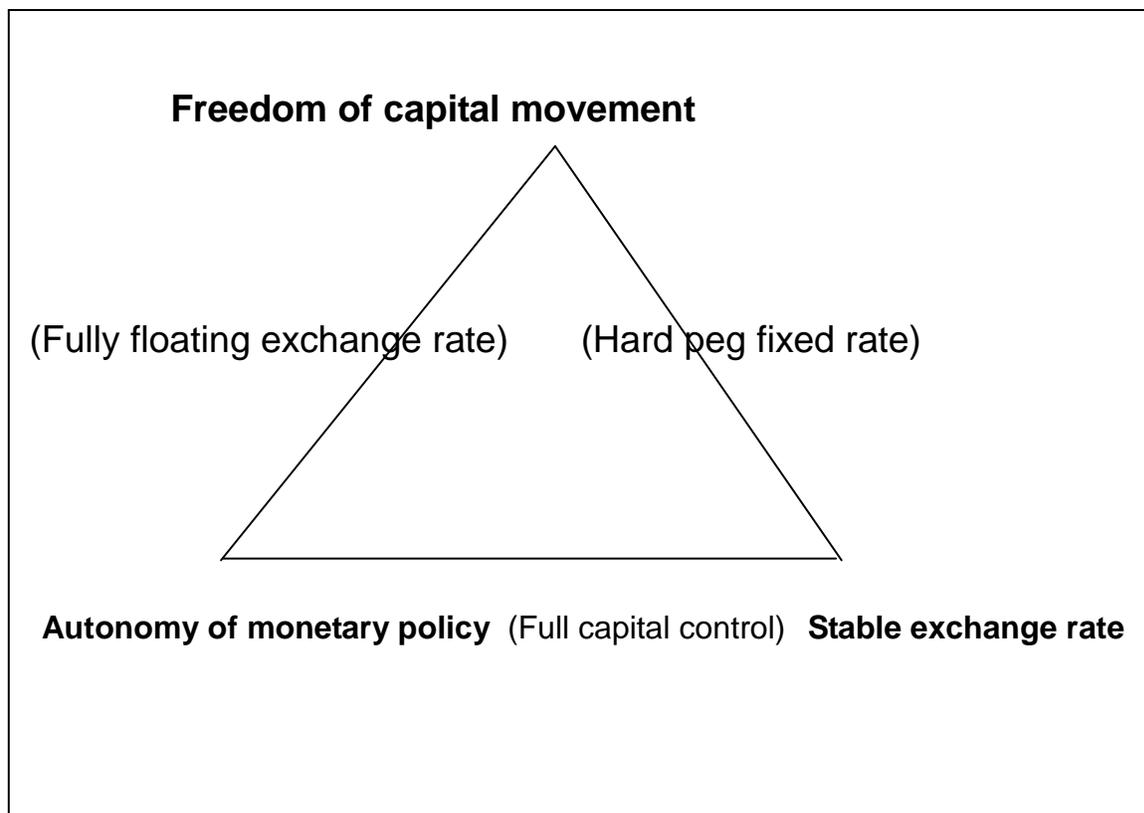


FIG.1: THE "IMPOSSIBLE TRINITY"

The three corners of the trinity above represent the freedom of capital movement, the autonomy of monetary policy and the stability of exchange rate, respectively, which are three positive macro-economic

objectives: The realization of the freedom of capital movement can lead to the integration into the global financial system and improve the efficiency of international capital allocation; The realization of the autonomy of monetary policy means the independence of monetary policy from foreign factors and the free adjustment against the fluctuation of domestic output and price indicators; The realization of the stability of exchange rate can help to stabilize the relative price at home and abroad, which is favorable for international trade and investment. The three sides represent the regimes of capital control, floating exchange rate and hard peg fixed exchange rate<sup>2</sup>, respectively. The proposition of "Impossible Trinity" means that one of the three objectives, namely, the currency policy independence, exchange rate stability and perfect capital mobility, has to be given up, due to the impossibility of realizing them all at the same time.

There some economists explains their idea of the international arrangement of currency and finance regimes on the basis of the "Impossible Trinity". Krugman discusses according to the "Impossible Trinity" that perfect capital mobility has to be abandoned to maintain the stability of exchange rate and the independence of currency policy, providing theoretical support to the post financial countries such as Malaysia to exercise the financial policy of strengthening the capital control. As to the discussion over whether RMB should be appreciated and the related exchange rate regime should be adjusted, Morris Goldstein, the well-known "Mr. Financial Crisis", also uses the "Impossible Trinity" as the basis for his suggestions to China, i.e., to take two strategical steps, of which the first is to turn from directly pegging to the US dollar to a basket of currencies (US dollar, euro, and Japanese Yen) and appreciate RMB by 15-20%, the second is to exit from the peg regime in the long term (about 10 years) and resort to the managed floating exchange rate system with a fluctuating margin of 5-7% (Goldstein and Lardy, 2003). The intuitionistic explanation ability of the "Impossible Trinity" makes it extremely popular in the analysis of exchange rate regime and the related policies and even considered as the fundamental doctrine by some economists.

Theoretically, if there're perfect replaceability between domestic and foreign capital, freedom of capital movement and reliable fixed exchange rate regime, domestic interest rate cannot be autonomously adjusted independent of foreign interest rate due to the arbitraging activities of arbitraging funds which can be seen as indefinite in amount. Therefore, the monetary policy cannot be freely and smoothly applied independent from the external factors and centered around the domestic economic conditions. This is the direct conclusion of uncovered interest rate parity as well as the basic logic of the "Impossible Trinity". The logic, however, can only exclude the simultaneity of the three corners on the "Impossible Trinity" and cannot ensure the coexistence of any two of the corners: e.g., we have no way to draw from the "Impossible Trinity" whether the autonomy of monetary policy will be definitely ensured under the fixed exchange rate regime if we give up the freedom of capital movement, or, whether the independence of monetary policy will be definitely ensured with the perfect capital mobility if we abandon the fixed exchange rate regime. The analysis framework of M-F model on the balance both in the monetary market and commodity market is overturned when Obstfeld, among others, change the valuation criteria on the efficiency of monetary policy from its impact on the output, the prices and the employment to the difference between the interest rate at home and abroad, with nothing but the partial-equilibrium analysis remained. Then, let's return to the basic framework of the M-F model and thoroughly examine performance of the monetary policy in the bottom edge solution<sup>3</sup> of the "Impossible Trinity", we will find that the complete capital control cannot guarantee the long-term efficiency of monetary policy in the fixed exchange rate regime, although the domestic interest rate is shielded from the foreign one.

## The Bottom Edge Solution of the "Impossible Trinity"

The algebraic form of the M-F model is as follows:

$$y = \delta(s+p^*-p)+\gamma y - \theta i + g \quad (1)$$

$$m = \phi y - \lambda i \quad (2)$$

$$\delta(s+p^*-p) - \alpha y = 0 \quad (3)$$

Where

$y$  – The national income;

$s$  – The spot exchange rate, a constant if in the fixed exchange rate regime;

$p^*-p$  – The spread between prices at home and abroad, usually assumed to be constant because the M-F model is a price stickiness one;

$\delta$  - The sensitivity of the current account balance to the real exchange rate,  $\delta$  is positive number with the assumption of Marshall-Lerner conditions;

$\gamma$  – The marginal propensity to spend;

$\theta$  - The sensitivity of investment to the interest rate;

$g$  – The government expenditure;

$m$  – The real money supply, co-determined by the domestic credit and the official reserve;

$\phi$  - The ratio of money demand to the national income;

$\lambda$  - The sensitivity of money demand to the interest rate;

$\alpha$  - The marginal propensity to import.

Equation (1) reveals the relationship between the interest rate and the national income with the equilibrium of commodity market maintained; Equation (2) reveals the relationship between the interest rate and the national income with the equilibrium of money market maintained; Equation (3) reveals the equilibrium of balance of payments with zero current account balance, namely, completely immobile capital.

Equation (3) shows that, with given  $p^*-p$  and  $\delta$ ,  $\alpha$ , there would be a unique national income under the equilibrium of balance of payments, called  $y_0(=\delta(s+p^*-p)/\alpha)$ .  $y_0$  also represents the national income under the automatic economic equilibrium. The reason is that, when  $y > y_0$ ,  $\delta(s+p^*-p)-\alpha y < 0$ , the balance of payments gets in deficit and the official reserve decreases, leading to the decline in the money supply and increase in the interest rate with accordance with equation (2), and then leads to the down turn of national income, until  $y = y_0$ . On the other hand,  $y < y_0$ ,  $\delta(s+p^*-p)-\alpha y > 0$ , the balance of payments gets in surplus and the official reserve decreases, leading to the increase in the money supply the up turn of national income, until  $y = y_0$ .

The target of the monetary policy is the national income under full employment,  $y_f$ , which may be higher or lower than  $y_0$ . When  $y_f > y_0$ , the monetary policy has to be expansionary in order to push the national income from  $y_0$  to  $y_f$ . Once  $y > y_0$ , however, there will be a deficit in the balance of payments, leading the decline in the money supply. Similarly, when  $y_f < y_0$ , the contractionary monetary policy is needed to push  $y$  from  $y_0$  back to  $y_f$ . Once  $y < y_0$ , however, there will be a surplus in the balance of payments, leading the increase in the money supply. The monetary policy is considered as ineffective from the long run because the policy-related money supply cannot be determined or exercised freely toward domestic targets, due to the offsetting effect by the reverse response of the money supply caused by the inequilibrium in the balance of payments.

In the M-F model, the dependence of monetary policy is actually impossible in the fixed exchange rate regime, regardless of the mobility of capital. which means it's from the beginning to open the economy and adopt the fixed exchange rate regime that the central bank cannot fully control its money quantity which become an endogenous variant and subject to the change in the official reserve(sun, 2000). According to the current laws, regulations and policies as well as the actual implementation, partial convertibility of RMB has been realized in the capital account, but the capital movement in the theories such as the M-F model and the "Impossible Trinity" refers only to the short-term financial capital movement caused by the spread between home and foreign interest rates. It's such financial capital that consists the main target of China's foreign exchange control. According to the "Impossible Trinity", the stability of fixed exchange rate and the independence of monetary policy coexist if such financial capital is in absolute control, while the M-F model tells us that the coexistence between the stability of fixed exchange rate and the independence of monetary policy is not ensured even if such financial capital is in absolute control. The practice and experience of our monetary policy supports the conclusion of the M-F model (Ping Xie and Xiao Pu Zhang, 2002). With Krugman making suggestions for the post-crisis East Asian countries to control capital and advocating "the study from China", the People's Bank of China was afflicted at the increase in the money supply hardly effective to defeat the deflation due to the contraction of trade surplus and the decline in the official increase. In 1998 and 1999, deflation emerged in the Chinese economy with CPI declined by 0.8% and 1.4%, respectively, while the increase of the official reserve amounted to only USD6426 and 8505 million, rather low in the history. This margin was lower than the expectation and made it difficult to successfully implement the plan to increase the money supply.

## The Left Edge Solution of the "Impossible Trinity"

Just as illustrated in the left edge of the "Impossible Trinity", the independence of the monetary policy may be realized if the stability of exchange rate is sacrificed. While the M-F model tells us that the independence of the monetary policy may be realized under the floating exchange regime, regardless the mobility of capital. Therefore, the left edge solution is only a special case of the M-F model. Taking full capital movement as an example, when the central bank tighten up money supply and increase the interest rate to control the aggregate demand, foreign capital will be attracted and home currency appreciated, while the official reserve undergoes no change for the lack of foreign exchange interference of from the central bank; In addition to the appreciation of the home currency causing the net export to decrease in the end, the increase in the interest rate will leads to the down turn of investment, thus the aggregate demand will be contracted and the monetary policy takes effect. So, it seems that the left edge solution of the "Impossible Trinity" does exist. In the case study, however, Frankel, among others, none of the countries enjoys the independence of monetary policy with the exception of the largest 4 or 5 ones, no matter they adopt fixed or floating exchange rate regime (Frankel, Schmukler and Servén, 2002); Surprisingly, some sample analysis even shows that certain countries which adopt floating exchange rate regime are not as independent as the ones which adopt fixed exchange rate regime. Why most of the countries with the floating regime "enjoys" no independence of monetary policy?

Dornbusch drew a conclusion that exchange rate overshooting arises from the change of monetary policy under floating exchange rate regime, on the basis of the M-F model and several assumptions such as the rational expectation, the stagnant response of the production sector to the price change and the quick response of the monetary sector the price change. Such overshooting can lead to instability which may cause the improper allocation of home and foreign resources as well as the excess speculation in the foreign exchange market, thus disordering the impact mechanism of exchange rate fluctuation on the aggregate demand and the central bank will have to interfere the excessive exchange rate fluctuation with the independence of monetary policy gained at the price of exchange rate stability. For example, Japan, our neighbor, is a publicly accepted country under floating exchange rate regime, but it's central bank bought US Dollars as much as 150 billion just in the period from January to November in 2003 in order to prevent the excessive appreciation of Japanese yen against US dollar. Therefore, the countries practicing floating exchange rate regime cannot "enjoy" the theoretical independence of monetary policy without consideration of the external factors.

The following part introduces the exchange rate overshooting with the help of the said M-F model:

$$y = \delta(s+p^*-p) + \gamma y - \theta i + g \quad (4)$$

$$m = \phi y - \lambda i \quad (5)$$

$$\delta(s+p^*-p) - \alpha y + k(i-i^*) = 0 \quad (6)$$

$k(i-i^*)$  in equation (6) represents the balance of the capital account, where  $i-i^*$  is the spread between the home and foreign interest rates,  $k$  is the sensitivity of the balance of the capital account to the spread between the home and foreign interest rate, which infinite under the condition of full capital mobility.

The national income undergoes no change at the beginning of the increase in the money supply the whole of which is absorbed by the decline in home interest rate. Equation (6) reveals that the large scale of capital outflow and the sharp depreciation of home currency is caused by the decline in home interest rate. From equation (4) we can see the decrease of home interest rate and the depreciation of home currency are sure to cause the increase of the national income, while from equation (5) we can see the recovery of interest rate will occur as the national income increases. The exchange rate will decrease according to the interest rate parity. The market participants are rational in Dornbusch's model and exactly predict the ultimate result of the exchange rate change at the beginning of the monetary policy execution, thus the expected exchange rate is adjusted to the ultimate level instantly with the sharp devaluation of the spot rate followed by a gradual appreciation, i.e., the exchange rate overshooting refers to the phenomenon that the instant adjustment of the spot rate exceeds the long-term equilibrium level. Such a theory is considered to have reflected the facts of the repeated fluctuation in the foreign exchange market, providing the basis for the floating regime countries to interfere with the market.

The positive role that the stability of exchange rate plays on international trade and investment makes the developing countries as well as the emerging market ones try every means of management even if they publicly declare the exercise of floating exchange rate, with the behavior of "the fear of floating" and the monetary policy not dedicated to the home economic cycle. Therefore, the floating exchange rate regime is not a sufficient condition for the independence of the monetary policy. The monetary policy not independent in open economy is very common in the real world, which is called "the open economy dilemma". Since the change of independence of the monetary policy is not subject to the exchange rate regime (floating or fixed) in the open economy, the independence of monetary policy cannot serve as the basis for choosing the exchange rate regime.

### **Outside the "Impossible Trinity"**

If we accept the conclusion of common dependence of the monetary policy in the open economy, the anti-economic cycle measures should not rely too much on monetary policy in the world economy which actually is closed economy, and the independence of monetary policy cannot serve as the choice of exchange rate regime. We have to take into account the effect of the fiscal policy if we still want to use the performance of anti-economic measures under different exchange rate regimes as the key criteria for choosing a proper regime.

According to the M-F model, if fixed exchange rate regime is adopted, the stronger capital mobility will mean the better effect of the fiscal policy; The fiscal policy will be fully effective under full mobility of capital mobility, and absolutely ineffective under entire capital immobility. If floating exchange rate regime is adopted, the stronger capital mobility will mean the worse effect of the fiscal policy; The fiscal policy will be absolutely ineffective under full mobility of capital mobility, and fully effective under entire capital immobility. We tend to choose the fixed regime if we use the effect of the fiscal policy as the criterion. A wrong conclusion may arise from the choice of exchange rate regime on the basis of the "Impossible Trinity" which just deals with the relationship between the fixed exchange rate regime and the independence of the monetary policy and does not cover all the other elements necessary for the choice of the exchange rate regime.

Besides the policy effects of the anti-economic measures, the merits and demerits of the floating and fixed exchange rate regime can be examined from several aspects. For example, the floating regime may help shielding from the external impact with the exchange rate determined by the market itself, featuring, among others, more transparency without the need to maintain a large sum of official reserve and providing "the incentives for hedging" to stimulate the development of the foreign exchange market and prevent the currency fluctuation, while such a regime is not favorable for the international trade and investment and the speculating and arbitraging activities may cause the exchange rate to depart from the economic fundamentals, thus the negative effects to the economic development may arise from the independent monetary policy without proper regulation. On the other hand, the fixed regime can reduce the uncertainty of the exchange rate fluctuation and cut down the trading cost and risk, favorable to the international trade and investment; The exchange rate can be seen as a nominal anchor enhancing the trust of the public toward the anti-inflation policy of the central bank. Such a regime, however, may be subject to some instability in face of continuing external impact, and certain costs have to be born to maintain the fixed exchange rate. The main reflections are the frequent interference from the central bank in the foreign exchange market, the financial costs arising from the sterilization and the efficiency loss possibly caused by the capital control.

The choice of exchange rate regime is a long-term regime arrangement, the most fundamental and important of which is to be suited to the long-term targets of the economic growth. Theoretically, it's the economic regime that exerts significant influence on the long-term trend of the economic growth, while the economic policy just serves to smooth the economic cycle with short-term effects. The following is a description of difference between the economic regime and policy in the long run, based on Fig.2:

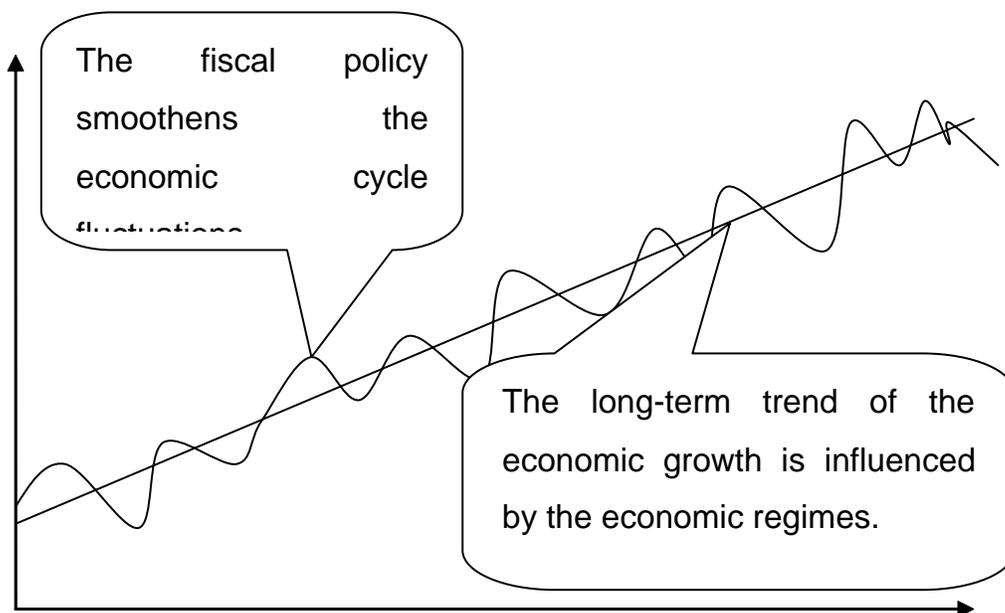


Fig.2 THE ROLE PLAYED BY THE ECONOMIC SYSTEM AND POLICIES IN THE LONG RUN

The exchange risk transferred from the private sector to the government under the fixed exchange rate regime reduces the market uncertainty and trade cost, favorable to the international trade and investment as well as the reasonable allocation of the economic resources, thus the trend of economic growth is enhanced in the long run. It's shown from the history that the high mobility of the global capital facilitated the reasonable allocation of the global capital and favored the economic growth under fixed exchange rate regimes such as the gold standard and the Bretton Woods system (Obstfeld and Taylor,2002). While according to the recent research data of 153 countries during the period of 1970-2001, the average level of the regions under limited floating and pegged exchange rate regimes<sup>4</sup> placed the first and second in the real per capita GDP growth and the ratio of the import and export to GDP; At the same time, the limited floating regime featured the lowest inflation followed by the pegged one. Generally, the limited and the pegged regimes performs the best (Reinhart and Rogoff,2002). The end of the gold standard system was followed by the establishment of the Bretton Woods system and the collapse of the Bretton Woods system was then followed by the European currency mechanism developing to the present unified currency of euro. The evolution of the international currency system reflects the perseverant pursuit of the countries to the fixed exchange rate regime. Such a preference should not be explained with the psychological needs for stability, but the facilitating role of such a regime to the economic base.

## Conclusion

Based on the M-F model and Dornbusch's exchange rate overshooting model, the paper discusses the relationship between the monetary policy independence and the exchange rate regime and concludes that the "Impossible Trinity" cannot serve as the basis for China to choose the exchange rate regime because the independence of the

monetary policy is ensured by neither the floating exchange rate regime nor the full capital control. With the irreversibility of China's economic opening, our monetary policy is destined to be influenced and limited by the foreign economy, which means that the policy makers have to try every means to solve the problem rather than rely on certain exchange rate regime to avoid such a difficulty.

The "single, managed floating exchange rate regime" established in 1994 was compliant with the characteristics of our current economic system, the capacity of the our enterprises and the standards of our financial supervision. China's monetary policy has undergone the target conversion from anti-inflation to anti-deflation in the past 10 years and becomes increasingly mature and visible effects as a whole, although limited by the exchange rate regime. It's true that we have to improve the imperfect aspects of the RMB exchange rate mechanism such as the lack of healthiness in the exchange rate mechanism, the poor exchange rate risk consciousness of the enterprises and the residents, the lack of tools to avoid the market risks, which does not mean, however, the need to radically overturn the RMB exchange rate mechanism. With the further market orientation of China' economy, the exchange rate management skills of the policy makers are believed to be increasingly perfect.

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## End Notes

<sup>1</sup>It does not include the USD 45 billion of asset injection into the Bank of China and the China Construction Bank.

<sup>2</sup>The currency board regime, dollarization regime and the single currency regime can be called hard peg fixed exchange rate regime.

<sup>3</sup>As illustrated by the bottom edge of the "Impossible Trinity", the monetary policy should be an independent one in the fixed exchange rate regime if capital control is exercised completely, while the M-F model tells us that the freedom is still not ensured. Please see the following analysis for more details.

<sup>4</sup>It's classified according to the IMF standard.

# The Uncertain Factors in Weakening the Trade Effects on China of China-ASEAN FTA

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## Abstract

The Association of South-East Asian Nations (ASEAN) and China endeavor to speed up trade liberalization by making Free Trade Arrangements. Generally, the economic integration will promote trade and investment in the integrated market. In fact, there are several uncertain factors for the trade effects on China of the China-ASEAN Free Trade Area (CAFTA). Firstly, it is inevitable that countries involved will encounter a certain amount of barriers except tariff, for government have to take many kinds of measures to protect themselves in order to balance the relationship between FTA and the benefit of the country. Secondly, there is competition in the substitutes of goods between China and ASEAN members in the ASEAN market. Thirdly, there is competition in ASEAN market with other countries, which signed FTA with ASEAN, such as Korea, Japan, India and USA. These countries are ASEAN's major trading partners and are seeking further cooperation with ASEAN.

## Introduction

The Association of South-East Asian Nations (ASEAN) and China endeavor to speed up trade liberalization by making Free Trade Arrangements, apparently they have come to consensus that their joint development is to create greater benefits.

There are many viewpoints about the effects of trade liberalization. Some studies provide evidence that increasing openness of an economy has a favorable impact on economic growth (Grossman and Helpman, 1991; Romer, 1992, Frankel and Romer, 1999). A domestic economy that is more open to world trade may grow faster to have a positive impact on GDP growth (Jang C.Jin, 2004). Arivind Panagariya (2004) suggested that sustained growth cannot be achieved without rapid growth in trade, which requires either low or decline barriers to trade.

As one phase of trade liberalization, FTA has drawn lots of interests. In recent attempts to capture the effects of China-ASEAN FTA with gravity model, Yang Changzhi (2003) explored the trade potential in China-ASEAN FTA and pointed out that there is excess trade between China and ASEAN countries at present. It means that the FTA is deficient in trade potential and trade volume between China and ASEAN would not increase in future. So we should be cautious of building China-ASEAN FTA. Chen Wen (2003) indicated that the establishment of China-ASEAN FTA would put many of its members in more direct competition with China in export markets and in terms of attracting foreign investment.

In contrast, Benjamin A. Roberts (2004) used the results of the Gravity model explaining trade flows within China-ASEAN Free Trade Area (CAFTA), and exhibited that trading partners are likely to gain following formation of the FTA in 2010. Besides, convergence in China and ASEAN countries' income level would maximum their benefits. However, the model revealed a rather insignificant effect in terms of the potential trade creation that could result from the integration. Naohiro Yashiro and Kiyota Kozo (2002) used a computable general equilibrium (CGE) model, illustrating that there were likely to be net benefits for both China and ASEAN members from China-ASEAN FTA in 2010<sup>1</sup>.

What kind of standpoints is true about the trade effects on China of the China-ASEAN FTA? This paper aims to explain the uncertainty of trade effects in China-ASEAN integration. Section I is introduction. Section II gives a glance at the background of China and ASEAN integration. Section III analyzes the uncertain factors in weakening the trade effects on China of China-ASEAN FTA. Section IV concludes with an overall summary.

## **Background of China-ASEAN Integration**

### **The Process of China-ASEAN Integration**

ASEAN was founded in August 1967 with the signature of the Bangkok declaration by five original member nations (Indonesia, Malaysia, Philippines, Singapore and Thailand). In 1984, Brunei Darussalam was admitted as the sixth member. In 1995, Vietnam also joined ASEAN. Lao People's Democratic Republic and Burma became members in 1997. With Cambodia's admission in 1999 ASEAN expands to 10 countries. ASEAN has proved to be one of the most successful regional groupings in terms of regional cooperation (See Table 1).

Before the 1990s, there was no official relationship between the ASEAN as a grouping and China, although China had official relations with certain individual ASEAN member states on a bilateral basis. China pushed for official ties with the ASEAN grouping in 1990s. In 1991, China founded or recovered its diplomatic relations with all ASEAN members. In 1996, China was upgraded as a dialogue partner of ASEAN. In 2000, China initiated its will to establish a Free Trade Area (FTA) with ASEAN. In 2001, China formally put forward the proposal to establish FTA with ASEAN and got an active response. In November 2002, China and ASEAN signed Framework Agreement on China-ASEAN Comprehensive Economic Cooperation at the Sixth China-ASEAN Summit in Cambodia—it was a breakthrough in East Asia's regional economic co-operation as well as a milestone in China-ASEAN relations. In October 2003, China joined 'Treaty of Amity and Cooperation in Southeast Asia' (TAC), and bilateral relations are upgraded as 'a strategic partnership toward peace and prosperity'. China signed an agreement on Trading in Goods of the Framework Agreement on Comprehensive Economic Cooperation with ASEAN on 29 November 2004. The agreement is set to reduce and eliminate tariffs on trade in goods between the parties, and establish a mechanism to adjudicate ASEAN-China trade disputes. Tariff cuts started 1 July 2005, and will aim to axe duties on some 4000 types of goods to between zero and five percent by 2010 for the six most advanced ASEAN members, i.e., Brunei Darussalam and five original member nations. The four poorer member states—Laos, Vietnam, Cambodia, and Myanmar (Burma)—will have to comply until 2015. Notably, tariffs on several 'sensitive goods,' including important sectors such as sugar, iron, steel, and cars, will not be subject to the same steep tariff reductions. The objective of the China-ASEAN FTA agreement is to create a FTA by the year 2010. Thus the largest FTA in the world will be born. There are 1.8 billion people and GDP of USD 2 trillion in 2004 (See Table2 ). If plans work out, the integration will unleash tremendous economic energy, create business opportunities, promote trade, investment and development between China and ASEAN.

TABLE 1: SELECTED ASEAN INDICATORS (2003)

Country	Rate of growth of GDP (%)	GDP per Capita US\$	GDP per Capita in US\$ PPP* (US \$ PPP)	PPP Index**	Inflation Rate y-o-y average (%)
Brunei	3.2	12,971	15,051	1.2	-16.1
Cambodia	5.0	310	1,658	5.3	0.3
Indonesia	4.1	973	3,405	3.5	6.6
Lao PDR	5.9	362	1,799	5.0	15.5
Malaysia	5.3	4,198	9,579	2.3	1.1
Myanmar <sup>1)</sup>	5.1	179	1,364	7.6	36.6
Philippines	4.7	973	4,387	4.4	3.1
Singapore	1.1	20,987	22,962	1.1	0.5
Thailand	6.8	2,291	7,253	3.2	1.8
Viet Nam	7.2	481	2,477	5.1	3.1
ASEAN(Average)	5.0	1,266	4,042	3.2	4.8

Notes:

\*) 2003 figure: Computed using the PPP Exchange Rate, based on the IMF-WEO Database of April 2004, and using GDP nominal from FMSU Database.

\*\*) 2003 figure: Recomputed from the IMF-WEO Database, based on the GDP Share weight and the Total World GDP PPP as in the IMF-WEO Database of April 2004.

Source: ASEAN Statistics, available at <http://www.aseansec.org>

ASEAN-China trade has expanded rapidly since ASEAN accorded China Full Dialogue Partner status in 1996. Statistics from the Ministry of Commerce show that since 1990, ASEAN has become China's fifth largest trade partner, and China the sixth of the ASEAN. From 1978 to 2003, ASEAN's total trade with China increased by nearly 90 times with a bilateral trade amount of 78.2 billion dollars in 2003 (See Table 3), in which China exported US\$30.9 billion to ASEAN and imported US\$ 47.3 billion from ASEAN. Trade volumes in the first 10 months of 2004 hit US\$84.61 billion, up 35.2 per cent over the same period 2003.

TABLE 2: AN OVERVIEW OF CHINA-ASEAN FTA(2003)

	China	ASEAN	Total
Population( billion)	1.3	0.5	1.8
Country area (million KM)	9.6	4.5	14.1
GDP (billion USD)	1417.9	685.9	2103.8
Trade amount (billion USD)	851.2	789.7	1640.9
Main trade partners	Japan, USA, EU, Hong Kong, ASEAN	ASEAN, USA, Japan, EU, China	
GDP per capita (USD)*	1090	1265	2355

Notes: \* As a proxy, the combined GDP of ASEAN is computed as the sum of GDP of ASEAN Countries and the GDP per capita as GDP/number of population.

Source: Compiled from data from 1) ASEAN Finance and Macroeconomic Surveillance Unit (FMSU) Database; 2) ASEAN Statistical Yearbook, 2004; 3) China Commerce Yearbook, 2004

TABLE 3: CHINA'S FOREIGN TRADE WITH ASEAN COUNTRIES, 2002-2003

Country	2003			2002		
	Total	Exports	Imports	Total	Exports	Imports
Brunei	346167	33892	312275	262870	21058	241813
Myanmar	1077247	907713	169534	861712	724823	136889
Cambodia	320648	294646	26001	276109	251559	24550
Indonesia	10229050	4480749	5748301	7928320	3426906	4501414
Laos, PDR	109436	98235	11202	63954	54305	9649
Malaysia	20127823	6141149	13986674	14270528	4974538	9295989
Philippines	9400103	3093808	6306295	5259515	2042322	3217193
Singapore	19352280	8868525	10483755	14018086	6965667	7052419
Thailand	12655291	3828233	8827058	8560668	2958410	5602258
Viet Nam	4634314	3178517	1455797	3264146	2148864	1115282
Total	78252359	30925467	47326892	54765908	23568452	31197456

Notes: Value is in US\$ 1000.

Source: China Commerce Yearbook, 2004

### The Momentum of China-ASEAN Integration

China has enjoyed one of the highest rates of growth in the world over the past decades. WTO accession makes Chinese economic system more transparent accountable and also potential, thus more attractive to the investors. The experience of China's WTO accession shows that China has high capacity to meet the challenge from liberalization of the market. In recent years, China has been going up and up to the 3rd place in the world trade in 2004. China's sustained and fast economic growth maintains a vigorous momentum of interregional trade in Asia. However, China's foreign trade is still faced with challenges. There is an obvious gap between China and other strong trade countries. For instance, the way in the trade increase is rough and unrefined with quality and efficiency to be further improved; export at a relatively low level with quite a few products of no high added value. China is facing an increasing pressure from resources and environment. The economic integration is the channel of seeking resources.

ASEAN has abundant natural resources. Its members produce about 95 per cent of the world's abaca, 85 per cent of its natural rubber, 83 per cent of its palm oil, 67 per cent of its tin and copra, 60 per cent of its copper along with substantial quantities of sugar, coffee, timber, various fruits, rice and minerals.<sup>ii</sup> The region is a developing and free market with a strong potential demand for consumer goods, capital goods and technical skills. ASEAN's key position in the Asia-Pacific region and its important economic weight have made it an essential partner for China in Asia. China's trade with its Southeast neighbors has prospered since 1990, enjoying a 20 per cent annual average rise.

ASEAN countries are China's neighbors and most ASEAN countries are developing countries as well. Geographic closeness and similar culture backgrounds made the economic relations between China and ASEAN countries steadier. The great consumer market of the FTA will help ensure the fast growing momentum of the two economies.

China-ASEAN Free Trade Area reduced tariff rate. Table 4 indicates that the ASEAN average tariff rate was approximately 2.68 percent in 2003, quickly down from 3.25 percent in 2002 before the start of the tariff reduction program. And the decreasing trend of average tariff would keep on.

TABLE 4: AVERAGE TARIFF RATES OF ASEAN ECONOMIES\*

	Average AFTA Tariff Rates (%)					
	1998	1999	2000	2001	2002	2003
Brunei	1.35	1.29	1.00	0.97	0.94	0.87
Indonesia	7.04	5.85	4.97	4.63	4.20	3.71
Laos	5.00	5.00	5.00	5.00	5.00	5.00
Malaysia	3.58	3.17	2.73	2.54	2.38	2.06
Myanmar	4.47	4.45	4.38	3.32	3.31	3.19
Philippines	7.96	7.00	5.59	5.07	4.80	3.75
Singapore	0.00	0.00	0.00	0.00	0.00	0.00
Thailand	10.56	9.75	7.40	7.36	6.02	4.64
Vietnam	6.06	3.78	3.30	2.90	2.89	2.02
ASEAN	5.37	4.77	3.87	3.65	3.25	2.68

Note:

\* Under the framework agreement on economic cooperation (2002), China and ASEAN agreed to first carry out an 'early harvest package' over three years. According to the plan, over 500 kinds of commodities, mainly agricultural produces, will have reduced duties between zero percent and five percent by 2006.

Source: ASEAN Secretariat, available at <http://www.aseansec.org>

In the case of the FTA, the reductions in trade barriers increase the competitiveness of imports from the other parties. Consequently, any resulting rise in imports from parties of the agreement may displace either domestic production or imports from other countries. The displacement of domestic production is trade creation because it results in a net increase in trade. And the displacement of imports from other countries is trade diversion. The China-ASEAN FTA will allow all members to enjoy the benefits from trade effects, that is, enjoy more favorable trade and investment treatment than the World Trade Organization can offer. A figure released by the ASEAN Secretariat shows that both export and economic growth will see a positive growth. China's export to ASEAN will increase by 55.1% while ASEAN' export to China will increase by 48% if the FTA is established.

However, we should pay more attention to the uncertain factors influencing the trade effects on China of China-ASEAN FTA.

## Uncertain Factors

### **It is Inevitable that China will encounter a Certain Amount of other Barriers except for Tariff**

Financial crisis in late 1990s damaged ASEAN's economy, and accordingly, a large amount of outflow of foreign investments from ASEAN weakened its competitiveness. Meanwhile, China keeps a high economic growth and its product competitiveness is greatly enhanced. China's rising strength in competitiveness and export power is being felt the world over, with talks of China being the 'factory of the world', and a 'black-hole for FDI'. According to the Wall Street Journal, Southeast Asia receives only 10 percent of direct US investment, falling from nearly 75 percent just 10 years ago. Instead, China attracts 80 percent of resources from the US companies. The rising influence of the Chinese economy with its consequent short-term and long-term impact on the economies in ASEAN has caused great concern, and ASEAN members have a strong incentive to protect its disadvantageous products when they face competition from the fast growing markets in China. For example, Indonesian union groups, however, called China-ASEAN integration a 'disaster', warning that a flood of cheap Chinese goods into Indonesian markets would lead to hundreds of thousands of lost jobs. China takes obvious advantages in textiles, clothing, shoes, foods, corn, architectural materials, home electric appliances, and has a potential advantage in machinery-electric equipments, precision instruments, clock and watch, vehicle, metal products and chemical products. Malaysia has begun to impose high anti-dumping tariffs on China's bicycles. After each of the ten ASEAN members formally recognized China as a full market economy, it was far harder for them to impose anti-dumping duties against China's export products. So there must be other forms of trade barriers, which would affect the trade effect between China and ASEAN.

Plus, large economic disparities between the ASEAN members also caused various forms of trade protection. In order to survive, firms of ASEAN members will seek the best business environment, over which they have little control. Thus the search for the favorable business environment will prompt governments to make efforts to provide it. In this way, governments of ASEAN members will be drawn into competition. In the case free trade agreement brought keen competition and did not adapt to industry development strategy of one country, the government would play a role of harmonizer between FTA and the benefit of the country. There are divergences of ASEAN trade policies, for example, Singapore and Thailand is more open in terms of trade policy; Malaysia takes import-substitution and anti-dumping policies; Laos, Myanmar and Cambodia are still restricted by the traditional non-market systems and cannot bear the impact from trade liberalization. All these factors may lead to frictions between China and ASEAN.

It is believed that the liberal trade order and Multilateralism is strengthening, the respective countries' policies are being regularly reviewed, the dispute settlement arrangements have been strengthened, and the economic integration tends to weaken the autonomy of involved governments, especially their power to control at the border the in-and outflow of goods, services, factors of production, and so on. But involved governments face the dilemma of being torn between strengthening free trade policies and preserving national autonomy. Protectionism in major trading countries is rising and the regional market would become too complex to forecast.

**There is Competition in the Substitutes between China and ASEAN Members in the ASEAN Market**

In ASEAN market, export products of China and ASEAN 6<sup>iii</sup> are substitute or complementary.

According to statistics, 20 major export commodities accounted for 61.7 percent of China's export volume to ASEAN 6, and 20 major import commodities accounted for 67.9 percent of China's import from ASEAN 6 in 2003. Among the twenty major commodities, 15 kinds of products were different and accounted for 32.3 and 31.7 percent of China's total export and import volume to and from ASEAN 6 respectively.<sup>iv</sup> It means that although China and some ASEAN members have similar resource endowment, similar foreign trade strategy, similar export pattern and economy development strategy, they are complementary in export products to some extent.

Especially, we pay close attention to the competition in substitutes between China and ASEAN members in the ASEAN market.

According to the classification of World Bank, Cambodia, Laos, Myanmar and Vietnam are Low Income Economies; Indonesia, Thailand and Philippines are Low Middle Income Economies; Malaysia is a Middle Income Economy; and Singapore and Brunei are High Income Economies (Benjamin A. Roberts, 2004). Basing on the H-O factor endowments model, a country shall specialize in and export products, which uses intensively abundant factors of production. The less developed ASEAN members should specialize in unskilled labor-intensive, natural resource-intensive products, such as textiles, footwear, agricultural and mineral products. China's industry structure is similar to that of Indonesia, Thailand, Malaysia and Philippines. As a result there would exist drastic competition and substitute between export of China and ASEAN members, especially in horizontal intra-industry trade.

In China-ASEAN trade, ASEAN is running a large bilateral trade surplus with China (4.85 billion USD in 2001) and the amount of the surplus keeps increasing in recent years. China's export of agricultural goods to ASEAN has the downward trend recently, and China's deficits are increasing in the agricultural trade. Except for its abundant agricultural produces, China has been an important exporter of machinery and electrical equipment, garments and accessories, high-tech products, textile raw materials and products in world. As a result of FTA, Chinese products entered ASEAN market in a large scale while some ASEAN's advantageous products enter into Chinese market.

Differences in trade specialization between China and ASEAN are illustrated by the index of revealed comparative advantage (RCA)<sup>v</sup>:

$$RCA = \left( \frac{X_{ij}}{X_i} \right) - \left( \frac{M_{ij}}{M_i} \right)$$

where

$X_{ij}$  is the amount of export to ASEAN of products j of country i;

$M_{ij}$  is the amount of imports from ASEAN of products  $j$  of country  $i$ ;

$X_i$  is total volume of exports to ASEAN of country  $i$ ;

$M_i$  is total volume of imports from ASEAN of country  $i$ ;

The export structures of China and ASEAN 6 are similar to some extent, especially in ASEAN market. ASEAN 6's biggest gains are textiles and apparel, electrical appliances and machinery, and other manufactures. In 2003, ASEAN 6's top 20 export products to ASEAN account for 61.2 percent of its total export to ASEAN, and China's top 20 export products to ASEAN market account for 61.7 percent of its total export to ASEAN (See Table 5). In the leading 20 products of China and ASEAN 6 exporting to ASEAN, 11 kinds of the products are the same, such as office machines, Petroleum oils, electrical equipments, and telecommunications equipments, etc. The 11 kinds of products account for 51 percent of China's total export and 52.3 percent of ASEAN 6's total export to ASEAN market. The figures indicate that ASEAN 6 is an important competitor in ASEAN market for China especially in the products China and ASEAN 6 both export to ASEAN in large quantity. The RCA analysis indicates China's strength in the office machinery, telecommunication equipments and weakness in crude oil and some labor-intensive products, which had been the absolute advantages of China (see Table 6). China's exports to ASEAN are dominated by low-tech goods (including toys, furniture, plastics, steel, textiles, garments, and footwear), although engineering and electronics have grown rapidly recently. China would lose market share compared to ASEAN members' exports in ASEAN if its export structure remains the same as it is at present.

TABLE 5: TWENTY MAJOR EXPORT COMMODITIES OF CHINA AND ASEAN TO ASEAN MARKET BY 3 Digits-SITC CODE (2003)

China				ASEAN 6			
SITC	Commodities	Value	Share	SITC	Commodities	Value	Share
759	Parts& accsories for office machn& autm data proc	3,775	13.6	776	Transistors, semiconductors devices, valves, etc	16,858	17.5
764	Tlecomncnacs eqpmnt, NES & parts	2,407	8.7	759	Parts& accsories for office machn& autm data proc	7,454	7.7
776	Transisiors, semiconductors devices, valves, etc	1,885	6.8	752	Automatic data processing machines	6,439	6.7
752	Automatic data processing machines	1,804	6.5	334	Petroleum oils and products	5,192	5.4
334	Petroleum oils and products	1,069	3.9	764	Tlecomncnacs eqpmnt, NES & parts	4,287	4.4
772	Eltrcal switcher relays, circuits, NES.	975	3.5	772	Eltrcal switcher relays, circuits, NES.	3,302	3.4
778	Eltrcal machinery & apprtus, NES.	779	2.8	333	Crude petroleum	2,556	2.6
771	Eltrcal power mach and parts	519	1.9	778	Eltrcal machinery & apprtus, NES.	2,391	2.5
333	Crude petroleum	470	1.7	716	Rotating Electric Plant& Parts Thereof, N.E.S.	1,206	1.2
716	Rotating Electric Plant& Parts Thereof, N.E.S.	452	1.6	761	TV receivers	1,125	1.2
044	Maize unmiled	416	1.5	784	Parts& accsories for tractors', mtr cars & O mtr vehc	1,074	1.1
699	Manufactures Of Base Metal, N.E.S.	364	1.3	511	Hydrocarbons, N.E.S & Their Derivatives	1,048	1.1
894	Baby Carriages, Toys, Games & Sporting Goods	340	1.2	771	Eltrcal power mach and parts	831	0.9
893	Articles, N.E.S. Of Plastics	317	1.1	723	Civil Enginring & Contractors' Plant & Equipment	818	0.8
845	Artcls of apparel of textile fabrics	286	1.0	422	Fixed vegetables fats & oils other than soft	815	0.8
652	Cotton fabrics, woven	271	1.0	898	Musical Instrumnts, Recrds, Tapes & O Sd Recordings	803	0.8
523	Metallic Salts And Peroxyslats Of Inorganic Acids	255	0.9	874	Measuring/Analysing/Controlling Instrmnts & Apprtus	754	0.8
057	Fruit & Nuts (Not Including Oil Nuts), Frsh or Drd	240	0.9	893	Articles, N.E.S. Of Plastics	742	0.8
653	Woven fabrics of madmade textile materials	238	0.9	512	Alcohols, Phenols, Phenol-Alcohols & Derivatives	734	0.8
773	Eqpmnt for distributing eltrcity	238	0.9	728	Machnry/Eqpmnt Speclzd For Particlr Industries & Prts	710	0.7
	20 Major	17,101	61.7		20 Major	59,139	61.2
	Others	10,634	38.3		Others	37,419	38.8
	Total	27,734	100.0		Total	96,557	100.0

Note: Value is in US\$ Million; Share is in %.

Source: ASEAN Trade Statistics Database, available at <http://www.aseansec.org>

TABLE 6: REVEALED COMPARATIVE ADVANTAGE COMPARISON OF CHINA WITH THE ASEAN 6 IN ASEAN MARKET, 2003

SITC	Commodities	China RCA	ASEAN 6 RCA
759	Parts & accessories for office machn& autm data proc	0.069	-0.04
776	Transistors, semiconductors devices, valves, etc.	-0.085	-0.042
334	Petroleum oils and products	-0.007	-0.018
772	Eltrcal switcher relays, circuits, NES	0.016	0.006
333	Crude petroleum	-0.049	-0.017
764	Telecomncations eqpmnt, NES & parts	0.073	0.009
752	Automatic data processing machines	0.001	0.030

Note:

1) Value is in US\$ Million.

2) The ASEAN 6(Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand) accounts for most trade volume of the ASEAN 10, so we choose the trade volume to substitute that of the ASEAN 10

Source: ASEAN Trade Statistics Database, available at <http://www.aseansec.org>

### There is Competition in ASEAN Market with other Countries which Sign Free Trade Agreements with ASEAN

ASEAN has negotiated on FTA not only with China, but also with Japan, India and USA respectively (See Table 7). It means Chinese export products are facing competition with foreign products drastically in the ASEAN market. In fact, ASEAN's major trading partners (See Table 8) are seeking further cooperation with it and struggling to have better access to ASEAN market, for they knew the value of the ASEAN market well. It will weaken the advantages of China in ASEAN market.

TABLE 7: SOME BILATERAL AND SUB-REGIONAL FTA OF ECONOMIES IN ASIA-PACIFIC AND EAST ASIA

Status	Economies and the name of the FTA	Year
Signed	ASEAN Free Trade Area (AFTA)	1993
	Singapore-New Zealand Closer Economic Partnership Agreement (SNCEPA)	2001
	Japan-Singapore Economic Partnership Agreement (JSEPA)	2002
	Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2002
	China-ASEAN Trading in Goods of the Framework Agreement on Comprehensive Economic Cooperation with ASEAN	2004
	Singapore-USA	2003
	Framework Agreement on ASEAN-Japan Comprehensive Economic Cooperation	2003
	ASEAN-India	2003
	Japan-Thailand; Japan-Malaysia; Japan-Philippines	2003
Proposal/study	ASEAN-China, Japan and Korea	2000
	Five countries in Pacific (USA, Singapore, New Zealand, Australia and Chile) FTA	1998
	Korea-Thailand	2001
	Singapore-Hong Kong	2001

Source: Lu Jianren (2004)

Japan, India and ASEAN announced trade deals of their own. Japan, ASEAN's largest trading partner and investor, announced that it will start tariff-cutting talks with ASEAN in April 2005, with the objective of liberalizing trade in goods by 2012. India signed a comprehensive agreement with ASEAN called the 'ASEAN-India Partnership for Peace, Progress and Shared Prosperity', which plans to establish an ASEAN-India free trade area by 2011 for five of the six advanced ASEAN members and by 2016 for the Philippines and the four less advanced member states. The United States has been the largest export market and major source of foreign investment of ASEAN 6 (Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand). The significant US-ASEAN 6 bilateral trade is largely due to a substantial inter-industry trade owing to strong economic complementarities. ASEAN 6 countries are major exporters of such goods as petroleum, rubber, tin, textiles, garments and other labor-intensive products, and those items are imported by the US. The US in turn exports capital-intensive and technology-intensive goods such as chemicals, electrical and non-electrical goods. Although a recent study by the Asia-Pacific Economic Cooperation (APEC) business advisory group concluded that the US stands to be the biggest loser if the ASEAN+3 free trade area<sup>vi</sup> is successfully established, the US-ASEAN Business Council has long supported the ASEAN Free Trade Area and other initiatives to promote regional economic integration. The Council knew well that with ten integrated markets with a population exceeding half a billion people, ASEAN will be much more attractive than it would as a collection of relatively small, segmented markets.

Just as mentioned in table 7, the countries having signed FTA agreements with ASEAN economies or in the process of establishing FTA with ASEAN economies, such as Korea, Japan, India and USA, would be competitive rivals in ASEAN market with China. The trade effects of China-ASEAN FTA not only depend heavily on whether an ASEAN member is in a complementary or competitive relationship with China, but also depend on competition of China and ASEAN's other trading partners. If the composition of their export and import items is similar to that of China, the relationship is substitute and competitive in the ASEAN market. Until now it seems that China is not in a competitive position with the advanced countries such as USA, Japan and EU in ASEAN market, because export products of the advanced countries to ASEAN are mostly capital-intensive and technology-intensive, and the leading export products of China are labor-intensive and land-intensive. But competition is coming. If China countries want to sustain its economic development, it must make adjustments to the industrial structure. Thus with the upgrading and optimizing of China's industry structure, the export products pattern of China is changing accordingly. China has experienced ceaseless optimization of the export product structure with the products of highly added value and high-techs to become the new growth point in pushing forward the foreign trade and economy. The share of Capital-intensive and technology-intensive products is also rising. New competition with advanced countries arises.

TABLE 8: ASEAN IMPORTS BY COUNTRY OF ORIGIN

Country of Origin	1995		1999		2003	
	Value	Share (%)	Value	Share (%)	Value	Share (%)
South Korea	11,345.6	3.56	12,277.9	4.36	15,036.6	4.18
China	7,129.7	2.24	12,331.7	4.38	28,222.9	7.85
Japan	78,535.2	24.65	51,466.0	18.29	58,009.2	16.14
EU-15	46,392.8	14.56	34,711.9	12.34	42,744.7	11.89
USA	46,435.1	14.58	45,990.9	16.31	49,845.1	13.87
Total imports of ASEAN*	318,554.8	100.0	281,346.0	100.0	359,320.0	100.0

Notes: \*) Exclude Lao PDR and Viet Nam; data are not available

Source: ASEAN Trade Statistics Database available at <http://www.aseansec.org>

## Conclusion

The objective of this paper is to analyze uncertain factors in weakening the trade effects on China of China-ASEAN FTA. There are three important uncertain factors: other barriers except for tariff; competition in the substitutes between China and ASEAN members in the ASEAN market; competition from other countries signing FTA

agreements with ASEAN members. It is well known that it is possible to benefit, but it doesn't guarantee that each party involved will benefit as expected and enjoy the same benefit. The uncertain factors should not be ignored.

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## End Notes

<sup>i</sup> Xiang Tiemei (2004). Analysis of Trade Relations in China-ASEAN FTA. 86-87 .Master's thesis. Beijing: Technology and Business University.

<sup>ii</sup> Figures are cited from An Overview of ASEAN; the ASEAN Information Series No.1, P.4

<sup>iii</sup> ASEAN 6 are Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand. The trade volume of the other four countries (Cambodia, Darussalam, Lao People's Democratic Republic and Vietnam ) with China is too small to calculate.

<sup>iv</sup> Source: ASEAN Statistical Yearbook, 2004

<sup>v</sup> There are other forms of RCA index such as  $RCA_{ij} = (X_{ij}/X_i)/(X_{wj}/X_w)$  where  $X_{ij}$  is the amount of export to world of products j of country i;  $X_i$  is total volume of exports to world of country i;  $X_{wj}$  is the amount of exports of products j of world;  $M_i$  is total volume of exports of world. It indicates that products j of country i is of stronger comparative advantage when  $RCA_{ij} > 1$  and of comparative disadvantage when  $RCA_{ij} < 1$ .

<sup>vi</sup> A free trade zone to be established among the ASEAN countries with China, Japan and Korea.

# Understanding Competitive Advantage in the EDA Industry: The Role of Indian Subsidiaries of MNCs

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## Abstract

This study examines the drivers of competitive advantage within the EDA industry. Specifically, the authors examine the industry structure and find that three firms controlled more than eighty per cent of the industry. The findings from the field exploratory study of the Indian subsidiaries of these three firms reveal that their roles related to the following: developing tools with emphasis on lean production; developing “yet-to-be-commercialized” tools; developing support centres for tools with focus on cost-cutting. Through their strategic actions relating to the capabilities and customer relationships that the subsidiaries of MNCs developed and deployed, they could establish advantageous competitive positions utilizing low cost locational advantage and local talent aiming to achieve economies of scope.

## Introduction

The service sector's share of international investment has grown rapidly. With the increasing importance of services firms there is a need to develop an understanding of the competitive advantage as well as the role of foreign subsidiaries in the internationalization of such firms. This paper focuses on services firms in a technology-intensive industry known as the Electronic Design Automation or EDA industry. EDA is an acronym coined for Electronic Design Automation and refers to the category of tools used for designing and producing electronic systems ranging from printed circuit boards (PCBs) to integrated circuits (ICs). It is a complex and highly leveraged technology that enables the electronics industry to handle design complexity; enabling faster time-to-market; higher productivity, accuracy & efficiency. The term EDA is also used as an umbrella term for computer-aided engineering, computer-aided design and computer-aided manufacturing of electronics in the discipline of electrical engineering.

The EDA industry is essentially a service industry in the sense that its manner of growth depends on the direction and strength of the industry it serves, viz. the semiconductor manufacturing industry. The semiconductor industry has always been and will always be the primary motivator of growth in the EDA industry. The semiconductor industry impacts the EDA industry by providing new capabilities that support the fabrication of increasingly smaller geometries of transistors in accordance with Moore's law. Please refer Figure 1 for a diagrammatic representation of the value chain of the electronic industry.

It is the semiconductor industry that appropriates most value in the value chain, which is in accordance with the theory that generally, in any innovation, the customer appropriates most value (please see Figure 2), followed by the innovator and the imitators.

## Why This Study on the EDA Industry?

The global EDA industry has been performing exceedingly well in terms of profit margins and has managed to sustain a phenomenal pace of growth. The EDA industry has been one of the few industries that have been generating tremendous returns for its small size. EDA companies in U.S generated revenues of more than \$3.7 billion in 2003-2004, and the acquisitive nature of the industry keeps both investors and bankers interested in its growth. Indeed, venture capital firms invested \$132 million in EDA companies in 2003 and more than \$100 million in 2005.

Industry leaders like Synopsys and Cadence have also set up design outsource centers or tool providers in countries like India, China and Russia to exploit the low cost advantage. As the financial data of top ten EDA companies reveals (see Table 1 and 2), the performance of the Big Three is quite impressive compared to that of the EDA industry.

TABLE 1: FINANCIALS OF TOP 10 EDA COMPANIES, 2001

Company	Total 2002 Revenue	% of 2001	Total 2002 Net Income	Total 2001 Net Income
Cadence	1293	90 %	72	141
Mentor Graphics	596	99 %	(14)	31
Synopsys	999	143 %	(180)	61
Altium <sup>1</sup>	26	91 %	0+	7
Ansoft	48	92 %	(4)	2
Magma	71	182 %	(1)	(31)
Nassda	37	136 %	7	3
Synplicity	46	93 %	(3)	1
TransEDA <sup>2</sup>	6	59 %	(19)	0+
Verisity	53	136 %	13	5

**Figure 1 – Ten public EDA Companies’ Yearly Financial Performances<sup>3</sup>**

<sup>1</sup> Exchange rate used: Australian dollar x 0.53 = US\$

<sup>2</sup> Exchange rate used: Pound x 1.43 for 2001 = US\$. Exchange rate used: Pound x 1.60 for 2002 = US\$.

<sup>3</sup> For companies whose fiscal years did not end on December 31, 2002, the four quarters’ results prior to the last reported quarter, were used here. (Note – all \$ in U.S. millions).

TABLE 2: FINANCIALS OF TOP FIRMS VS INDUSTRY

	Synopsys	Cadence	Mentor Graphics	Industry
Revenue	\$1.2 bn	\$1.1 bn	\$0.7 bn	
Price/Sales	3.7	2.67	1.21	1.12
R&D/Sales	24.9%	25.2%	27.5%	20.2%
ROE	11.42%	-0.27%	-8.26%	9.04%
Market Capitalization	\$3.9 bn	\$ 3.3 bn	\$0.75 bn	

## Questions We Asked

### What is the Basis of Competitive Advantage-Future Outlook of Industry?

In the industry value chain, there is constant pressure on chip makers to come up with something better and even cheaper than what re-defined state-of-the-art only a few months before. Chips makers must constantly go back to the drawing board to come up with superior goods. Even in a down market, weak sales are seen as no excuse for not coming up with better products to whet the appetites of customers who will eventually need to upgrade their computing and electronic devices. The EDA industry in a state of flux as of now, with a number of changes occurring in traditional methodologies, on both front and back end, trying to keep up with the increasing design complexity.

### Why Internationalization? - Sector Growth

There were double digit growth return bookings in 2003 while service revenues bottomed out. At the same time, major players were weighed down by legacy or mature products and semiconductor recovery is expected to be anemic or profitless. Strengths were the earnings predictability and the pricing power enjoyed by the sector. We wished to examine the role of foreign subsidiaries, specifically Indian subsidiaries of EDA firms.

### **Methodology**

The data for the study was initially culled out of all secondary sources of information through an extensive search of the worldwide web, as well as from technical and management books, journals and magazine articles. With a comprehensive database of the EDA industry on hand, structural analysis was carried out to understand the structure of the industry. Then key success factors in the industry were short-listed based on the study of core competence of the global majors in EDA - Synopsys, Cadence and Mentor Graphics, as these were more or less representative of the industry as a whole (three-firm concentration ratio of 80%). Many other insights (for example, on value appropriation) on the industry were gained through using models for technology-intensive markets based on Robert Grant's work on Contemporary Strategic Analysis (1998).

The sample used for primary research basically consisted of the Indian subsidiary of the global leader Synopsys, as well as Cadence and Mentor Graphics. Field visits were undertaken to understand how software development takes place and the functioning of these organizations. Interviews were also conducted with key management personnel to obtain practitioners' views on the industry.

### **Theoretical and Conceptual Discussion of Competitive Advantage and Internationalization of Design Services Firms**

#### **Theoretical Models**

The basic framework used in the study was an application of Porter's five forces model of industry analysis. Models from Grant's (1998) Contemporary Strategic Analysis were useful in tailoring the understanding to a technology-intensive industry. Other frameworks like C.K.Prahalad's (2004) model on co-creation of value were used wherever applicable. We referred to Saloner Shepard and Podolny (2001)'s work in analyzing the impact of the external environment on a firm in an industry. In addition inputs were taken from articles and papers in different technical and management journals and magazines, such as the Journal of Business and Industrial Marketing (Don.A.Dunn, Thomas Claude, 1994).

## Theoretical Models and Design-Services Firms

### **Economic Drivers**

There are huge economies of scale to be gained in R&D, which is one of the reasons why the industry has globalize. There is also a lot of horizontal integration that is taking place, mainly through mergers and acquisitions. On the other hand, economies of vertical integration are virtually non-existent. This is on account of the power of semiconductor manufacturers and the entry barriers prevalent in the industry, which we examine in detail below.

### **Entry (and exit) barriers**

There are no specific economies of scale though an investment of at least \$10 million is required to set up a new company. Brand recognition plays an important part (which especially favors the Big Three). However the switching costs are typically low, especially for a new product. Access to technology is quite restricted as well as availability of quality engineers. There is some amount of favorable government regulation. There is not much of asset specialization and the cost of exit (laying off employees and selling off computers) is also low. The main cost of exit relates to laying off employees, but with quite a favorable IT scenario, this is not much of a problem.

### **Suppliers**

The prime supply of value in this industry is typically in the form of qualified high quality engineers. In the Indian scenario there is huge demand for engineers which has to be met in the coming years. Their contribution to quality is substantive. In fact the quality and utilization of tools and consulting services is directly proportional to the quality of employees. Employees also form a major cost component in the form of salaries. The EDA industry is also not very important source of employment to potential graduates, due to its small size. Quality engineers can directly join semiconductor companies instead.

### **Co-creation of Value**

Even though there are a number of semiconductor companies a few account for a huge part of revenues. Hence EDA companies maintain close relationships with buyers through regular meetings and interactions.

With the exception of the fledgling SOC (System on a Chip), all of the buyer industry's key segments are dominated by a small number of large players. In microprocessors, for instance, Intel possesses a virtual monopoly and has huge bargaining power. However, with design getting increasingly complex, many smaller chip makers are becoming increasingly dependent on a handful of large EDA companies. There are few substitutes available and switching cost is low, especially for a new product.

The concept of Co-creation of Value developed by C.K.Prahalad and Venkat Ramaswamy is extremely relevant in the context of the EDA companies. Companies can no longer unilaterally decide what value is – instead they must co-create it with customers. With industry boundaries becoming increasingly unclear, it becomes difficult to identify the nature of competitive advantage. Industry has to adapt to the changing role of the customer and the new frame of reference for value creation.

### **Competitive Scenario in Design Services**

To understand the competitive advantage enjoyed by successful firms in the EDA industry we first examine the competitive scenario existing in the industry and then identify the key value drivers in the industry.

### **Key Players**

There are almost 75 (both big and small) players in the industry in spite of acquisitions and consolidation happening. A number of start-ups were seen proliferating during the days of the technology boom. Now the number has been reducing. But even this trend only occurs in the U.S. The Big Three – Synopsys, Cadence and Mentor Graphics account for almost 70%-80% of the market share (three firm concentration ratio), making the industry quite profitable.

There is always pressure on the buyers, semiconductor companies to come up with something better, faster and cheaper than what re-defined the state-of-the-art only a few months before. That pressure extends to chip makers, foundries, design labs and EDA companies – everyone connected to the business of bringing chips from R&D into high-tech equipment. The result is an industry that continually produces cutting-edge technology while riding volatile business conditions.

There are different product categories and differentiation on the basis of quality among them. The industry growth rate is high, but there is low switching cost. The terms of sales are not very open and are in the form of

contracts between the industry and buyers. In the case of products, bidding system might be followed, but again quality is an issue rather than price.

The demand for EDA tools is rising at a fantastic rate as shown by the astronomical growth rates of the industry in the past couple of years. This is mainly due to the semiconductor industry growth which in turn is driven by the cellular industry.

There are many small players in the EDA industry, but the top ten players (on the basis of revenue) are Synopsys, Cadence, Mentor Graphics, Magma, Altium, Ansoft, Nassda, Synplicity, TransEDA and Verisity. Of these, the Big Three account for nearly 80% of the industry revenues. See Figure 3 for valuation of public EDA companies.

## **Key Value Drivers**

### **Role of Technology**

The semiconductor industry lives and dies by a simple creed: smaller, faster, and cheaper. The newest chips have circuits with lines less than 0.13 microns across – less than one-thousandth the width of a human hair. The benefit of being tiny is pretty simple: finer lines mean more transistors can be packed onto the same chip. The more transistors on a chip, the faster it can do its work. Please see Figure 5 for an illustration of the design productivity gap. The main customer for the EDA industry is the semiconductor (IC) industry. To make things easier for users, technologies must become more complex. Consider the latest advances in mobile phones. On the outside, handsets are increasingly functional and reliable; on the inside they are a tangle of chips and processors that grows increasingly complex with each new functionality added. That complexity comes from companies in the semiconductor industry. From microprocessors to integrated circuits, the tiny products of the semiconductor industry are the engines that drive technology. In turn it is the tools provided by the EDA industry, which drive this growth. The disruptive effects of technology are clearly reviled by the McKinsey S-curve. The industry has to definitely gear itself to face the challenges of technology.

## **Research and Development**

Software represents quite a significant portion of the value (and development costs) of an EDA tool. The initial development costs for a tool are quite heavy, and continuing. Companies require considerable financial resources as well as technical personnel. Consequently we see a number of start-ups mushrooming in the Silicon Valley backed by VC funding. The ratio of R&D to sales is about 25% for the Big Three – Synopsys, Cadence and Mentor Graphics. To give an idea of how significant R&D is, a typically low technology industry like textiles, R&D to sales is around 10%. In an EDA industry, they spend is two-and-half times the figure.

## **The Establishment Chain and Entry Strategies of Design Services Firms**

### **Consolidation through Acquisitions**

This is an industry that has a spate of consolidations over the years. Top players in the industry are actively deploying financial strategies of consolidation through acquisition and major expansions. Lawsuits, acquisitions of outside public and private companies, acquisitions of intellectual property, purchases of other assets, strategic changes in pricing and software license/lease practices, integration costs, in-process R & D, amortization of intangible assets and deferred comp, interest income, pro or con income tax effects and other similar events frequently affect both the reported revenues and GAAP net income of all companies. Many of these “non-operating” activities lead to entries “below the operating income line”. 2002 was a year of frenzied activity on the acquisitions front with Synopsys acquiring Avant!, and Mentor Graphics completing a hostile takeover bid of IKOS Corp and Innoveda Inc, and Cadence acquiring Simplex Solutions and half-dozen smaller entities.

Nevertheless, these impacts, positive or negative, are almost always the result of explicit employee actions and management decisions designed to supplement organic revenue growth in revenues, earnings or both. Thus,

both pain and gain must be borne in one accounting period or the other. Accordingly, total revenues, GAAP net income and GAAP Earnings Per Share (EPS) are universally accepted measures of analyzing the relative and absolute performance of most private as well as public companies.

The industry has a stable structure with just a few players offering complete end-to-end solutions. But there is increasing product overlap with the R & D of main players proving to be ineffective. There is also the risk of overpayment or integration. Please refer Table 3 for a list of probable acquisition targets.

TABLE 3: POSSIBLE CANDIDATES FOR ACQUISITION<sup>i</sup>

Company	Core Assets	Possible Buyer(s)
Prolific	Better approach to cell library creation	Synopsys
Get2Chip	Architectural synthesis	Cadence
Verplex	Formal, assertion-based verification	Magma
Denali Software	Memory compilation	Synopsys, Cadence
Verisity	Functional verification language, alliances	Magma
Celestry	Cell characterization	Synopsys, Magma
Atrenta	RTL virtual prototype	Synopsys, Magma
LogicVision	Design for test	Synopsys, Magma, Mentor Graphics

#### Life-cycle of Start-ups

There is a great proliferation of start-ups in the EDA industry. Very few of them go on to scale up to transform themselves into sizeable corporations like Synopsys. This is mainly due to a number of factors that typically differentiate a start-up from a corporation. Start-ups have a very strong core of technological know-how in innovation. What they lack is a host of competencies in finance, marketing and manufacturing required to produce tools on a global scale. So, the easier route for them is to find a technological niche, and design a tool which could be sold, alongwith the start-up to one of the bigger companies, for a hefty premium. So the EDA industry teems with small start-ups who after reaching a certain stage in the growth cycle, merge with the larger entities.

#### Increasing the Bottom Line

EDA vendors have always been having proven design expertise and domain knowledge, as well as a world class tools expertise backed by access to IP. But the traditional area of weakness has been their high operating costs, and lack of system integration skills. Therefore, the cost advantage must be exploited by locating R&D and design facilities in India, Russia or China.

Design services companies cannot continue to play a game based on price alone, and must look at acquiring competence in innovation, if they are to sustain their profit margins. The aim should be to emerge as a contributor rather than just being an implementor.

#### The Big Three

The EDA industry is doing well compared to the rest of the high-tech industry (see Figures 3,4 and 5 for a comparison of earnings of EDA sector with the IT sector, and stock price performance of EDA sector against market indices, and EDA sector relative valuations (Price/Earnings ratio) vis-à-vis IT industry, S&P Information Technology, NASDAQ Composite Index and S&P Index.

#### Synopsys

Synopsys is currently the #1 player in the EDA industry. It has tie-ups with the top semiconductor manufacturers of the world, and maintains close relationship with them. During the past 17 years, Synopsys has grown from a small one-product start-up to a diverse company that is the technology leader in IC design tools, offering a complete solution from concept to silicon. The company was founded in 1986 by Dr. Aart J. de Geus and a team of engineers from General Electric's Microelectronics Center in Research Triangle Park, North Carolina. First established as

"Optimal Solutions," Synopsys was chartered to develop and market the synthesis technology developed by the team at General Electric.

Synopsys proceeded to pioneer the commercial application of logic synthesis that has since been adopted by every major electronics company in the world. The company has followed a practice of growth through acquisitions and is the leading provider of electronic design automation (EDA) software and services used to design complex integrated circuits (ICs), field-programmable gate arrays (FPGAs) and systems-on-chips (SoCs) for the global semiconductor and electronics industries.

Synopsys solutions include pre-designed and pre-verified blocks of intellectual property (IP) that can be easily inserted into design flows, as well as technology to address yield and manufacturing issues early in the design process. Compute power, multi-media, graphics and communications features are converging in consumer products, putting additional pressure on engineers to create designs that are especially sensitive to cost, power consumption and size. From high-level synthesis to silicon, Synopsys provides a wide variety of solutions. Synopsys products span the entire design flow, allowing its customers to use integrated best-in-class technology from design specification to silicon fabrication. Synopsys primarily develops and supports products based on two major platforms, the Galaxy™ Design Platform and the Discovery™ Verification Platform. These platforms provide customers with an integrated suite of tools for advanced IC design and verification. Please refer Table 4 for financial details.

TABLE 4: KEY FINANCIALS: SYNOPSYS, 2004

VALUATION MEASURES <sup>ii</sup>	
Market Cap (intraday)	3.17 bn
Enterprise Value (18-Aug-04)	2.57 bn
Trailing P/E (ttm, intraday)	21.57
Forward P/E (fye 31-Oct-05)	12.69
PEG Ratio (5 yr expected)	0.85
Price/Sales (ttm)	2.66
Price/Book (mrq)	2.24
Enterprise Value/Revenue (ttm)	2.15
Enterprise Value/EBITDA (ttm)	10.87

#### **Cadence Design Systems Ltd**

Cadence Design Systems is one of the leaders in Electronic Design Automation (EDA) software and provides end-to-end EDA solutions. Through innovative product development, strategic partnerships, and business mergers, the company has become the industry's leading supplier of EDA software technology and services. IEEE, the world's largest technical professional society, honored it with its 2002 Corporate Innovation Recognition award. It is world's largest supplier of electronic design technologies, methodology services, and design services. The company offers a comprehensive product line, including end-to-end solutions for system, digital, analog, and printed circuit board (PCB) design. It therefore helps electronics companies develop the new products that fuel their business. In the year 2001, 41 percent of its \$1.43 billion in revenues was generated by international customers - nearly \$333 million from Europe and the United Kingdom, almost \$181 million from Japan, and more than \$94 million from the Asia Pacific region.

It has R&D centres all over the world ranging from Dublin to Noida. Cadence India is playing a pioneering role in promoting the development of electronics industry in India. Cadence is also creating partnership programs with premier engineering institutes in India including software grants, joint product development programs and fellowship programs. Cadence India has evolved to be a leader in technology at the international level, through representations through forums like the VITAL TAG, the IEEE Timing subcommittee, which is responsible for defining the VITAL standard (VHDL Initiative Towards ASIC Libraries) and in the synthesis Inter-operability Working Group (SIWG) set up under the auspices of VHDL International. Cadence India plays a key role in promoting the annual VLSI Design Conference and VLSI Design and Test (VDAT) conference. Please refer Table 5 for financial details.

TABLE 5: KEY FINANCIALS: CADENCE, 2004

VALUATION MEASURES <sup>iii</sup>	
Market Cap (intraday)	3.38 bn
Enterprise Value (18-Aug-04)	3.33 bn
Trailing P/E (ttm, intraday)	N/A
Forward P/E (fye 31-Oct-05)	13.91
PEG Ratio (5 yr expected)	1.15
Price/Sales (ttm)	2.93
Price/Book (mrq)	2.12
Enterprise Value/Revenue (ttm)	2.94
Enterprise Value/EBITDA (ttm)	48.86

### Mentor Graphics Ltd

Mentor Graphics is a publicly held company founded in 1981, and headquartered in Wilsonville, Oregon. The company offers innovative products and solutions for design challenges in the complex worlds of board and chip design. Mentor Graphics has a quite a broad portfolio of products including embedded software solution.

The company has close to 3,700 employees as of now spread over 28 engineering sites worldwide involved in R&D. It also has a global distribution channel with 48 sales offices around the world. Its revenue in last reported 12 months is approximately \$675 million.

The company's global customer support organization offers leading customer support solutions online, by phone and in-person, to ensure good customer service. It has achieved Support Center Practices (SCP) certification and is a five-time winner of the Software Technical Assistance Recognition (STAR) Award from the Service and Support Professionals Association.

The company also invests in the transfer of knowledge to its customers. Their solutions are used worldwide by forward-looking electronics companies to optimize design productivity and advance adoption of the latest industry design best practices.

The company believes in strategic partnerships with leading electronics manufacturers, semiconductor and electronic design suppliers for development of new design solutions and methodologies. Please refer Table 6 for financial details.

TABLE 6: KEY FINANCIALS: MENTOR GRAPHICS, 2004

VALUATION MEASURES <sup>iv</sup>	
Market Cap (intraday)	759.94 mn
Enterprise Value (18-Aug-04)	961.11 mn
Trailing P/E (ttm, intraday)	N/A
Forward P/E (fye 31-Oct-05)	10.85
PEG Ratio (5 yr expected)	0.69
Price/Sales (ttm)	1.08
Price/Book (mrq)	2.10
Enterprise Value/Revenue (ttm)	1.39
Enterprise Value/EBITDA (ttm)	67.32

## **Conclusion**

Considering the key findings and challenges given in the above section it is evident that the EDA industry is poised for greater success in the coming years, offering phenomenal returns to investors. There are some key conclusions with respect to the industry that are as follows:

### **Competitive Advantage in EDA Industry**

#### **Developing Better Customer Relationships**

As far as customer relationships are concerned, there are different levels at which companies operate in servicing the customer. In the initial stages of the EDA industry history, firms were essentially involved in transaction selling with emphasis on product features, function, price and performance. The next stage was an evolution to a product solution, where the product was offered along with application services. In the current scenario there are companies like Cadence and Mentor Graphics offering a business solution, which is essentially a multi-product solution that can address a business problem. But a firm like Synopsys goes a bit further offering a “partnership” solution, that is essentially multiple business solutions linked across the corporation. Partnerships with customers involve strategic relationships to solve complex problems. The industry is highly dependent on its suppliers for revenue as well as technology. At the same time, value creation occurs when the suppliers actively involve themselves with the EDA vendors so as to partner together in solving complex design problems. In fact, the future of the industry lies in strengthening this mutually beneficial bond.

In the face of the threat from a challenger like IBM, strategic relationships are the only way EDA tool vendors can save their skin. It is therefore imperative that definite efforts are taken to maintain and if possible, strengthen the relationship. There is a crying need for design services companies to enter into alliances with EDA companies who are suppliers so as to strengthen the supply chain. Another possibility would be to increase collaboration between industry and academia which would greatly benefit from the R&D point of view.

#### **Developing Human Capital**

The most important asset for the EDA industry is its human capital. There is a two-pronged strategy that the industry must follow to keep pace with technology – asset acquisition and deployment. These refer to accessing and effectively using knowledge assets in the form of the latest developments in the industry, as well as attracting the best talent for work. Other modes of asset acquisitions could be R&D work performed through tie-ups with universities and academia.

Keeping pace with technology is possible through constant and consistent efforts in R&D capabilities. It is necessary to attract the best talent available and use them in a judicious manner. Brand image is also important as sometimes semiconductor manufacturers themselves approach EDA vendors with some specific tool design. But it is in reality quite difficult for EDA companies to focus their efforts on branding. Co-branding options are also limited due to the relatively small size of the industry.

### **Internationalization in the EDA Industry**

#### **Main Consideration during Initiation**

The initiation of internationalization is a phase highly influenced by network contacts and one’s own abilities to go international. Technology-intensive industries, in the introductory or growth phases of their life-cycle, have a number of distinguishing characteristics like the emergence of standards, network effects, or just the innovation-focused environment. Subsidiaries that have a definite source of competitive advantage manage to steal a march over the rest of the industry and earn phenomenal returns.

#### **Main Consideration during Expansion**

The second phase of internationalization is that of expansion and influenced by new experience, knowledge and confidence gained through the initial establishment of international operations through subsidiaries. New relationships yield additional opportunities but also lead to vicious circles. Initial success paves the way for increased desire and ability to expand. But there

must also be simultaneously established a system of elements that control growth along with the engines of growth themselves. The classic example is the problem of maintaining high quality standard of provided services. This was evident in the interviews we had with the Vice-President, R&D of Synopsys India Ltd.

One way to overcome the quality problem is to ensure that the entire service-providing concept is systematic. Such a well-developed system for service production is likely to result in a uniform production of high-quality service, than if the service production operations are based entirely on an individual's performance. Further, newly recruited employees would need some amount of time cushion to develop the skills necessary to match the quality standard that the firm currently maintains.

**Main Consideration during Consolidation**

The implication for EDA firms offering design services is to operate in several spheres offering economies of scope, so that complementary activities are performed together. Further, customization has become an important ingredient in the service delivery model of such firms. This is actually an opportunity to increase the customer's switching costs of going to a new supplier by ensuring successful customization. Besides, there is an element of learning from customers that in turn enhances opportunities to pursue continuous change.

The main consideration when it comes to the choice of country in which to establish subsidiary is either cost or value-add. The Indian subsidiaries of global EDA firms have been found to be aligned with the business strategies of their parents, while the implementation of these strategies is based on the key strength derived by the subsidiary. The table below summarizes the role and the predominant intent of the Indian subsidiaries of the three EDA firms that were studied:

<b>Indian subsidiary</b>	<b>Role</b>	<b>Predominant Intent</b>
<b>Synopsys</b>	<b>Established as cost centres and developing tools with emphasis on lean production</b>	<b>Low cost</b>
<b>Cadence</b>	<b>Established as R&amp;D centres and developing "yet-to-be-commercialized" tools</b>	<b>Low cost + Talent</b>
<b>Mentor Graphics</b>	<b>Established as support centres and developing tools with focus on cost-cutting</b>	<b>Low cost</b>

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## Appendix

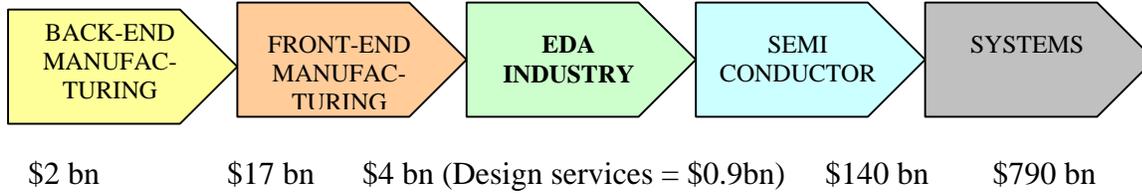


FIG 1: EDA VALUE CHAIN

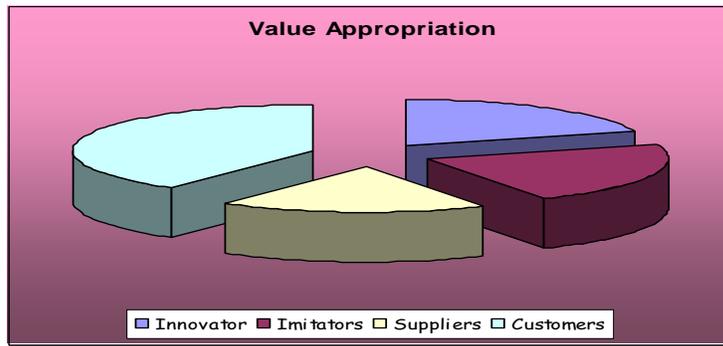


FIG 2: VALUE APPROPRIATION CHART

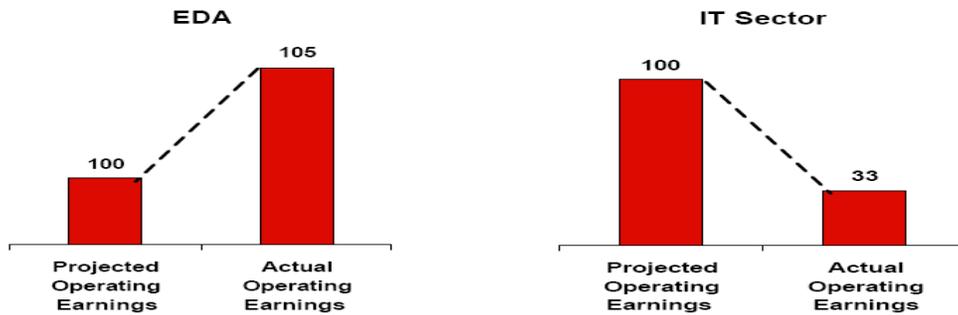


FIG 3: VALUATIONS OF PUBLIC EDA COMPANIES, 12/01

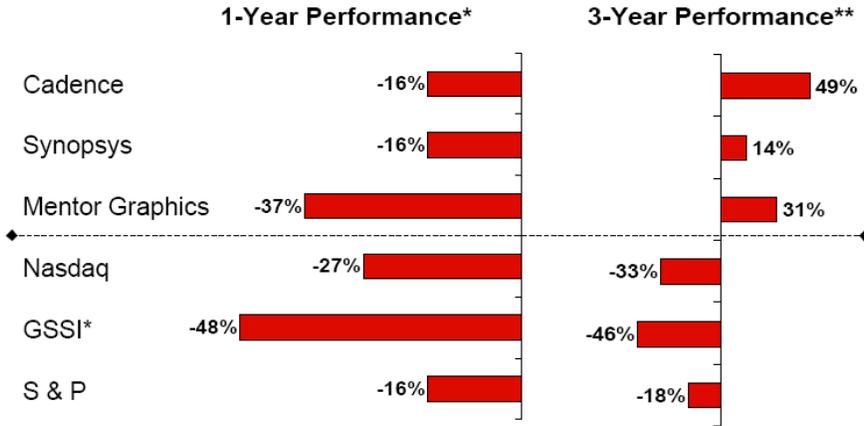


FIGURE 4: STOCK PRICE PERFORMANCE: EDA VS. MARKET

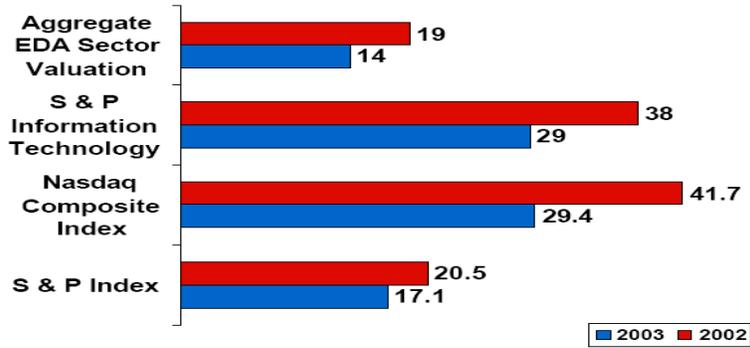


FIGURE 5: EDA SECTOR: RELATIVE VALUATION INDICES (P-E RATIO)

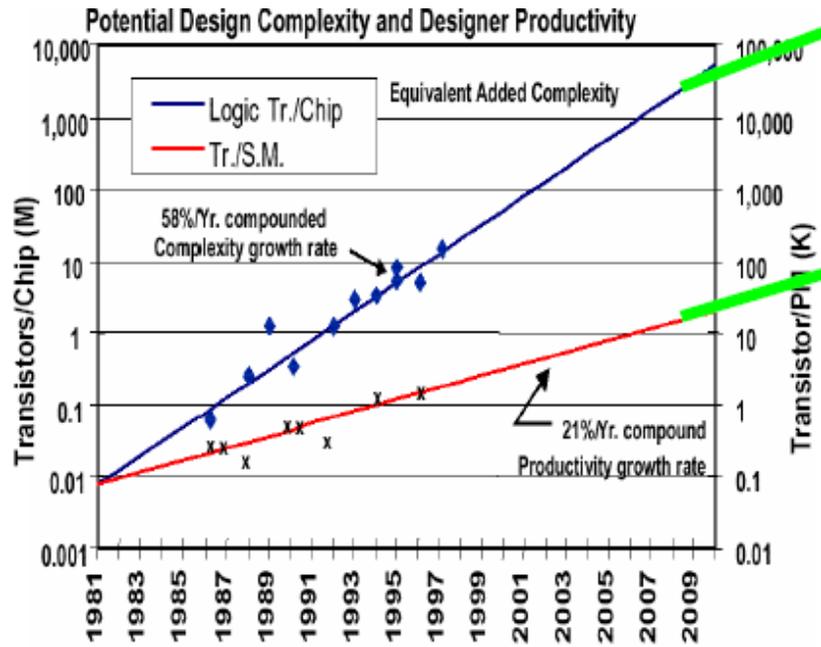


FIG. 6 : DESIGN PRODUCTIVITY GAP  
 Source: Euro-SOC Workshop, Paris, 2004

### End Notes

- <sup>i</sup> “EDA Industry view”, an article by Dr. Russ Henke
- <sup>ii</sup> Source: [www.finance.yahoo.com](http://www.finance.yahoo.com)
- <sup>iii</sup> Source: [www.finance.yahoo.com](http://www.finance.yahoo.com)
- <sup>iv</sup> Source: [www.finance.yahoo.com](http://www.finance.yahoo.com)

# What Make M&As Successful in China?

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## Abstract

China's M&A activities have become a significant economic phenomenon, and have been rapidly growing. However, to date research on M&As in China has been extremely limited. Based on a single case study, this paper examines the effect of 'strategic fit' and 'organizational fit' on performance in China. It has been found that an M&A is more likely to be successful if both 'fit' conditions are met, and implementation is successful. In China, the government plays a major role in M&As as both a majority shareholder and policy maker. The implementation of organizational fit appears to be more difficult due to the mentality associated with the planned economic system. The process of the post-acquisition integration is also a process of 'modernization' or installation of scientific management systems and infusion of market-driven concepts. Implications for both research and managerial practices have been discussed.

## Introduction

Issues on mergers and acquisitions (M&As) have been at the heart of research on strategic management. Although acquiring companies have frequently experienced deteriorated post-acquisition performance that has reduced shareholders' wealth [1], M&As have remained to be a major strategic approach to expansion.

In the last few years, M&A deals have grown at a double-digit rate in China. It is notable that the economic environment in China is different from that in the West, with the legacy of economic planning and limitation of intervention from the government. In addition, M&A activities in China are still at an initial stage, and thus expected to differ from those in the West. Although an extensive body of literature can be found on M&As in the West, to date, research on M&As in China has been extremely limited.

As an initial step to fill the void in the area, this study is aimed at identifying factors that influence M&A performance in China. Specifically the study addresses the following questions: (a). What are the environmental factors that affect M&A activities and outcomes both positively and negatively? (b). What are the strategic and behavioral factors that impact M&A's performance? (c). What are the appropriate performance evaluation criteria that can be used to determine a successful acquisition transaction?

## Literature Review

M&As are still poorly understood and managed resulting in disappointing performance, and about 50% or more M&A deals have been unsuccessful [2][3]. Understanding the sources and/or determinants of value creation or loss is vital to comprehending the causes of success and failure of corporate acquisitions [1]. Two bodies of literature have addressed sources of shareholders' wealth in acquisition activities: strategic management and financial economics literature [4].

Since Kitching's [5] initial notion that the post-acquisition integration process is one of the most important factors for success, it has been identified that value creation from M&As is gained not only from those strategic factors that cause realization of synergies as reflected in capital market expectations [6] [7], but also the processes that lead to the realization of anticipated synergistic benefits to be realized [8].

Traditionally either a choice perspective or a rational decision model is adopted in M&A research. Many previous studies based upon a perspective of rational choice have focused on two key points: strategic fit [9] [10] and organizational fit [11] [12]. It has been argued the rational choice perspective may not provide a thorough view of acquisition processes and outcomes [13] [14]. Subsequently, it has been suggested that the conventional choice

perspective should be supplemented with a process perspective, and the process perspective is an alternative model that may replace the traditional and popular choice perspective [15].

To maximize acquiring firm’s strategic gains, three general phases in the acquisition process must be planned as integral to one another [16].

TABLE 1: SUMMARY OF SOME MAJOR STUDIES ON M&AS

Author(s)	Studies and Conclusions
[17]	Contextual and Buyer Behavior impact acquisition success
[18]	Pre-acquisition planning is a grossly undervalued yet fundamental element of acquisition success
[19]	Post-merger integration is critical to long-term merger success.
[20]	Success factors: a. Degree of diversification, b. Choice of industry, c. Choice of country, d. Market share to purchase, e. Relative size of the acquisition, f. Profitability of the acquisition, g. Financial architecture of the purchase
[21]	A strategic approach to acquisition
[22]	Examined Drucker’s five rules for successful acquisition

## Research Framework and Methodology

Research on M&As in the West has been going on for decades, and been quite advanced in terms of various issues covered. Recently research emphasis has been shifted from the conventional choice perspective (strategic fit and organizational fit) to a process perspective [15]. However, given the fact that limited research on M&As in China can be found, it would appear appropriate to start from basics. Thus, this study has used a simple model, i.e. the effect of strategic fit [9][10] and organizational fit [11][12] on performance, as shown in Figure 1. The model suggest that an M&A project would be successful if it has achieved both strategic fit and organizational fit.

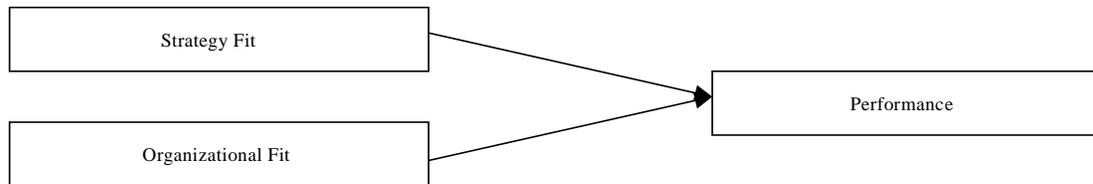


Fig 1. A FRAMEWORK FOR RESEARCH ON M&A IN CHINA

Since the study intends to find out why and how strategy and organizational factors influence M&A performance in China, the case study method is deemed proper [22]. A case in which a privately owned firm has acquired a state-owned enterprise (SOE) has purposefully been chosen for the following reasons: (1) privately owned firms represent a growing force and presently account for over one third of China’s GDP and (2) it is the government intention to encourage privately owned firms to merge with state-owned enterprises in order to achieve the objective of diversifying ownership in the hope that SOEs can be revitalized.

## Supor’s Acquisition of Kinisy: The Case Study

### Development of the Supor Group

The predecessor of the “Supor” group is the Zhejiang Yuhuan Pressure Cooker Plant, a small township firm that evolved from a spare parts manufacturer to becoming a ‘franchisee’ for Shenyang Shuangxi pressure cooker, a large reputable state-owned enterprise, (using its brand name ‘Shuangxi’ while paying handsome royalties). However, the pressure cookers manufactured by Yuhuan turned out to be better than those by Shenyang Shuangxi itself in terms of

quality and design, and this resulted in a rapid increase in market shares at the expense of Shengyang Suangxi. As a result, Shengyang Shuangxi suddenly stopped the 'franchising agreement', and forced Supor into a difficult market position. Without choice, Supor started to launch its own brand 'Supor'. Initially, it could only sell about 30,000 units monthly while with the franchise, the monthly sales were over 100,000. Gradually, Supor penetrated the market based on its super quality and design, and has become the market leader in the kitchen equipment sector. In 1996, Supor took 40% of the market share.

After 1996, Supor diversified from the single pressure cooker to a full range of cooking utensil manufacturer, and to electrical appliance for kitchen, and also expanded into international markets. In 1997, Supor acquired a Pharmaceutical company (Kinisy), and set up a plastic company. In 1998, an R&D center was set up, with over 10 million RMB poured into the development of specialized production of cooking utensils. In 2002, Supor was awarded the "China's Best-Known Trademark" by the State Industry and Commerce Bureau, and in 2004, its sales reached 1.2 billion RMB taking around 60% of the market share. Today, about 35 million families use "Supor" kitchen utensils, and "Supor" is almost the name or a symbol of kitchen utensils.

#### **Background of Kinisy**

The Zhejinag Kinisy Pharmaceutical Co. Ltd, a stated-owned company, was established in August 1970, with an area of 27,000 m<sup>2</sup> and 318 employees. Its main products consisted of traditional Chinese medicine and Western medical preparation, chemical raw materials and chemical semi-finished products etc. It has had over 40 licenses for manufacturing various drugs, including capsules, tablets, granules, instant medications and drinking medications etc. In 2002 with a sales of 70 million RMB, the company owns a trademark "Kinisy" that has enjoyed an excellent reputation both province and nation-wide in China.

#### **Strategic Fit**

##### **Supor's Perspective**

Following a successful diversification into other industrial sectors such as kitchen appliances and expansion into international markets, in 1997, Supor acquired 95% equity of Kinisy at the price of 5.13 million RMB. What were the strategic factors that led to Supor, a privately-owned and predominantly kitchen-product firm to acquire a well-established and reputable state-owned pharmaceutical company?

In the early 1990s, Supor gradually shaped, through an extensive consultation process within the firm, a strategy consisting of three key points: (1) firm's strategic objective is to attain No. 1 position in China and create a world-renowned brand. To achieve this, it would develop from the single kitchen utensils product line to extend into other related and downstream product lines, and build up an advanced manufacturing base with kitchen products at the core. (2) Making full use of its financial strengths and geographic (coastal based) location advantage, Supor would diversify into other industries such as ocean transportation, tourism, real estate and pharmaceuticals as well as possible infrastructure constructions. (3) Putting the development of new technology as a top priority, the firm would endeavor to compete based on its own intellectual properties and develop world-class new products.

In the mid 1990s, Supor recognized that its market share of cooking utensils would soon reach its limit and profit growth would be under pressure. Therefore, Supor began to embark on transformation and diversification to become a multiple business (including services) enterprise. Sales volume from its cooking utensils would expect to account only for 40-50% of its total revenue in the future. The chairman believed that acquisition across industry would be a natural choice for expansion. Supor acquired 15 enterprises in the sectors of aluminum and home appliances within 6 years, and later further diversified into businesses such as plastics, packing, medicine, tourism and real estate etc.

The acquisition of Kinisy has given Supor a platform to enter the pharmaceutical industry, and reflected its strategic intention: "focusing on traditional Chinese medicine, simultaneously developing both Chinese and Western medicines". Supor has seen the synergy of the two companies in terms of marketing, manufacturing, technology, management and capitals, and planned to strive for entering both domestic and international medicine markets. Employees within Supor have unanimously supported the management decision.

##### **Kinisy's Perspective**

Before the acquisition, Kinisy's development was heavily restrained by the traditional planned system, out of date business concepts, inflexible control mechanism, and ineffective and demotivating remuneration policy. Having

undergone through a financial hardship, with many year losses and heavy debts, the firm suffered from incompetent management and inefficient operations.

As the largest shareholder of Kinisy, the local (Yuhuan County) government played a key part in the acquisition process since it was keen in finding a solution to help Kinisy get out its difficult position. Supor has been one of the largest firms in the region, and thus the government saw the acquisition as an ideal way of helping Kinisy. In particular, through the involvement of a privately-owned firm, it would greatly assist in the process of transforming shareholding structure and thus stimulate productivity and motivation on the part of management and employees.

As far as the top management of Kinisy was concerned, they came to an impasse as they could not work as a united team, and their attempt to push the reform and turnaround of the company could not see any light. Therefore, the involvement of a third party seemed to be a hope to save the company. At the time, as a senior director put it “at the beginning of the acquisition, Kinisy’s shareholders including government authorities basically didn’t think much about the future prospect of the enterprise, but just wanted to get rid of this troubled burning fire to pay back money owed to banks and get back what they deserve.”

In addition, Kinisy also has its own strengths. For example, it has owned a number of production lines for packaged Chinese medicine (pills, tablets, capsules, sachets etc) and some very popular types of medicine and a team of competent employees (engineers and technicians as well as some good managers). Its extensive distribution channels and advanced or first-class technology and equipments also made the combination seem to be attractive and synergistic. For instance, Kinisy has had the production capacity for 80,000 kg Kelish capsules, with the technology and equipment imported from Europe and first-class technology and facilities for compressing, disinfections and packing, especially water treatment.

Therefore, after acquisition, it would only need to carry out some house cleaning work and replace or improve a small part of facilities and equipments before the company could fully function again. If adding more varieties of drugs and increasing production capacity, it would be possible to seize a large piece of regional market share. Moreover, Kinisy’s technology for Chinese medicine injection has represented an important new direction for Chinese medicine development, and such injections would have a high added value and great marketing potential.

#### **Integration Strategy and Organizational Fit**

Upon the completion of the acquisition deal at the end of 1998, the Chairman of the Supor group spoke at a conference with Kinisy’s employees to announce the post-acquisition goal and integration plan: the sales in the first half year of 1999 would be maintained at the same level as previous year but losses would be eliminated. In 2000 the company would start to make profits. The current main tasks would be to restructure the company, tap potentials and improve productivity, and increase turnover from then on.

Supor has adopted “four” general principles to pursue post-acquisition integration within Kinisy:

Principle 1: Changing business concepts. The concept of a manager being an ‘official’ must be abandoned. In a state-owned enterprise, managers would expend a lot of energy on non-business related things to seek promotion for a higher position, whilst now they must focus on their work and become a good ‘business’ manager. In the past, if their business operations had financial difficulties, they would wait for being rescued by the government while now they must rely on themselves to turn it around. Employees now must accept the fact that salaries and bonus could go up as well as go down while in the past they never came down. Some seemingly basic business concepts have been put forwarded to the employees: “if you don’t love your work today, you may lose it tomorrow”, “if you don’t work hard on your job today, you may lose your post tomorrow”, and “company’s success is the success of all of us.”

Principle 2: Transforming the management system. This has mainly included two aspects: firstly, employment and promotion based on competition to best utilize human resources. This is aimed at select qualified talents and competent managers. Secondly, the remuneration system must reflect the effort and performance proportionally.

Principle 3: Enhancing management effectiveness. The new organization must have a simple and practical system allowing effective decision-making, execution, control and feedback, and it must be flexible, responsive, reliable and efficient and knowledge generation.

Principle 4: Tapping and penetrating markets. The firm must be market driven and actively engage in

market competition and continuously develop high-graded and new traditional Chinese medicine.

#### **People Integration**

In the new organization, senior management would be selected through competition, and each director would be responsible for one area (while in the past, he/she would normally have a responsibility for a subsidiary) to build up an efficient management team. Middle managerial positions would have a tenure period, and would be assumed in turn. At the end of each year, directors/managers would perform a self-assessment as well as be evaluated by employees. If someone is under performed, he/she would either go through a training process or be replaced. Incompetent employees would be laid-off.

Before the acquisition, Kinisy had 9 directors, and they were either appointed by the government or joined the company from another one. After the acquisition, 4 people from the previous senior and middle management team have been selected based on a stringent evaluation process to be part of the new senior management team, including the general manager, who was an ex-deputy general manager of Kinisy. Supor has sent three people from Supor to join the team, two being deputy general managers in charge of marketing and personnel and one chief accountant. The general manager commented: "I would never dreamed of being put into such a position," and expressed his aspiration to excel in transforming the management system and leading all the employees to work hard and improve performance.

The new personnel policy has now truly reflected the principle that competent and capable people would have the priority for employment, and be promoted, and once appointed, they would be empowered. The number of managers has been cut from 89 before acquisition to 36, a reduction of 40%. As a result of integration, Kinisy has cut 80 part-time workers, and transferred 280 former full-time employees into the new company, with no job losses. Such a measure has saved monthly salary payment of 200,000 RMB for Kinisy.

#### **Cultural Integration**

Supor has had the belief that it could not force its own culture into Kinisy but two cultures would need to be integrated. After the takeover of Kinisy, the government and trade union have worked closely to build up a new corporate culture with Supor characteristics. Selfishness and commitment to the company has been advocated and promoted. The culture is reflected in the slogans: "I am here for you, you are here for me, everyone is here for Kinisy, and Kinisy is for the country"; "we need pressure, will overcome pressure, and will scare no pressure" etc.

Initially the cultural integration came across some serious problems. At the beginning of integration, the work team from Supor to takeover Kinisy was blocked at the entrance of the company. This is because the former employees of Kinisy were concerned about becoming part of a 'private enterprise' and felt insecurity of their jobs. Such an incident has greatly affected Kinisy's normal operations for a short period of time. The problem was resolved through the intervention from the local government.

The former employees of Kinisy had the old concept that they were the 'masters' of the company, and how the 'master' would be hired and fired? Many employees reluctantly accepted Supor's new management practices but refused to sign a one-year contract, and they wanted an 8-year or 10 year contract to make their life secure. In addition, the company has implemented a new rule that employees would need to register attendance using a punch machine, 4 times a day, arriving at work 10 minutes earlier. Other 'rules' have included such as "no smoking, no chatting, no sleeping, or no eating is allowed during working hours". All these have been common in Supor, but proved difficult in Kinisy. Many employees left the company because they could not adapt themselves to the new management system. However, an integrated Kinisy has become hugely successful, and this has suggested that the short-time inadaptability on part of Kinisy employees is just "birth pangs" in the process of post-acquisition integration.

The practices of Supor's 'culture' in Kinisy, the employees have become aware of Supor's system: employment and promotion based on competence and capability. Supor has set 22 salary levels in which performance-related bonuses have accounted for 60% of the total pay, and there have also been some other incomes and allowances for employees. It would be uncommon for normal hardworking employees to earn a monthly salary higher than the general manager. Such an environment has brought dynamism and vigor into Kinisy. This "Supor model" has become widespread known in the provincial region, and been used by the government to encourage state-owned enterprises to follow suit.

#### **Integration of Management System**

In order to fundamentally change the old Kinisy management practices and transplant scientific management systems, over 20 new administrative 'rules' and systems have been enforced in areas of personnel, finance, vehicles scheduling, internal auditing and procurement as well as external service contracts etc. This has been intended to put an end to the past popular phenomenon of "everybody taking from the enterprise", or loose control. The company has carried out the reform and simplification of organization to make it lean, and enhanced management training and education to changed their concepts and to enable employees to accept Supor's management philosophy and quality consciousness.

#### **Performance Appraisal**

Kinisy sales has increased 26% compared with that before acquisition, and the market share from 10% to 19% in the Zhejiang province. Kinisy has paid back both the previous Kinisy debts (about 30 million RMB) and the loans owed to the bank before acquisition (30 million RMB), provided settlement fees for both laid-off and disabled employees and comprehensive funds for social security of 19 retired employees.

Starting from 1999, Kinisy started making good profits with net cash flow-in of 86 million RMB and its turnover has grown at an annual rate of 35%.

It is notable that it has taken only four months for Supor's team to put Kinisy back into normal operations. Supor has also ploughed a large percentage of sales into R&D on biological medicine. For example, it has invested 43million RMB in Wuhan research project and 50 million RMB to construct a Shenzhen Kinisy drugs research center and 32 million RMB for Kinisy medical network.

#### **Major Difficulties Encountered**

##### **Transitional Mentality**

The local government has been seen by some managers and employees as a 'traitor', who has offered a state-owned enterprise with good assets to a privately owned firm. As a result of changing the ownership, the employees would no longer enjoy state retirement pensions, allowances and subsidies. The average age of employees has been over 40 years, and most of them would have little hope for re-employment. Retirees accounting for one-third of the total employees had not received their pensions or retirement benefits for a long time. Though Supor has promised them for job security or satisfactory settlement, they would still worry about their basic living expenses. Considering the lose of the secured or guaranteed social benefits from the state-owned enterprise, many employees would naturally suffer from stressful emotions, and some managers would also be very concerned about giving up the 'official' status from the enterprise, with the loss of related benefits. All these have resulted in resistance or difficulties in the acquisition process and integration and thus an increase in Supor's acquiring costs.

##### **Agency Issue**

It is notable that there has been the absence of intermediates such as professional investment bankers, strategy consultants and accountants. Generally speaking, due to the limitations in management professionalism and talents, Supor's management and acquisition approach has tended to be speculative. Supor would benefit a great deal from professional intermediates on its development of strategy, products, markets, and management system etc.

##### **Inconsistent Government Support**

As one of Kinisy's major shareholders, the local government has strongly supported the acquisition initiation and planning. But at a later phase of post-acquisition integration, the government became somewhat a passive 'observer'. It would let problems be resolved between the two parties while distancing itself from any problems unless they would involve social stability.

## **Conclusion**

As China's influence on the global economy increases, its M&A activities have also become significantly notable. However, little research can be found in this area partially due the difficulty in undertaking research in China and partially to the fact that it is only recently that M&As in China has started to draw attention from the academic community. As an initial attempt to understand M&As in China, this paper provides some preliminarily findings through an in-depth case study.

Despite rapid growth, M&A activities are relatively new and still at an early stage, and thus there have been limited sophistication (strategic selection and evaluation of targets) and involvement of various intermediates

(investment banks, consultants, and accountants). M&As tend to occur between SOEs, between foreign-funded firms and Chinese enterprises, and between non-state-owned firms and SOEs. This study has centered a non-state-owned (private) firm and an SOE. However, some of potential problems or implications may apply to those between foreign-funded firms and SOEs.

The study has mainly focused on two dimensions that potentially influence M&A outcome: strategic fit and organizational fit. Within each dimension, there are two factors: fit conditions and implementation. It is evident that strategic fit conditions are not sufficient, although vitally important, for a successful M&A. At the pre acquisition stage, apart from factors such as industry, market, technology, and motive, the government, as a majority shareholder of SOEs and industrial policy maker, is an important factor that can determine whether an intended project would take place and how, and thus affect the implementation of strategic fit. There are some constraints on the development of a successful M&A project: enterprises seeking for acquisition targets are often reluctant to use professional help such as investment banks, consultants or accountants, and such quality resources are either unavailable or too expensive to be helpful. Therefore, a due diligence exercise is either absent or poorly carried out.

At the post-acquisition stage, the realization of organizational fit appears to be more difficult and crucial for success. Firstly, the mentality of employees from SOEs has deeply rooted in the planned economic system, and thus is a serious obstacle to administrative, cultural, people and management system integration. Secondly, the process of integration is also a process of 'modernization' or installation of 'scientific' management systems and market-driven business concepts. Thirdly, once a M&A deal is completed, the government is less willing to be involved (or supportive), and the acquiring firm has to find all the help it can get on its own.

In order for an M&A project to have more chance to be successful, an acquiring firm must:

1. Identify the target that meets 'strategic fit' conditions, and get government support is a necessary condition for success;
2. Plan and prepare for post-acquisition integration before the project takes place are of paramount importance, and be aware of the difficulty in changing employees' old mentality. In many cases, the acquired firms are poorly managed, and badly need a strong team to install an effective management system
3. Engage professionals such as investment bankers, consultants or accountants to help planning and due diligence.

Since this study is based on a single case between a privately owned firm and an SOE, it is desirable to continue research on M&As between other types of companies. The scope of research should also be extended to cover factors such as environment and process, and if possible, a survey study should be carried out.

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# **Risky Business? Analysing Risk Factors for Multinationals Operating in Myanmar**

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## **Abstract**

This study focuses on the operation of international business within Myanmar, a nation that has been under US trade sanctions since April 1997. International perceptions of Myanmar (formerly known as Burma) have been dominated by the poor human rights record and the country's notoriety as a major producer of narcotics. International state actors have adopted divergent responses in relation to the decision to engage, or not to engage, with repressive regimes such as the government of Myanmar. The US and the European Union (EU), have, to some extent, adopted a policy of 'isolation' with regard to Myanmar, while other governments and business communities, many of them located within Asia; have suggested an alternate 'constructive' institutional and economic engagement with Myanmar. This 'unfavourable' impression in the international community, in addition to the threat of possible international consumer boycott actions, means that unique challenges and operational and ethical dilemmas have confronted international businesses which have chosen to operate in Myanmar.

## **Myanmar: Background Information**

Myanmar, with a population of close to fifty million people, is often considered to be the 'crossroads' of Asia and shares borders with Thailand, India, China and Bangladesh (*About Burma* 2003). Myanmar is 262, 000 square miles, an area equivalent to that of the U.S state of Texas (Maung 1998, p. 4). Myanmar has been represented as an attractive investment destination because of its multi-varied economic potential including ample natural resources and future development prospects in the areas of infrastructure, tourism and consumer markets ('Infrastructure, Economic statistics' 2002). For example, Myanmar's vast teak forests and deposits of precious gemstones have yet to be fully commercialised. While the sustainability of development may be an open question, Myanmar's unspoilt and idyllic natural splendours and architectural heritage offer huge potential in the area of tourism ('Myanmar: Ripe for rape' 1994). After Myanmar ended decades of economic isolation in 1989, its gross domestic product (GDP) increased to 4.2% in 1994 and to 6.8% in 1995, as estimated by the Myanmar Government and the World Bank (Jones 1996). However, since a peak period of economic growth in 1995/96, Myanmar's GDP has fallen and for the year 2003/04 and 2004/05, GDP growth has been forecasted to dip below 4% ('Business outlook: Myanmar' 2003). Table 1 shows general facts concerning Myanmar's country profiles.

TABLE 1: GENERAL FACTS ON MYANMAR

<b>Location:</b>	South-eastern Asia, bordering the Andaman Sea and the Bay of Bengal, between Bangladesh and Thailand  Strategic location near major Indian Ocean shipping lanes
<b>Natural resources:</b>	Petroleum, timber, tin, antimony, zinc, copper, tungsten, lead, coal, some marble, limestone, precious stones, natural gas, hydropower
<b>Population:</b>	42,510,537
<b>Life expectancy</b>	55.79 years
<b>Ethnic groups:</b>	Burman 68%, Shan 9%, Karen 7%, Rakhine 4%, Chinese 3%, Indian 2%, Mon 2%, other 5%
<b>Government type:</b>	Military regime
<b>Capital:</b>	Rangoon (regime refers to the capital as Yangon)
<b>GDP - real growth rate:</b>	3.3% (2002 est.)
<b>GDP - per capita:</b>	Purchasing power parity - \$1,660 (2002 est.)
<b>Population below poverty line:</b>	25% (2000 est.)
<b>Inflation rate (consumer prices):</b>	53.7% (2002 est.)
<b>Exports:</b>	\$2.7 billion f.o.b. (2002)
<b>Exports - commodities:</b>	Gas, wood products, pulses, beans, fish, rice
<b>Exports - partners:</b>	Thailand 31.8%, U.S. 13.2%, India 7.4%, China 5.0%, Japan 3.7% ( <i>note: official trade statistics do not include trade in illicit goods - such as narcotics, teak, and gems (2002)</i> )
<b>Imports:</b>	\$2.5 billion f.o.b. (2002)
<b>Imports - commodities:</b>	Machinery, transport equipment, construction materials, crude oil; food products
<b>Imports - partners:</b>	China 21.8, Singapore 20.1%, Thailand 12.4%, South Korea 9.7%, Malaysia 7.6%, Taiwan 6.5% (2002)
<b>Currency:</b>	kyat (MMK)
<b>Exchange rates:</b>	kyats per U.S. dollar - 6.6421 (2002), 6.7489 (2001), 6.5167 (2000), 6.2858 (1999), 6.3432 (1998)

Source: Adapted from "Burma", CIA - the World Factbook, retrieved: September 29, 2003, from <http://www.cia.gov/cia/publications/factbook/geos/bm.html>.

A Tibeto-Burman race first entered Myanmar around the fifth century (Myint 1996). At the beginning of the 11<sup>th</sup> century, the first Burmese empire was formed (Andrews 1997). The country was then ruled by a series of kings throughout the pre-colonial era. Among the best-known kings were King Anawrahta (who became a king in A.D 1044 and first introduced Theravada Buddhism to the Burmese), Bayinnaung (who ruled from 1551 to 1581 and re-unified the entire country, making Myanmar "the largest empire in the Indochinese peninsula"), King Alaungpaya (who founded the Konboug dynasty in 1752) and King Mindon (1853-78) (Myint 1996). The history of ancient Burma (Pagan dynasty to Konboug dynasty) was littered with warfare among Burmese city states, and between the central Burmese kingdom and various ethnic minorities. Burma's pre-colonial history was also characterised by intermittent conflicts with Siam and China, and Burmese kings launched several famous invasions into Siam (Hall, cited in Maung 1998, p. 6-7).

The modern history of Myanmar can be divided into four stages (Kyi et al. 2000):

1. The Colonial Period (under the British) (1885 – 1948)
2. Independence and Parliamentary Democracy (1948 – 62)
3. The Burmese Way to Socialism (1962 – 88)
4. The SLORC/SPDC Regime (1988 – Present)

Myanmar was occupied by the British for over 60 years between 1885 until independence in 1948 (Kyi et al. 2000). Under British colonial rule, Burma was considered to be an administrative component of the Indian empire, and was governed as such until 1937 when the administration of the country was reconstituted as an independent colony (*The World Factbook: Burma* 2003). Under British colonialism, the Burmese economy was relatively open in terms of international and regional trade flows (Than 2000). After a prolonged nationalist struggle

led by General Aung San, Burma achieved independence in 1948. Over the next decade, in the context of relatively weak local institutions, a fragile parliamentary democracy was established. The AFPFL (the Anti-Fascist People's Freedom League) was the most significant political force during this period and was led by U Nu, who resigned as Prime Minister in 1962 (Kyi et al. 2000; Alamgir 1997).

In 1962, General Ne Win assumed power with a highly organised military coup, effectively terminating the country's experiment with parliamentary democracy. In 1974, Ne Win attempted to legitimise and solidify his regime by establishing the BSPP (the Burma Socialist Programme party) (Andrews 1997). After gaining power, Ne Win also moved to introduce a centrally-planned 'command' economy and to follow a self-sufficient path of national economic development through "the Burmese Way to Socialism", severing ties with the outside world (Than 2000). The country became known as "Socialist Republic of the Union of Burma" (*The World Factbook: Burma* 2003). Under Ne Win and the "Burmese way to socialism", Myanmar's economy declined dramatically, and the period has subsequently been characterised as "the most disastrous in the entire modern economic history of Burma" (Kyi et al. 2000).

Following political and economic upheaval and the brutal repression of dissidents in 1988, the State Law and Order Restoration Council (SLORC) took control of the nation, ending the Ne Win government's 24-year reign. SLORC abandoned the system of "the Burmese Way to Socialism" stating a public preference for moving the nation towards a market economy and international trade flows (Kyi et al. 2000). This change of policy on international trade by the SLORC government was a historic change in economic development strategy and marked "a symbolic end to self-imposed isolationism" (Sabesan 1996).

The SLORC military government renamed Burma in 1989, arguing that the new name "Myanmar" encompassed all ethnic groups of Myanmar, instead of referring to only the Burmans (the largest ethnic group in Myanmar) (Marcos 1997). The name "Myanmar" also derived from the actual term used in the Burmese language (*Myanma Naingngandaw*) (*The World Factbook: Burma* 2003). While many governments accepted and adopted the name change of Burma to Myanmar, some governments (especially from the West) refused to use the new name because it was the SLORC regime government who initiated the change (Marcos 1997). For example, the U.S. Government still refers to the country as "Burma", without adopting the name "Myanmar" (*The World Factbook: Burma* 2003). On 15 November 1997, the ruling SLORC also attempted to rejuvenate its tarnished international image by changing its name to the State Peace and Development Council (SPDC) (Guyot 1998; Callahan 2000).

Since gaining power, the regime government has been plagued by a series of economic and political problems. Although Myanmar is rich in natural resources and was once considered to be the 'rice bowl' of Asia in terms of agricultural productivity, economic mismanagement during the Ne Win government, followed by the successor SLORC/SPDC government, has severely damaged the country's economy, and has seen Myanmar ranked among the poorest countries in Southeast Asia (McCarthy 2000). The Myanmar economy has faced major macroeconomic imbalances including "a steep inflation rate and an official exchange rate that overvalues the Burmese kyat by more than 100 times the market rate" (*The World Factbook: Burma* 2003). Observers such as Maung (1998) continue to express scepticism about the prospects for sustained economic growth, blaming "the ineffective and repressive policies" of military governments that have ruled the country since 1962 and suggesting that policy settings and weaknesses in infrastructure have 'ruined' the nation's human capital. After the regime's crackdown on political dissidents in 1988 the Myanmar Government has ceased to receive funding through most overseas development assistance programs (*The World Factbook: Burma* 2003).

Aside from these severe economic problems, the regime's domestic and international legitimacy has eroded because of its refusal to implement political reforms. In particular, the regime has been opposed by the National League for Democracy (NLD), led by Daw Aung San Suu Kyi, the daughter of the legendary nationalist hero General Aung San. In 1991, SLORC suffered a major political humiliation when the NLD achieved a landslide election victory ('Background to reform' 1996). Since this election, the SLORC/SPDC has refused to transfer power or to recognise the NLD as the legitimate government of the country. Furthermore, the regime government of Myanmar has placed Suu Kyi under house arrest on several occasions since 1989 and has severely repressed the activities of pro-democracy activists in the country (*The World Factbook: Burma* 2003). As a result, the junta government of Myanmar has been represented as "the most brutal and oppressive in Asia...also the most corrupt"

(Ball 1999). Myanmar has remained under authoritarian government since the Ne Win regime gained power in 1962 (Alamgir 1997).

In July 1997, the regime government won a degree of international legitimacy when the Association of South East Asian Nations (ASEAN) accepted Myanmar as a full member (Than & Than 2001). In the same year, however, there was an important countervailing development when President Bill Clinton banned U.S. businesses from making new investments in Myanmar, justifying the investment restrictions on the grounds of the exceptionally poor human rights record of the regime government (Finch 1997).

### **‘Constructive Engagement’ Versus Isolation: the Case of the Myanmar Sanctions**

The Myanmar Government was implicated in the exploitation of forced labour and human rights abuses in the Report of the Commission of Inquiry appointed by the International Labour Organization (ILO) (Bolle 1998). In fact, Myanmar had long been tipped to take the place of South Africa as the next internationally outcast state ('Burma a pariah' 1995). In response to sustained pressure by various human rights and pro-democracy campaigners, the Clinton Administration imposed sanctions against Myanmar on April 22, 1997 (Finch 1997). Myanmar sanctions, however, only prohibited 'new investments' made by U.S. companies in Myanmar, and they only applied to U.S. citizens and companies registered in the U.S (Finch 1997). Myanmar sanctions have been considered unilateral because United States has been the only country which bans new investment in Myanmar, although a few European countries have imposed some restrictive measures on trading with Myanmar (Preeg 1999, p-3).

The sanctions on Myanmar were renewed in mid 2000 ('Myanmar's upstream sector hobbled' 2000). In July 2003, the United States government appeared to have stepped up its 'isolationist' policy stance on the Myanmar regime, when U.S. President George Bush "signed the Burma Freedom and Democracy Act of 2003 into law", following the crackdown on political dissidents and detention of Daw Aung San Suu Kyi, the leader of the National League for Democracy (NLD) (O'Connell 2003). The new sanctions law on Myanmar prohibited all Burmese imports to the US, suspended the U.S. assets controlled by the Myanmar Government and individual officials associated with the regime. The new measures also included disincentives for the provision of any major loans to Myanmar, and intensified existing restrictions on granting U.S. visas to Myanmar Government officials and their immediate family members. Similarly, the European Union reportedly warned of tough sanctions on the Myanmar Government, and called for the immediate release of Aung San Suu Kyi ('A Showdown Over Aung San Suu Kyi' 2003).

Calls to isolate Myanmar have been supported by international human rights activists and prominent Nobel laureates such as the Dalai Lama and Desmond Tutu, who have cited South Africa as an example whereby economic sanctions brought about significant measures towards democratisation ('Burma a pariah', 1995). In particular, Archbishop Desmond Tutu from South Africa has supported strongly economic sanctions against Myanmar. He commented, "Tough sanctions, not constructive engagement, finally brought the release of Nelson Mandela and the dawn of a new era in my country. This is the language that must be spoken with tyrants, for sadly, it is the only language they understand" (Tutu 1993).

Opinions, however, have been divided as to whether or not sanctions are effective in achieving their stated intentions, or whether they actually help to change the behaviour of the 'offending' government. As a result, debate has raged as to whether international business and the international 'community' should isolate, or engage with, Myanmar, often referred to as a South-east Asian 'pariah' state. In contrast to the U.S. position, other governments and regional groupings, particularly in Asia, have been much more reluctant to impose trade sanctions. Many of these Asian governments, along with a number of critics of unilateral trade sanctions, have often argued for a policy of 'constructive engagement' with repressive regimes that have contravened 'international' standards. The regional dimensions of this debate in South East Asia will be examined next.

Ironically, the term 'constructive engagement' was initially used by the U.S. and British governments in the 1980s to define their engagement with the then white minority apartheid government of South Africa. Again ironically the policy was adopted in the face of strong opposition from other nations including many Asian nations

(Mallet 2000, p. 43). A decade later, in the case of Myanmar, the situation has been reversed and the U.S. and the Western governments opted for 'isolation' while Asian governments supported 'constructive engagement.'

## **ASEAN and its Support for “Constructive Engagement” with Myanmar**

ASEAN was first founded in the 1960s by Asia's non-communist countries to protect the region against communist influence, and, accordingly, their development strategy centred on the market economy ('Expanding ASEAN', 1997). However, over the last two decades ideological divisions between non-communists and communists have slowly faded away. In 1995, Vietnam, still officially a communist state, became an ASEAN member ('Expanding ASEAN', 1997). With the new countries (Vietnam, Myanmar, Cambodia and Laos) joining the existing ASEAN member nations (Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam), the larger ASEAN group was made up of countries with different politico-economic systems. The core members have been strongly committed to market economies while the new comers were in the process of transition from a centrally-planned economic system to market-oriented economies (Yusoff 1997). In addition to major differences in political systems within ASEAN, there were also vast differences in terms of comparative levels of economic development. For example, ASEAN's poorest member, Vietnam, had a GDP per person of \$200-\$300 as compared to \$26, 000 for the richest member Singapore ('Never mind the quality', 1997).

While the U.S. and the European Union (EU), to some extent, have adopted a policy of “isolation” in regard to Myanmar, ASEAN governments and business communities have encouraged 'constructive engagement' with Myanmar ('Inexorably, the tide turns', 1996). ASEAN admitted Myanmar as a member nation in 1997 despite the policy of “isolation” adopted by the U.S. and EU governments (Masaki 1997). ASEAN took a different stance from the West because it considered “the West as posturing over Myanmar, trying to impose its own, inappropriate values on an Asian country” ('More repression in Myanmar', 1996). Asian leaders also questioned UN standards for assessing human rights. At a meeting in Bangkok before the UN World Conference on Human Rights, the governments of many Asian nations declared that they disagreed with the UN standards for human rights as they considered them to be 'prescribed' by the West. Instead, they stressed that an 'Asian' interpretation of human rights should be given 'due' consideration. According to these leaders, an 'Asian' interpretation of human rights focuses more on “economic growth and political stability for the benefit of whole communities more than individual freedom” (Mallet 2000, p. 41).

ASEAN was determined to engage with Myanmar, and it argued that an immediate change-over to democracy, the model proposed by the West, would create economic and social problems in Myanmar. Engaging with Myanmar, however, would be more appropriate in facilitating steady, stable, and gradual change ('More repression in Myanmar', 1996). In addition, Kruczek (1998) argued that instead of condemning ASEAN for admitting Myanmar, the West “should be celebrating” because, in his view, constructive engagement was the answer to dealing with international pariahs such as Myanmar.

Amidst these public disagreements between ASEAN and the Western nations over the Myanmar issue, it appeared that the governments of the South-East Asian nations were keen to develop business ties with Myanmar. Indonesian President Suharto's visit to Myanmar in 1997 was considered to be a gesture for his support for ASEAN's policy of 'constructive engagement' ('Country Watchlist', 1997). Similarly, Thai officials actively encouraged Thai companies to invest in neighbouring countries such as Myanmar, which were once political enemies ('From foes to financial friends', 1997). Hill (1995) reported that at a time when other nations were steering clear of dealing with the Myanmar junta, the Singapore government developed a close friendship with them, playing a role of a 'pathfinder' for Singapore's business sector. Singapore's Prime Minister, Goh Chok Tong, paid a visit to Myanmar in March 1994 and Myanmar's former Prime Minister, Than Shwe, returned the honour when he visited Singapore in June 1995, where he received red-carpet hospitality (Hill 1995). It was reported that Burmese pro-democracy supporters and liberals were displeased with Singapore investors who supplied the Myanmar military with weapons and who were collectively considered as “...a public defender of authoritarianism”. A senior opposition leader from National League for Democracy (NLD) was quoted as saying, “Singaporeans are all set to make money. They have no moral conscience at all” (Mallet 2000, p. 44).

Given the current situation, where despite the U.S. trade sanctions on Myanmar, foreign investments have still been trickling in, officially or unofficially, especially from neighbouring Asian countries, an important issue is how investors already operating in Myanmar could be encouraged to use their presence in an ethically constructive way. Schermerhorn (1997) was among those observers who have urged Asian investors in Myanmar “to add real meaning to constructive engagement.” Schermerhorn suggests that Asian businesses in Myanmar should be required to exhibit their real commitment to social as well as economic progress in Myanmar by, for example, financially contributing towards the welfare of the Myanmar people. To make this aim a reality, Schermerhorn placed the responsibility with Asian business leaders, who should develop a statement of principles in accordance with the April 16<sup>th</sup> resolution by the United Nations Commission on Human Rights, and these principles should guide their business practices in Myanmar.

While the Asian governments and Asian business community have agreed to engage with Myanmar as discussed above, the United States, and to some extent the countries of Europe, have continued to maintain their support for trade sanctions against Myanmar. Some critics have asserted that ASEAN's admittance of Myanmar demonstrated a lack of concern for the military regime's human rights violations, and was limiting the effectiveness of principled stance taken by Western governments (Humphreys 1996). For example, it has been claimed that “ASEAN is taking on not just one of the world's nastiest regimes, but an economy on the verge of collapse” (*Going for broke*, 1997).

Overall, there has been a widening gap between Asian and Western governments on the Myanmar ‘issue’ and ASEAN has been seen as risking its relationship with the West (*Expanding ASEAN*, 1997). Some European countries have gone so far as to introduce a ban on issue of visas to the Myanmar Government's officials (*Cook's orders*, 1997). Britain's former Foreign Secretary Robin Cook announced his intention not to invite the new ASEAN member Myanmar to the EU-ASEAN Joint Cooperation Committee meeting held in November 1997, and condemned the junta for having been highly repressive in stifling political dissidents, and also for being “irresponsible in that it is one of the few governments in the world whose member are prepared to profit out of the drugs trade rather than to seek to suppress the drug trade” (*Cook's orders*, 1997). Malaysia's Prime Minister, Dr Mahathir, responded to Mr Cook's intention not to invite Myanmar by urging ASEAN members to boycott the 1998 Asia-Europe Meeting held in London (*Cook's orders*, 1997). In addition, other ASEAN members refused to accept the objections made by the EU in regard to Myanmar's participation as an observer at the EU-ASEAN Joint Cooperation Committee meeting held in November 1997 (Than 1999, p. 221-22). Dr Mahathir also suggested that the financial woes of Southeast Asian nations were inflicted by George Soros, a multi-millionaire investor and a pro-democracy supporter, as a way of showing displeasure with ASEAN's admittance of Myanmar (*Going for broke*, 1997).

While the dispute raged on between ASEAN and Western governments, a key strategic issue for the ASEAN nations to consider was if the importance of holding meetings such as the Asia-Europe summit should be secondary to the inclusion of Myanmar (*Cook's orders*, 1997). Meanwhile, it appeared that the only “gain” for Myanmar from the public disagreement between the ASEAN and the West was that the country's international isolation has once again been brought to the fore (*Myanmar's seat at the back*, 1997).

While some critics have acknowledged that there were some real benefits associated with Myanmar's admittance into ASEAN, others have argued that the decision to admit Myanmar should not be rushed because the longer the regime had to wait for such international and regional recognition, the more likely it was that it would be gradually persuaded to improve its domestic record of governance (*Expanding ASEAN*, 1997). In addition, some analysts believed that the ASEAN should have made Myanmar's membership dependent on the degree of political freedom given to NLD and its leader, Aung San Suu Kyi, and until such a time, the regime should “be treated as polecats” (*More repression in Myanmar*, 1996). Despite the controversies discussed above, an important, if somewhat neglected, question was not so much why ASEAN eventually admitted Myanmar, but why the admission was fast-tracked.

## **Methodology**

The project was exploratory, and guided by the principles of the grounded theory approach (Glaser and Strauss, 1967) in that the methodological design of the study did not contain an a priori hypothesis. Such an approach, as opposed to engaging the participants with a pre-designed structured survey instrument, was appropriate given the exploratory and sensitive nature of the research. The data collection process involved semi-structured face-to-face interviews in Myanmar with executives handling international consumer brands. In total, over sixty interviews were conducted for the thesis. The transcripts were subsequently content-analysed using NUD\*IST (Non-numerical Unstructured Data\* Indexing Searching and Theorizing), a computer software program for qualitative data analysis.

## **Implications of Aspects of Market ‘Risk’ on Operational Strategies and Practices**

The interview findings on the operational difficulties experienced by businesses in Myanmar call for consideration of relevant theories on risk factors confronting foreign businesses in various ‘host’ country environments. The discussion will begin by examining extant literature in international management on various types of uncertainties surrounding foreign business operations in a host country. Two broad types of uncertainties have been identified and discussed in the literature: 1. political risk/uncertainties (Robock 1971; Simon 1982; Butler & Joaquin 1998), and 2. foreign exchange uncertainties (Dhanani 2004; Pantzalis, Simkins & Laux 2001; Jacque & Vaaler 2001; Aabo 2001).

In reality, it is not only the fact that such uncertainties do not exist in isolation from one another, there are also other forms of uncertainty that are not considered in any detail in the literature (i.e. uncertainties relating to government policy, social context, and patterns of competition). As an alternative method to existing approaches that mainly focus on considering individual uncertainties largely in isolation from one another, Miller (1992) has developed “A Framework for Integrated Risk Management in International Business.” Miller’s (1992) framework proposes consideration of “multidimensional uncertainty”, and argues that uncertainty variables are interrelated and should not be viewed in isolation from one another. For example, Miller’s (1992) framework extends the scope of corporate risk management approaches to consider a variety of business uncertainties, instead of restricting discussion and analysis to the question of possible financial losses. In this regard, the integrated framework was a significant contribution to international management literature in that previous analysis tended to concentrate on transaction costs theories in the international finance area. By considering a range of uncertainties, the integrated framework recognizes the complex nature of corporate decision making in that corporations weigh up various ‘trade-offs’ among a range of interrelated uncertainties, instead of concentrating on reducing or managing only one type of uncertainty at a time. In addition, the model expands the boundaries of corporate risk management approaches by giving thought to and linking both financial issues and management strategy formulations.

Miller’s (1992) framework contains two parts. As shown in Table 2, the first component of the model focuses on the categorization of uncertainties including three groups: 1) general environmental uncertainties, 2) industry uncertainties and 3) firm uncertainties. The second component, as shown in Table 3, focuses on corporations’ strategy formulations in response to uncertainties, including two types of strategy assessments: 1) financial risk management and 2) strategic management. In so doing, Miller’s framework offers potential for finding or testing relationships between uncertainty variables and corporate strategic responses.

TABLE 2: A CATEGORIZATION OF UNCERTAINTIES: APPLICATION TO THE MYANMAR MARKET

General Environmental Uncertainties	Industry Uncertainties	Firm Uncertainties
<b><i>POLITICAL UNCERTAINTIES</i></b>	<b><i>INPUT MARKET UNCERTAINTIES</i></b>	<b><i>OPERATING UNCERTAINTIES</i></b>
War	Quality uncertainties	Labor uncertainties X
Revolution X	Shifts in market supply X	Labor unrest
Coup d'etat	Changes in the quantity used by other buyers	Employee safety
Democratic changes in government X	<b><i>PRODUCT MARKET UNCERTAINTIES</i></b>	Input supply uncertainties
Other political turmoil	Changes in consumer tastes X	Raw materials shortages X
<b><i>GOVERNMENT POLICY UNCERTAINTIES</i></b>	Availability of substitute goods X	Quality changes
Fiscal and monetary reforms	Scarcity of complementary goods X	Spare parts restrictions X
Price controls	<b><i>COMPETITIVE UNCERTAINTIES</i></b>	Production uncertainties X
Trade restrictions X	Rivalry among existing competitors	Machine failure
Nationalization	New entrants	Other random production factors
Government regulation X	Technological uncertainty	<b><i>LIABILITY UNCERTAINTIES</i></b>
Barriers to earnings repatriation X	Product innovations	Product liability
Inadequate provision of public services X	Process innovations	Emission of pollutants
<b><i>MACRO ECONOMIC UNCERTAINTIES</i></b>		<b><i>R&amp;D UNCERTAINTY</i></b>
Inflation X		Uncertain results from R&D activities
Changes in relative prices		<b><i>CREDIT UNCERTAINTY</i></b>
Foreign exchange rates X		Problems with collectibles X
Interest rates		<b><i>BEHAVIORAL UNCERTAINTY</i></b>
Terms of trade		Managerial or employee self-interested behavior X
<b><i>SOCIAL UNCERTAINTIES</i></b>		
Changing social concerns		
Social unrest		
Riots		
Demonstrations		
Small-scale terrorist movements		
<b><i>NATURAL UNCERTAINTIES</i></b>		
Variations in rainfall		
Hurricanes		
Earthquakes		
Other natural disasters X		

TABLE 3: ORGANIZATIONAL RESPONSES TO UNCERTAINTIES: APPLICATION TO THE MYANMAR MARKET

<b>FINANCIAL RISK MANAGEMENT</b> Forward or futures contracts Insurance	
<b>STRATEGIC MANAGEMENT</b> <b>AVOIDANCE</b> Divestment Delay new market entry Low uncertainty niches	X X
<b>CONTROL</b> Political activities Gain market power Exchange of threats Vertical integration Horizontal mergers and acquisitions	X
<b>COOPERATION</b> Long-term contractual agreements with suppliers or buyers Voluntary restraint of competition Alliances or joint ventures Franchising agreements Licensing and subcontracting arrangements Participation in consortia Interlocking directorates Interfirm personal flows	X X
<b>IMITATION</b> Imitation of product and process technologies Follow other firms in moving into new markets	X
<b>FLEXIBILITY</b> Diversification Product diversification Geographic diversification	
<b>OPERATIONAL FLEXIBILITY</b> Flexible input sourcing Flexible workforce size Flexible workforce skills Flexible plants and equipment Multinational production	X X

Adapted from: Miller, K. D. 1992, 'A Framework for integrated risk management in international business', *Journal of International Business Studies*, vol. 23, no. 2, pp. 311-32.

The integrated risk management model is suited to the current study because it is inclusive of uncertainties at three levels (general environment, industry and firm levels) and therefore comprehensive. In particular, the model's emphasis on linking uncertainty variables to strategy formulation is particularly suited to the current study in that it has examined the nature of both international and domestic factors influencing corporate strategies in the Myanmar market.

Application of Miller's (1992) framework to the current study's findings provides insights into the nature of various risk factors presented to foreign businesses in the Myanmar market. These relevant risk factors are indicated in Table 2 by a symbol "X" and are discussed below:

**General environmental uncertainties:** businesses in Myanmar undoubtedly were exposed to a high degree of "political uncertainty", given the current political impasse between the National League for Democracy, the opposition party led by Daw Aung Sun Suu Kyi, and the military government of Myanmar. While direct

concerns about political uncertainty or instability were expressed only infrequently during the interviews for this study, this is likely due to the topic's very high political sensitivity for businesses in the country. Regarding "policy uncertainties" and "macro economic uncertainties", businesses in Myanmar encountered numerous problems and this was a recurrent theme within the interview findings. In particular, they faced onerous trade restrictions, barriers to profit repatriation, infrastructural inadequacies (often exacerbated by prolonged rains in the monsoon season), high inflation and foreign currency exchange difficulties. In terms of "social uncertainties", the interviewees did not discuss this issue. In part, this seeming lack of concern in regard to dramatic social instability may be related to the authoritarian nature of the regime government and its apparent tight control of power, so much so that social unrest/riots would appear to be somewhat unlikely, at least in the short to medium term.

Despite a high degree of political uncertainty (as to which party would prevail and when this was likely to occur), it was apparent that most businesses felt confident that the broad thrust of current economic policies (greater openness to the global economy compared to the previous "Burmese Way to Socialism" pursued by the Ne Win government from 1962 to 1988) would continue regardless of whether a democratic transition was to occur in governance in Myanmar. For instance, the general sentiments of respondents who discussed this issue appeared to centre on a belief that there would not be any drastic changes in terms of trade policies, as any new or transitional government would require equivalent levels of foreign investment. As a result, there was a view that foreign participation in the country would not be reversed, or, given various existing trade restrictions imposed by the regime government, that the business environment would be no 'worse' under a new government. In a more negative connotation, there was an impression among several of the interviewees that there unlikely to be positive changes towards a more favourable and competitive local business environment regardless of the political character and composition of the government. This feeling of 'pessimism' derived from their apparent belief that the Myanmar business environment would not improve drastically because there were too many variables to deal with and structural problems to be 'fixed' before any significant changes to trade policies could be successfully introduced.

**Industry uncertainties:** uncertainties in the general business environment can result in significant uncertainties at the industry level. For instance, a severe shortage of supply in the market ("input market uncertainties") was caused by the Myanmar government's periodic bans on the import of most consumer goods. In addition, businesses in Myanmar also experienced high level of "product market uncertainties" whereby genuine brands constantly faced intense competition from smuggled goods and imitation brands, and also consumer demand changed frequently. Businesses in Myanmar also confront the problem of a shortage of complementary products. For instance, a scarcity of good quality petrol in the country has increased the level of need for after-sale service offered by new car dealers in Myanmar. Such industry uncertainties were also affected by government policy and macro economic uncertainties, and by the country's recent transition towards 'marketisation'.

**Firm uncertainties:** businesses in Myanmar faced numerous uncertainties at the firm level. Regarding labour issues, while labour was inexpensive and abundant in Myanmar, the quality of the workforce was considered to be low in terms of their exposure to international practices and standards. Individual enterprises in Myanmar also faced shortages of raw materials and other inputs due to the Myanmar government's bans on imports and the generally poor state of infrastructure in the country. In addition, "problems with collectibles" (account receivables) were also experienced by some wholesalers, and this problem has been exacerbated by the highly inflationary climate of the country.

**Strategic responses to uncertainties:** in terms of assessing "financial risk management strategy", brand principals who were exporting into Myanmar via distributors did not bear significant financial risk in that, in many cases, payment for goods were normally made outside Myanmar. For instance, it was common for some distributors to own a company outside Myanmar, and it was this company that completed tasks such as paying for goods bought for export into Myanmar. While this mode of payment applied for some principals, others had to wait until the goods were sold, and in such cases, there would be a degree of risk in terms of obtaining final payment for goods sold. In contrast, brand principals who had direct investment in Myanmar (in the consumer goods sector in the country, foreign investment went into areas such as human resources, distribution, sales and marketing) carried significant risks in terms of confronting government policy and macro economic uncertainties. However, either case involved some degree of financial risk because it was found that many principals were required to assist distributors

in terms of providing them with discounts, sales incentives, training, and budgets for advertising and promotions. In particular, they had to accommodate for losses incurred in Myanmar due to high inflation and also due to intense competition from border traders.

In terms of assessing “strategic management” strategy, as marked by “X” in Table 3, foreign businesses in Myanmar appeared to have made the following strategic decisions. A number of corporations made a strategic decision to divest from Myanmar responding to both international pressures and operational difficulties within the country. For those firms that remained, some (for instance, key players in the consumer electronics sector) endeavoured to achieve greater levels of “vertical integration” to enhance “control” by utilising their own sales force, distribution vehicles and establishing and managing their own warehouses and product showrooms, instead of relying on wholesalers and other “middlemen”. In relation to “cooperation” strategy, firms have extensively used “alliances and joint ventures”, and also in a select number of cases “voluntary restraint of competition” in order to keep their involvement in Myanmar comparatively undetected, so as not to aggravate pro-democracy campaigners. In relation to “imitation” strategy, it was found that key players in the Myanmar consumer goods sector exhibited a tendency to imitate one another in terms of company structure and marketing strategy. In particular, it was observed that market leaders appeared to have spent similar amounts of advertising money in the Myanmar market. In the area of “operational flexibility”, the fact that Myanmar operations were managed from Bangkok, Thailand, has given brand principals a relatively high degree of flexibility in the area of human resource management and product sourcing. Examples of this strategy were evident in cases whereby products made in Thailand or designed for that market were sent to Myanmar from the Bangkok office, and in the relatively common situation where personnel from the Thai office either temporarily resided or regularly visited the Myanmar branch operations.

While models such as Miller (1992) provide comprehensive coverage on uncertainty factors at industry or firm level, they are somewhat lacking in terms of examining external factors. In this regard, Alon and Martin’s (1998) “A normative model of macro political risk assessment” (shown in Table 4) provides a structured qualitative model to estimate the level of political risk imposed by a host country on multinational corporations, and is complementary to other models that concentrate on risk factors deriving from internal factors.

TABLE 4: MACRO POLITICAL RISK CONSTRUCT

	<b>Internal</b>	<b>External</b>
<b>Government</b>	<ul style="list-style-type: none"> <li>• Degree of elite repression</li> <li>• Degree of elite illegitimacy</li> <li>• Likelihood that regime change will affect policy</li> </ul>	<ul style="list-style-type: none"> <li>• Likelihood of political violence</li> <li>• Degree of involvement in international organizations</li> <li>• Possibility of restrictions on investment, capital, or trade</li> </ul>
<b>Society</b>	<ul style="list-style-type: none"> <li>• Degree of fragmentation</li> <li>• Potential for social conflict</li> <li>• Sense of nationalism, xenophobia, alienation or fundamentalism</li> </ul>	<ul style="list-style-type: none"> <li>• World public opinion</li> <li>• Disinvestment pressure</li> <li>• Regional diversity and incongruent interests</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• GDP per capita growth</li> <li>• Income distribution</li> <li>• Likelihood that economic goal will be met</li> </ul>	<ul style="list-style-type: none"> <li>• Future economic policies regarding foreign direct investment</li> <li>• Likelihood of balance of payments problems</li> <li>• Likelihood of currency inconvertibility/instability</li> </ul>

Source: Alon, I. & Martin, M. A. 1998, 'A normative model of macro political risk assessment', *Multinational Business Review*, vol. 6, no. 2. Retrieved: April 16, 2004, from ProQuest database.

Alon and Martin’s (1998) macro political risk assessment model considers risk factors relating to government, society and economy both at ‘external’ and ‘internal’ levels. In particular, the macro political risk assessment model adds to Miller’s (1992) framework of integrated risk management in two ways as follows. Those are the “shaded” areas in Table 4.

- a. The inclusion of local economic-related factors (“per capita GDP growth, income distribution and the likelihood that economic goals will be met”);
- b. The consideration of government and society related factors at the external level (“the likelihood of political violence, the degree of the country’s involvement in international organizations, and the

possibility of regulatory restrictions on investment, capital, or trade flows, world public opinion, disinvestment pressure and regional diversity and incongruent interests”).

In relation to local economic-related factors, it is not only the case that Myanmar has been one of the poorest in the world ('A Tiger with a Trunk' 1996), but also that income is unequally distributed, resulting in an apparent lack of a developed middle class in Myanmar. Compared to other emerging markets in Asia, Myanmar is therefore lagging behind in terms of developing a thriving and dispersed population of middle class consumers to fuel economic growth. For instance, India's middle class has been estimated to number close to 300 million, according to India's National Council for Applied Economic Research, while the Economist Intelligence Unit has estimated that middle class demand for motor vehicles would reach 500,000 units during 1998 (in Moore 1998)). The expanding Indian middle class is giving rise to developed and sophisticated consumer product markets, and this growth has immense appeal for prospective foreign investors (Jacob 1994b). Similarly, countries in Central Europe and Latin America have also seen the growth of a viable middle class, and indeed, according to the U.S Department of Commerce, the biggest emerging markets in the world were “China, Indonesia, India, South Korea, Turkey, South Africa, Poland, Argentina, Brazil, and Mexico.” (Jacob 1994a).

## **Conclusion**

In relation to external government-related factors, in particular, “the possibility of regulatory restrictions on investment, capital, or trade flows”, as this study has detailed, Myanmar has been a prime example whereby an investment climate has been restricted by ‘external’ regulatory restrictions from Western governments and institutions. This factor has had a significant impact on corporations’ market entry and business development strategies, which were also similarly shaped by Myanmar’s internal weaknesses as discussed previously. In this regard, it is important to note that both external and internal factors have influenced strategy formulations on risk in the Myanmar market.

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Contact the Author for a list of references.

# Political Economy of Korea's New Globalization Strategy: Strategic Implications for Multinational Corporations

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## Abstract

One of the most revolutionary aspects of the Korean company since the 1997 Asian financial crisis is that Korea has emerged as a major recipient of foreign capital for both strategic and non-strategic industrial areas, ranging from consumer products to telecommunications. In particular, the Korean government has shown its ambition in recent years to level up the country's economic status by transforming the nation into an international business hub in the Asia-Pacific region. This is the backdrop of this paper, which takes a political economy and cultural approach to the Korea's new globalization strategy. By examining the seemingly changing role of the Korean state in the market and economy as well, this paper offers a cultural and institutional insight into the critical and often invisible issues to be considered for a successful realization of the vision and its strategic implications for multinational corporations.

## Introduction

Until the 1997 Asian financial crisis, Korea was one of few Asian countries that did not liberalize inflows of foreign direct investment (FDI). However, the '97 financial crisis to large extent *changed* the whole picture of the Korean FDI chapter (Park, 2003). The late 1990s saw the sudden emergence of Korea as a major recipient of foreign capital for both strategic and non-strategic industrial areas, ranging from consumer products (eg alcohol, tobacco, cosmetics, textiles, etc) to telecommunications. By 2001, on a cumulative basis, there were more than 11,500 foreign firms invested in Korea. Further investment de-restrictions coupled with a lower value of the currency (won), declining status of the *chaebol* (mostly family-owned large industrial conglomerates in Korea), and the government capacity which resulted from the '97 financial crisis made investments more attractive. In particular, during the four year period after the crisis (1998 to 2001), Korea has attracted around US\$52 billion in FDI, which is almost more than double the entire amount of the previous four decades. More strikingly, the Korea Times reported in late December 2004, foreign investors owned almost 42 percent of stocks listed on the Korean Stock Exchange by December 2004 (Cho, 2004). This implies that the Korean market is rapidly changing and open to outsiders offering opportunities to maximize market benefit in Korea. In particular, the Korean government has moved towards a new market-driven paradigm of economic growth based on FDI replacing the decades old state-driven and mercantilistic economic growth model. The IMF's proclamation made in 2000 well reflects the above, "over the past two years bold policies and a commitment to reform have made Korea a more open, competitive, and market driven economy" (Crotty and Lee, 2001a: 28). One of the attempts made by the government is its ambition to transform the nation into a business and economic hub of Northeast Asia. However, despite the growing concern on the topic among government agencies, industry, media and academia, the absence of a cohesive and realistic approach to the issue is a relative void in the literature.

## Korean Financial Crisis: A Triggering Factor for Korea's New Globalization Strategy

Under the guidance of the International Monetary Fund (IMF) since early 1998, the Korean economy rebounded from its late 1997 meltdown faster than expected. Korean macroeconomic indicators have shown significant improvements. After falling nearly 7% in 1998, real gross domestic product (GDP) was almost 11% in 1999 and nearly 9% in 2000. Many early neo-liberal supporters like international financial institutions described Korea's 'economic recovery and financial stabilisation' as remarkable (Crotty and Lee, 2001:183).

The Korean economic woes began when its trade deficit ballooned beginning in 1996 and the value of its currency slipped. At that time, Southeast Asian currency and financial shock waves reached the country. This happened at a time when the Korean market was saddled with billions of US dollars of bad loans (US\$145.2 billion or 30.3% of GDP). Then, various events that occurred since early 1997 indicated that the collapse of its economy (formerly the 11<sup>th</sup> largest economy and 14<sup>th</sup> largest trading power) was imminent. In January 1997 Hanbo Steel, formerly the nation's 14<sup>th</sup> largest business group, collapsed under US\$6 billion in debts and in March 1997 another leading conglomerate, Sammi Steel fell. Furthermore, in July Kia, Korea's third largest car manufacturer, suffered severe credit crunch and was nationalised in October after the Korean banks refused to provide more loans. By the end of 1997, seven, including the above groups, of the 30 largest *chaebol* went bankrupt as well as a large number of small and medium-scale companies. These in fact threatened the stability of the banking sectors and consequently provoked extreme concern among foreign bankers, which redirected their lending policies. As a consequence, the picture of the spectre of overseas loan defaults changed as the Korean foreign exchange rate diminished to a much lower level; *won* (Korean currency) dropped below 1000 to the US dollar since 17 November 1997.

Consequently, the Korean government officially requested from the IMF for emergency help on the 21<sup>st</sup> of November 1997 to restore overseas confidence. This marked the end of the country's long-hailed reputation as a newly industrialising country and even as an advanced industrial country. Korea is now going back to the stage of Asia's emerging economies like Thailand, Vietnam and Indonesia. 'The miracle on the Han' no longer exists or, applicable to the Korean economy in the IMF loan era. As of December 3, 1997, the Korean economy was officially under the IMF control like Indonesia.

Korea's financial crisis has brought various but serious economic problems for Korea (Moon, Lee and Yoo, 1999). The GDP growth rate in the first quarter (January-March) of 1998 was -3.8% year on year, which was the lowest since the -7.8% growth rate in 1980. Changes in unemployment and inflation rates since November 1997 are also remarkable. From 2.6% at the end of November 1997, the unemployment rate rose drastically to 6.8% by the end of 1998 and the number of unemployed has already exceeded 1.5 million (Moon *et al.*, 1999:14). The consumer price index rose from 4.3% in November 1997 to 7.5% in 1998, largely because of the exchange rate devaluation (Moon *et al.*, 1999:33). UNCTAD (the United Nations Conference on Trade and Development) in its annual report on trade and development estimated that Korea's unemployment rate would reach around 10% by the end of 1998. The most significant drop in terms of employees since the currency crisis is in manufacturing, particularly in sectors related to infrastructure and automobile.

Despite the negative figures for GDP growth rate and increasing inflation, Korea has experienced a large trade surplus since December 1997. However, this has not been caused by a rise in exports, but by the rise in Korean won/US Dollar exchange rate. Excluding gold exports, Korea's export growth rate was only 1.4% in January 1998 and it turned negative in May 1998. More important, the overall trade surplus was 35.9% decrease in imports. It seems clear that there are more difficult times ahead for the Korean economy and business as well. Simultaneously, this crisis offered foreign multinational corporations (MNCs) with a new market environment. As then President DJ Kim's statements well reflect this, "market reforms and foreign investment are the only solution to Korea's problems, and the crisis will be remembered as a blessing" (Crotty and Lee, 2001).

Ironically, the '97 financial and economic crisis needed an old tradition of neomercantilist intervention of the government, as was the case of the Park Chung-Hee regime in the 1970s. This has been proved in recent years. Top five *chaebol* groups (Hyundai, Samsung, Daewoo, LG and SK) agreed to cut their subsidiaries from 264 to around 130 by 1999. This agreement was made in a meeting on 6 December 1998 between the President and owners of the above top five groups. These groups set out a firm timetable for reducing debts (below 200% by the end of 1999) incurred by an opaque accounting system and ending inter-subsidiary cross payment guarantees.

This landmark agreement played a major part in attracting the nation's much needed foreign capital. This is because the lack of transparency and complicated debt payment system among those subsidiaries have been major hurdles for foreign investors doing business in Korea. For example, according to the FKI (Federation of Korean Industries), the top five *chaebol* groups by the end of October 1998 attracted US\$14.2 billion through sales of their business divisions and assets. Regarding the so-called the President-*Chaebol* Accord of December 6, Kim Dae Jung asserted, 'the accord ensures that no Korean *chaebol* will be able to hide anything about their operations as the accord stipulates the promotion of full corporate transparency'.

It should also be noted that President Kim asserted in his inauguration speech on the 25<sup>th</sup> of February 1998, 'no more authoritarianism dressed up in *Asian values*'. Asian values to President Kim also means that democracy can be sacrificed in an effort to achieve fast economic development. Therefore, this Asian crisis, especially for Korea, is the moment for the country to transform its previous autocratic, command-and-control societies into democratic, flexible, and market-driven economies. For example, the introduction of foreign capital in Korean banks means an end to overt and covert government influence on financial institutions.

It seems clear that the IMF era, which required a fundamental overhaul of the structure of Korean political economy, would play as a watershed for foreign investors with long-term implications with market opportunities. Among the Asian countries suffering from the post mid-1997 currency melt-down (Indonesia, Thailand, and Korea), Korea is perhaps in the best position to recover. Although the severe side effects of the IMF program such as social instability should not be underestimated, policy implementation adhering to the IMF conditions appeared to be the strongest and Korea still has rich market potential, a strong industrial base, an abundance of highly educated manpower, a high saving rate, a record of growth, and high market value as a strategic business location.

Recent performance of the Korean economy substantiated the above. Under the guidance of the IMF since early 1998, the Korean economy rebounded from its late 1997 meltdown faster than expected. Korean macroeconomic indicators have shown significant improvements. After falling near 7% in 1998, real GDP was almost 11% in 1999 and near 9% in 2000. Many neo-liberal supporters like international financial institutions described Korea's 'economic recovery and financial stabilisation' as remarkable (Crotty and Lee, 2001, p.183). Consequently, the IMF loans were paid off in the mid-2001. A vivid example of this changing picture is the FDI trends in Korea. During the four year period after the crisis (1998 to 2001), Korea has attracted around US\$52 billion in FDI, which is almost more than double the entire amount of the previous four decades (Kim and Choo, 2002, p.30); by 2000 more than 1,100 business sectors of Korea had been fully opened up to foreign investors (Economist Intelligence Unit, 2002, p.29). Korea's recent inward FDI trend implies that the Korean market is rapidly changing and open to outsiders offering opportunities to maximize market benefit in Korea. On the other hand, the Korean government has shown its ambition in recent years to level up the country's economic status by setting up the new national agenda. In April 2002, the Korean government, then the Kim Dae-jung administration, unveiled its grand ambition to turn the nation into an international business hub of Northeast Asia. This master plan included establishment of the so-called "special economic zones" that consist of 132 sq km (40 million pyeong) of land encompassing Youngjong Island, Songdo New Town of Incheon and Gimpo to promote international business. This new vision by radically liberizing market environment (covering foreign investment, finance, logistics, information technology, manufacturing and research and development) has emerged as one of the new government's (the Roh Moo-hyun administration, February 2003 – present) ten national agendas (Kim 2003: 17). In particular, Korea's new President Roh has established a special task force team to develop and implement the new vision, specializing in three main specific sectors including logistics, finance and industry. The logistics dimension is considered to be crucial given Korea's strategic and business location between Japan and China. The Roh administration has also promised to improve the business and operating environment for the multinational corporations (MNCs) through socioeconomic and institutional reforms such as labor market conditions, chaebol, liberalization of immigration policy and tax benefits at the national level. In other words, the attraction of MNCs has become one of the top priorities for the current Korean economy and the major component of the Korea's new globalization strategy (Sachwald 2003).

### **Hub Vision: New Paradigm?**

It seems obvious that Korea needs to establish a regional business center as its survival strategy in this rapidly changing and competitive age of globalization, especially with the geographical and technological advantages that Korea possesses. However, on the question of "hub" there seems to be a variety of opinions. Some refer to a logistical hub given Korea's geographical advantage (its close proximity to China and Japan) and its possession of a newly established airport and potential mega-hub ports (Lamers 2002; Kim 2002; Feller 2003). Others researchers

(Seitz 2002; Raubach 2002; Rooney 2002) focus on Korea as a regional financial center given that the nation is blessed with good infrastructure such as modern telecommunication facilities and high-speed internet network. Despite a sound and coherent strategic direction yet to emerge, Korea's new vision has seemingly been designed in an effort to create an image of Korea as a home for MNC's regional headquarters (RHQs), bringing foreign capital and technology as a consequence of Korea's becoming the logistical and financial center of Northeast Asia.

Despite the Korean government's and the media's effort in recent months, the majority of foreign companies in Korea do not seem to agree on what exactly is meant by "hub" (Lee and Hobday 2003). There seems to be two critical reasons that support this observation. First, to foreign companies and experts, Korea as a business hub, especially a regional financial center by any standards is unrealistic. As Kwon argues in his study on Korea's financial liberalization, although financial globalization is an inevitable force, the idea of financial hub vision seemed to come out of no consideration of experts' strategic advices (Kwon 2004). Unlike Hong Kong and Singapore who have successfully built a "foreign-friendly business environment" such as English-speaking domestic workforce, effective urban-planning for foreign professionals, and the overall global mind-set among government bureaucrats, business leaders and employees, etc. Equally important, Korea still lags Hong Kong and Singapore in infrastructure and internationalization and has a smaller domestic market than Japan and China (Feller 2003). Second, the market (48 million people) size and its potential of the Korean economy coupled with Korea's growing importance as a market in the global economy and their (MNCs) global strategies to expand to new markets turned out to be three most persuasive factors in MNCs' initial decision to invest in the Korean market.

Until very recently Korea has been among the least receptive to foreign direct investors in the Asian region, with the inflow of FDI accounting for just 1.1% of gross fixed capital formation in 1995. This contrasts with a regional average of 9%, and ratios of 25.7% in China, 24.6% in Singapore and 17.9% in Malaysia (Morgan 1997). Although FDI in Korea in 1996 increased sharply, a rise of 65% in amount (US\$3.2 billion) over the previous year, Korea still compares poorly in terms of FDI (2.2% of GDP) with countries like China (18.2%), Malaysia (28.5%) and Taiwan (7.3%) (European Union Chamber of Commerce 1997: 60; Sakong 1998: 105–106). Korea was one of the few Asian countries that did not liberalize inflows of foreign capital until the mid-1990s. Until 1993, non-residents were given very limited access to the Korean stock market while the types of securities that local firms could issue abroad were expanded.

The main reason for not having a larger business presence in Korea is due to its long history of economic nationalism stimulated by negative experiences as a result of earlier interactions with foreign regimes. A strong belief in self-sufficiency has inevitably resulted in a tough business climate, seemingly especially hostile to foreign companies. Korea has always been for foreign companies a difficult market to set up and invest in. It has also been difficult to form joint ventures so it has not been an easy market.

According to analysis by the Economist Intelligence Unit (EIU 2002) on FDI environment, Korea was ranked as the least favorable destination among 60 countries in which to invest, although Korea was ranked ahead of Japan and Thailand.

One of the major indications from the above study is that although there is a general skepticism among foreign business community on the variable quality of the tax regime and rigidities in the Korean labor market, the sheer scale of the market opportunity coupled with the ongoing and progressive process of deregulation and economic stability combine to create a major upside. In March 2002, the American Chamber of Commerce in Korea (AMCHAM) conducted a market environment survey with CEOs (approximately 1,700 individuals) of the Fortune 500 companies in the Asia-Pacific region on eight categories including Korea's macroeconomic and global business environment and perception of the Korean market in comparison with Hong Kong, Singapore, Shanghai and Tokyo (AMCHAM 2002). The survey echoes the EIU analysis (2002) in that while the CEOs believe the market potential is perceived to be bright, Korea's brand image and global business environment are far less competitive than other major cities of Asia.

#### **102 MNCs' Perception on the Feasibility of South Korea**

It has been taken for granted that Korea's economic policy over the last three decades has been strongly nationalistic. Prevailing perceptions are that there is chronic inefficiency and opaqueness in the Korean government and across society, difficulty in market access, unequal treatment in the domestic market, and relatively higher political and social instability than in other major Asian markets. Many (foreign companies in Korea) still believe that although

Korea's economic development over the last few decades and deregulation since the financial crisis of 1997 have been impressive, elements in the environment such as corruption, labor-management conflict, taxation and red tape are no better, and perhaps worse, than other Asian countries. A fundamental and obvious implication of this irony is that Korea is a tough market to invest in but the market and its potential overwhelm the obstacles and other issues that hinder their operation in Korea.

## **Hub Feasibility**

On the surface, there is no doubt among foreign business community that Korea has an enormous potential to be a business hub in the Northeast Asian region since the nation has already achieved internal and external requirements. Internally, Korea, according to Porter (1990) possesses a strong competitive advantage in factor conditions both in basic and advanced factors. Over the last four decades, Korea's lack of natural endowments has caused the nation to invest in the creation of advanced factors such as education, infrastructure and advanced communications systems to make its industries globally competitive. Korea's telecommunication infrastructure (utilization of internet) is already second in Northeast Asia. Korea is also investing very aggressively in the essential infrastructure for a business center such as construction of a high-speed railway between Seoul (capital city) and Busan (second largest city in Korea), upgrading of deep-sea ports in Busan and Gwangyang and the establishment of the new international airport in Incheon. Further, China's entry to the World Trade Organization (WTO) and the gradual shift of business activity from Southeast to Northeast Asia in accordance with the rapid but strong economic development of the region will accelerate Korea's role in the region. But Korea still considered among CEOs of MNCs, in general, to be an unattractive place for doing business. Thus, Korea's new vision for becoming Northeast Asia's business hub is nothing but a desk theory.

## **Government**

A crux of the International Monetary Fund (IMF) requests in 1997 was to uproot crony capitalism; non-transparent financial practices involving government, the chaebol and major banks; and the prolonged but rapid wage increase that outstripped the gains in labor productivity, which all contributed to the erosion of Korea's international competitiveness.

A critical point is that until the advent of President Kim Dae-jung administration (1998 – 2002), the government-chaebol alliance has been very active, using the control of finance (Bank of Korea) as a key policy tool. This enabled the government to have control over politics and led to the practice of favoring people and companies (chaebol) in regard to economic policies. A number of chaebol groups benefited from this tight alliance, especially when they needed financial help in expanding their industries overseas, including European countries. It is no wonder that most of the top 30 chaebol groups were found to have piled up debts averaging about 4.5 times more than their assets in 1997. The debt-to-equity ratio averaged 449.4% in 1997. The top 30 chaebol groups accumulated a total debt of 249.67 trillion won (US\$177 billion). This shows a sharp contrast with other countries like the US (160%), Japan (206%) and Taiwan (86%) (Gong 1999). Among the heaviest borrowers were the big five chaebol: Hyundai, LG, Daewoo, Sunkyung and Samsung. The Korean government is still regarded as a "god father", presiding over most aspects of economic affairs (Kim 1999). Korea's political and economic structures are still under government influence. Korean financial sectors, over the last four decades, have been under the government umbrella. Key figures in the major banks used to be appointed by the president himself and all financial matters were dealt with by the Ministry of Finance (now the Ministry of Finance and Economy). Although there has been some change in terms of the government and president's perception towards the role of banks since the IMF involvement in the Korean economy, the above tradition is still prevalent. This is why the role of the Korean government and bureaucrats still does not make sense to many foreign investors in Korea (Lee and Hobday 2003).

The Korean regulatory environment, difficult even for Korean firms, poses a particular challenge to the foreign investors (Office of the Investment Ombudsman (OIO) 2001). It is one of the most urgently needed areas to be corrected for Korea to become a regional business hub. Laws and regulations are often generally framed. In

particular, government's current policy of frequent working-level post rotation (1 to 2 years) decreases the degree of expertise. The meaning of the law in practice thus depends on discretionary interpretations by working-level officials, thus increasing the opportunities for inconsistent application, discrimination and corruption. Working-level officials, particularly in divisions like Immigration and Taxation Departments, often rely on unpublished internal ministerial guidelines and unwritten administrative guidance in interpreting and administering the law. But one thing that differentiates Korea from the rest of the world is that the personal relationships are a little bit more effective in Korea. These networks incorporate school friends (secondary and tertiary) going back 40 to 50 years, the region from which people originate, particular universities and of course army friends. The following remarks made by a CEO of an MNC made at the interview with the author in Korea depicts the difficulty of doing business in Korea. "When we go the relevant government agency, you find most of the bureaucrats are from one of the top universities in Korea. Meanwhile, in filing for registration, it usually takes 2 or 3 years because it requires heaps of documents. But if an employee of a certain company and the bureaucrats are from the same university, they let the company know about the required materials before the review process is complete. So the company can prepare all required materials ahead of other companies and they can save a considerable amount of time. That is not possible for foreign companies. Now that we know this sort of practice, so we select a special person who does that kind of lobbying".

One key aspect of Korean working environment that foreign countries must come to grips with is that of the confrontational relations between labor unions and management (Sakong 2003). In fact, apart from more general deterrents to FDI, the Korean labor market is the single most consistent worry by foreign MNCs. Many foreign chambers of commerce like AMCHAM believe that the Korean labor law gives significant benefits to the Korean union members with weak protection for management (AMCHAM 2002). For example, Korean labor laws still discourage firms from dismissing staff by requiring companies recruiting new staff in two years following dismissals to try to rehire laid-off workers and, in cases involving large numbers of workers, to notify the Ministry of Labor in advance, providing the reasons for the dismissal and proof that they have consulted sufficiently with staff (Economist Intelligence Unit 2002: 18).

The Korean labor unions are militant and tend to pursue their aims in a merciless way. A failure to understand the nature and style of the process will be, at the very least, demoralizing for an expatriate manager. As Sakong claims that "Korea can become Northeast Asia's business hub – if only it can provide a business-friendly environment" (Sakong 2003).

Favorable FDI policies and laws (tax and labor) coupled with appropriate infrastructure for various hubs such as finance, logistics and other businesses may attract MNCs and eventually their RHQ2. But issues concerned with socio-political and business cultures should not be underestimated. In other words, human issues are as important as business matters. Paradoxically, international businesses are all about humans and their families. Despite much publicized propaganda (establishing a residential complex for foreigners in the special economic zones) on ongoing improvements in relation to the quality of life in Seoul, the reality is that none of the above meets global standards. Importantly, many foreign companies put a high priority on their children's education, weekends, food, convenience, double-standard renting systems and cost of living in Seoul as much as business concerns (Lee and Hobday 2003). If Korea has less to offer to potential foreign residents, it is hard to attract foreign companies as well. Although there have been a few special economic zones designated (one in near Incheon international airport for business hub and two in the areas of ports of Pusan and Kwangyang for logistics hubs) where foreigners can find more favorable business and living environments (e.g. income-tax exemptions, simplified visa requirements, financial support, international schools, hospitals, accommodations, etc.) (Feller 2003), the government should also need to offer a credible reason that there will be no disadvantage in terms of convenience for existing foreign companies to shift their business operations to outskirts of Seoul. Further, in order for Korea remain as a Northeast Asian business hub candidate, more transparent measures should be taken to improve the regulatory framework and supervisory process in implementing plans and initiatives. In other words, even the "special economic zone" concept is not persuasive yet, rather it only serves as a symbolic gesture.

## Conclusion

This paper has delivered an analysis of Korea's new globalization strategy initiated by the Korean government in early 2000s. In doing so, it has offered cultural and institutional insights into some of the most critical issues to be considered for a successful transformation of Korea into a business hub of Northeast Asia. Insights and critical evaluation have been produced especially on various different interpretations of the hub concept and socio-cultural and institutional barriers to becoming a hub. In relation to Korea becoming a business center of Northeast Asia, and the general problems in the business environment for MNCs (which would need to be overcome for most MNCs to choose Korea as a hub), there is also a lack of clarity over the concept of hub, the parameters of the region targeted, and the timetable for achieving hub status.

This study has also shown that while the foreign business community in Korea unanimously is in favor of Korea's great potential to be a business hub of Northeast Asia, many of MNCs operating in Korea perceive the new vision as "too ambitious" and "unrealistic" unless there is a stark change in the current form of Korea's internal and external market environment.

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# Prospects of Monetary Integration in East Asia: The Role of an Asian Monetary Authority

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## Abstract

In extending liquidity support from the original ASEAN Swap Arrangement (ASA) to a network of bilateral swaps and repurchase agreements (BSA) to the thirteen ASEAN+3 (China, Korea, and Japan) countries, the Chiang Mai Initiative (CMI) gives a new lease of life to Japan's initial proposal of an Asian Monetary Fund shortly after the 1997 Asian financial crisis. Empirical evidence is not conclusive as to whether East Asia satisfies the criteria for an Optimum Currency Area (OCA). However major forces such as the growing intra-regional trade and financial integration; the need to insulate intra-regional exchange rate variability or averting future financial crisis contagion are driving the region toward some common currency arrangements. This paper argues in favor of the establishment of an Asian Monetary Authority (AMA) as the next logical step after the CMI. As a lender of last resort, AMA can provide liquidity support on a larger regional scale. AMA can play other strategic roles to unify the region's diverse economic and political interests such as mobilizing East Asia's vast foreign reserves or enhancing the development of East Asian bond markets.

## Introduction

Since the breakdown of the Bretton Woods exchange rate system in 1971, the international monetary system has departed from a rigid centralized administered framework to a more flexible exchange rate regime. Goodhart (2002) highlighted three distinct features of the international monetary system:

- The exchange rate regime of the 1970s as supported by agreed parities gave way under the combined pressures of divergent inflation and massive capital flows in 1971-73;
- A system of floating exchange rates and capital flows driven by market forces dictate the balance of payment adjustment process via macroeconomic policies;
- Liquidity arrangements as determined by international agreement under the Bretton Woods system has shifted to liquidity from private markets with the emergence of liquidity shortages in the 1950s and 1960s.

The current international monetary system is characterized by the absence of formal agreements or rules to regulate international trade and monetary relations in what is essentially a dollar exchange standard (Duncan, 2003) as the US Dollar has dominated the international currency system along with the Euro and the Yen. While the Group of 7 makes major decisions on exchange regimes and monetary rules, the Third World is left out of the policy decision making process of the international monetary system, bearing inevitably the brunt of monetary adjustments.

The Asian financial crisis in 1997 has led to new thinking in East Asia of the need for a new currency bloc to represent the economic interests of the East Asian community in future international monetary reform. With hindsight of the success of the European Monetary Union and the use of Euro as a single currency for EU, Japan's proposal of an Asian Monetary Fund shortly after the Asian financial crisis is given a new lease of life as financial and monetary cooperation assumes a new dimension under the new Chiang Mai Initiative (CMI) of an expanded ASEAN Swap arrangements for ASEAN+3.

This paper reviews the major economic justifications for monetary integration, and highlights the problems underlying the choice of an appropriate form of common exchange rate arrangements in relation to the diverse economic policy options that hamper the type of monetary integration achieved by the European Monetary Union. The prospects of long term monetary integration that may be brought about by the proposed Asian Monetary Authority are assessed in the context of current efforts to foster deeper financial and monetary integration in East Asia.

## Economic Rationale for Monetary Integration in East Asia

East Asia (EA) has emerged to develop into a newest regional block as ASEAN+3 embark on the Chiang Mai Initiative to enhance liquidity support for countries experiencing balance of payment difficulties in the aftermath of the 1997 Asian financial crisis. Table 1 shows the tremendous growth potential of EA (Akhtar, 2004):

- EA's one-quarter share of world trade grew at an annual growth rate of 9.2% between 1980-2003;
- Intra-regional trade increased from 33.4% (\$86 billion) in 1980 to 49.3% (\$970billion) in 2003 ;
- Annual GDP growth averaged 7% over the same period;
- A savings rate of 28.8% compared with 20.2% and 15% for the EU and NAFTA;
- EA has more than half of the world's foreign exchange reserves;
- A population of over 2 billion compared with 453 million in EU and 420 million in NAFTA.

TABLE 1: ECONOMIC INDICATORS OF REGIONAL GROUPINGS: EAST ASIA, EUROPEAN UNION AND NAFTA

Economic Indicators *	East Asia	European Union	NAFTA
Population (million)	2,014.5	453.3	420.6
GDP (\$trillion), 2003	7.5	11.0	12.3
Average GDP growth (%), 1980-2003	7.0	5.0	6.0
Domestic savings (% of GDP)	28.8	20.2	15.0
Investment (% of GDP)	26.5	18.7	37.5
FDI Flows (\$ billion)			
Inflows	105.5	295.5	36.4
Outflows	57.7	337.0	173.4
Foreign Exchange Reserves (\$ billion)	1177.0	304.4	116.4
Current Account Balance (% of GDP)	3.2	0.3	(4.1)

\*2002 unless otherwise specified

Source: Akhtar, 2004, *Economic Integration of East Asia, Trends, Challenges and Opportunities*, ADB.

The major issue in the future development of East Asia revolves around the key question: Does East Asia qualifies as an optimum currency area (OCA)? This question is of relevance in the light of:

- global trend towards the shrinking of independent currencies with the advent of the European Monetary Union (EMU) or the creation new currency unions. Barro (2001) estimates that 60 countries out of 200 independent countries have joined new currencies unions with growing trade and financial integration;
- the failure of monetary policy in the inflation-unemployment trade-off;
- the inability of emerging economies to use their own currencies to borrow abroad in what is known as the "original sin" or incompleteness in financial markets

An OCA is defined as the optimal geographic domain of `a single currency, or of several currencies with pegged or unified exchange rates such that the single currency or pegged currencies can fluctuate only in unison against the rest of the world (Mongelli, 2002). A vast literature has emerged on the traditional criteria for East Asian currency union, based on Mundell's theory (1961) on the benefits and costs of monetary integration. The important factors include the relative share of intra-regional trade, the nature of demand and supply shocks, flexibility of markets, and the economic size of members of monetary union. Frankel (1999) identifies two OCA properties as crucial in assessing the net benefits from currency union: the degree of openness as reflected in the extent of reciprocal trade and their correlation of income. Countries sharing a high level of either openness or income correlation, preferably both properties will benefit from a single currency. Statistics on bilateral trade shows that EU members increase trade by over 60 percent.

Recent studies on OCA put forward two contrasting paradigms –specialization versus “endogeneity of OCA”. It is argued that national specialization may lead to a decline in diversification and in income correlation such that the cost from losing direct control over national monetary policy in a single currency union may become

higher. In the “endogeneity of OCA” paradigm, trade integration and income correlation will augment in the creation of a currency union.

Some of the most notable works are summarized in Table 2.

TABLE 2: EMPIRICAL STUDIES ON EAST ASIA AS AN OPTIMUM CURRENCY AREA (OCA)

Author/Year/Model	Empirical findings
Eichengreen & Bayoumi/1999/ Exchange rate variability	Supports OCA theory - small open economies - Hong Kong/Singapore benefit from pegging to other East Asian currencies
Eichengreen & Bayoumi / 1999/Structural VAR model	Aggregate demand shocks is less than half in East Asia compared to Europe. Demand and supply shocks in East Asia are smaller and more symmetric than in Europe.
Beck & Song/2002/Extend E-B model	15 East Asian countries do not share the degree of similarity in the economic structure comparable to EU, but are closer in the share of intra-regional trade, manufactures in exports and openness.
Goto /2002/Principal component analysis	Measures the degree of synchronization of real disturbances. Real disturbances of Indonesia, Korea, Malaysia, Philippines, Singapore and Thailand are much synchronized.

Source: Bergsten and Yung, 2002, Toward Creating a Regional Monetary Arrangement in East Asia, ADB.

Although empirical studies are not conclusive as to whether East Asia satisfies the criteria for a CAC, the tremendous growth in intra-regional trade in East Asia exceeding more than 50 percent of the region’s total trade in 1998 and financial integration have driven home the need to stabilise the exchange rates of East Asian currencies. East Asian experience of contagion in financial crisis and the slow progress of global reform in international financial architecture are behind some of the most powerful forces for the East Asian community to get together for some kind of regional defence arrangement against future financial crisis in the move towards the development of liquidity support as provided under the CMI. The increased accumulation of foreign reserves of East Asian countries after the 1997 financial crisis has become increasingly costly with the continual depreciation of the US Dollar (Mongelli, op. cit.). A regional arrangement may provide a better alternative to reserve accumulation for the mobilization of the vast saving resources in East Asia to provide liquidity support for countries experiencing balance of payment difficulties

### Some Issues on East Asian Exchange Rate Arrangements

East Asia has taken a significant step toward the vision of long-term monetary integration when it embarked on a program of short-term liquidity support under the CMI:

- The ASEAN swap arrangement (ASA) was agreed among the five ASEAN countries – Indonesia, Malaysia, Philippines, Thailand and Singapore in 1997. The currencies available under ASA are the US dollar, the yen and euro. ASA allows each member to draw a maximum of twice of its committed amount for a period up to six months, subject to a further extension not exceeding six months.
- ASA was extended to a network of bilateral swaps and repurchase agreements (BSA) to the thirteen ASEAN+3 countries (China, Korea and Japan) in May 2000. The short-term liquidity support was increased from the initial US\$200 million to US\$ 1 billion. BSA is a swap of US dollar with the domestic currencies of the thirteen member countries. The maximum amount of drawing under BSA is to be determined by bilateral negotiations, with an automatic disbursement of up to 10% of the maximum amount of drawing. Any drawing exceeding 10 percent is subject to IMF conditioning of macroeconomic and structural adjustments. The current amount of BSAs for the 13 member countries is estimated at US\$20 billion. This amount is too meagre to avert any future financial crisis, considering the total sum of US\$118.2 billion provided jointly by IMF, the

World Bank, ADB, and Japan to restore financial stability in Indonesia, Korea and Thailand during the 1997 Asian financial crisis (Bergsten and Park, 2002).

To transform the CMI into a region-wide defense mechanism against future financial crisis, and eventually into a single currency union for monetary integration, Bergsten and Yung (2002) has proposed:

- The creation of a network of bilateral swap arrangements (NBSA) for the provision and disbursements of swaps, monitoring and surveillance in supporting swap operations;
- Establishment of the Asian arrangement to borrow (AAB) by merging NBSA and ASA. Liquidity support in the range of 7% of GDP at the end of 2000 amounting to US\$72 billion in the event of speculative attacks against all eleven countries is estimated;
- The creation of an Asian Monetary Fund in the final stage of financial integration.

The creation of an effective institution for policy coordination, economic surveillance and management of liquidity supports is largely political, as reflected in the European experience. The choice of a common currency and a collective exchange rate regime during the transition period is governed very much by the macroeconomic and monetary framework in the region. Monetary framework, based on announced basic principles and institutional rules guiding the execution of monetary policy, can be distinguished by the degree of discretion – whether the monetary authority (Central Bank) in charge of monetary policy has the possibility of:

- Setting short-term interest rates independently from monetary conditions abroad; and
- Surprising the private sector through unanticipated inflation without repudiating the announcements, in both the short run and in the long run.

Of the nine basic monetary frameworks identified (Table 3), currency union and exchange rate peg without capital controls are among the four frameworks that provide no independent monetary policy, either in the short run or in the long run.

TABLE 3: RULE-BASED VERSUS DISCRETION-BASED MONETARY FRAMEWORKS

	Can Monetary Authorities:			
	Set short-term interest rates independently from monetary conditions abroad?		Adjust their inflation target in response to country specific shocks?	
	Short –run	Long-Run	Short –run	Long-Run
Foreign currency	N	N	N	N
Currency union	N	N	N	N
Currency board	N	N	N	N
Exchange rate peg without capital controls	N	N	N	N
Exchange rate peg with Capital controls	Y	Y	N	N
Exchange rate peg with capital controls and a short-term intermediate target	Y	N	N	N
Inflation targeting	Y	Y	N	N
Short-term intermediate target	Y	N	N	N
Discretion	Y	Y	Y	Y

*Source: Carlo Cottarelli and Curizo Giannini, Credibility Without Rules? Monetary Frameworks in the Post-Bretton Woods Era, IMF.*

Cottarelli and Giannini's (1997) study on monetary frameworks in 100 countries between 1970 and 1994 has identified the apparent trend in the shift towards discretion in the use of monetary policy instruments in the post Bretton Woods era. To enhance credibility in monetary policy, increasing diffusion of four strategies is observed:

- Delegation of monetary policy to an independent central bank;
- Increased transparency of the monetary policy process and inflation targeting;
- Greater reliance on an outsource of credibility (acceptance of IMF conditionality);
- Heavy front-loaded in anti-inflationary reputation of monetary authorities.

This trend was dominated by the gradual abandonment of exchange rates target. In the rule-based frameworks, exchange rate anchors are more popular than domestic anchors (monetary aggregates), especially in developing countries.

In East Asia, many economies have shifted from the *de facto* US dollar-pegged regime to flexible exchange rate regimes. Kawai (2004) has advocated a tri-polar currency basket system, to stabilize rates to a basket of currencies consisting of the US dollar, the yen and the euro in a trade-off between exchange rate stability for the promotion of trade, investment and economic growth and the need for flexibility for international competitiveness. The variety of 'official' exchange rate arrangements in East Asia ranges from a currency board system (Hong Kong) to independent float (the Philippines). In between are the conventional fixed pegs to the US dollar (China and post-crisis Malaysia) and managed floating (pre-crisis Korea, Indonesia and Singapore).

Growing trade and financial integration in East Asia are reflected in the rise of ASEAN intra-regional trade as a share of regional trade similar to that of the euro area (Bayoumi and Mauro, 1999). Goto and Kawai (2001) show considerable growth in East Asian trade interdependence, leading to the correlation of business cycles in East Asia, especially in demand and supply disturbances. Indonesia, Malaysia and Thailand have highly correlated demand shocks (Eichengreen and Bayoumi (1999), while correlations of supply shocks are evident in Japan and South Korea as a group, as against Indonesia, Malaysia and Thailand in another group. Such increasing interdependencies lead to rising intra-regional fluctuations in exchange rates. This raises the issue of stability in intra-regional exchange rates among the region's diverse exchange rate regimes in two aspects:

- Movements in G3 currencies affect the bilateral exchange rates among regional currencies and consequently the competitiveness of regional economies;
- East Asian exports are heavily dependent on the United States, Japan and Europe. Any movement in G3 currencies affects the competitiveness of the dollar peg countries.

To stabilize overall trade competitiveness and to insulate the countries from intra-regional exchange rate variability from currency fluctuations of major trading partners, a common-basket exchange rate peg for East Asia has been advocated by Williamson (1999), Dornbusch and Park (1999) and Murase (2000). The debate on whether a common-basket exchange rate peg would be appropriate for East Asia depends significantly on firstly the degree to which trade patterns vary between countries and secondly the similarity of exports (Gordon, 2003).

Common currency arrangements can take two forms:

1. The formation of a currency area, with countries in the region pegging their currencies to a basket of the yen, dollar and euro, using weights based on their trade shares with Japan, the United States and the European Union, or on a regional average of trade shares with these three regions (Dornbusch and Park, 1999; Williamson 1999; Murase 2000)

Some of the issues raised in the literature can be briefly summarized as follows:

- In the common basket peg, the exchange rate could be fixed to the peg or move within a specific band (say 7-10%), Williamson, 1999) or 15% (Murase, 2000);
- A regional fund could also be used to support currencies within the band (Kuroa,2000; Murase, 2000);
- Dornbusch and Park view a common basket as the end of regional currency cooperation;
- Murase (2000) sees it only as a first step and proposes a common currency arrangement in the form of an Asian Currency Unit (ACU), using perhaps the yen as the anchor, like the European Monetary Union;
- Moon, et al. (2000) and Moon and Rhee (2001) argue for a regional currency unit as an alternative to basket peg for regional liquidity support and currency arrangements;

- Williamson (1999), Dornbusch and Park (1999) and Murase (2000) argue that as an alternative to floating the exchange rate or pegging it to one major currency, East Asia could collectively peg their currencies to a basket using common trade weights.

This view is based on two observations:

- (a) Over 40% of East Asia's trade is with itself. This supports the argument that inter-regional exchange rate stability is important for regional economic stability;
- (b) Non-Japan East Asia trade is linked heavily to Japan (14%), the United States (14%) and the European Union (12%). This supports the argument that East Asian currencies should be linked to a basket of currencies: yen, dollar and euro.

In response to these proposals, Gordon (2002) has made several useful comments:

- It is not clear that using trade weight in a peg are preferable to using exchange rate elasticities of imports and exports;
- Is establishing trade balance the best choice for policy planners instead of output stabilization?
- A common peg assumes that reducing intra-regional exchange rate variability between East Asia is more important than reducing exchange rate variability between East Asia and its major trading export markets of Japan, the United States and the European Union.
- A country targeting a basket of currencies may be better off using its own rather than common trade weights
- In the absence of strong credibility and economic convergence or strong commitment among participating members to observe strictly the rules of the games, a pegged exchange rate system is liable to speculative attacks under free capital mobility;

To be viable, a common-basket has to be robust to shocks and speculative attacks. The ultimate impact of a common-basket peg for East Asia is unclear unless it can be shown to be superior to the current regime--floating exchange rates which many East Asian economies have shifted to when they abandoned the implicit dollar pegs during the Asian financial crisis. The adoption of common currency arrangements, in the writer's view, may move economies closer together. The robustness of a regional exchange rate system depends on the similarity of economic structures, macroeconomic policies, internal and external shocks, which are empirically demonstrated in many studies to be heterogeneous. It also depends on political commitment which is currently lacking.

2. Adopting a common currency for the region. This option, as reflected in the European experience of monetary unification, eliminates the risks inherent in pegged exchange rates. As pointed out by Adams and Semblat (2004), it is superior to pegged exchange rates for various reasons:

- A single currency removes impediments to intra-regional trade and investment;
- It avoids the risks of speculative attacks under currency pegs with high capital mobility;
- It lowers transaction costs thus boosting economic integration of the region;
- It raises potential output of regional economies from increased competition, reduced transaction costs in market integration;
- A single currency increases efficiency in resource allocation, capital mobility and savings reallocation.

The emergence of currency union is the outcome of what is known as the 'hollowing out' of the intermediate regimes after two decades of pegged but adjustable exchange rate regimes (Williamson, 1996) in the aftermath of the 1992-93 European monetary system and the Asian financial crisis in 1997. Free flows of capital force many small economies to opt either for free floating or fixed exchange rate regimes in the form of a currency board arrangement or dollarisation, or the formation of currency union.

Coere' (2004) has pointed out that currency unions are not necessarily monetary unions as countries might fix their currencies without transferring monetary policy to a supranational institution like the European Central Bank (ECB). Alternatively, we may have an asymmetric currency union if the participating countries fix their exchange rate to an anchor country, leaving it to decide on a common monetary policy as in dollarisation. According to Coere', several important issues on Asian monetary union are of relevance:

- Asian economies satisfy the McKinnon OCA criterion in being much more open than European economies on average;
- Asia is much larger than Europe as it spans across 900 km between Jakarta and Singapore to 5,768 km between Jakarta and Tokyo. Comparable geographical spread between the capitals of EU countries is between 190 km between Luxembourg and Brussels to 3,362 km between Helsinki and Lisbon. As longer distances are obstacles to trade, Asia may be more integrated than Europe.
- Asian economies are more diverse than Europe, thereby providing greater scope for asymmetric shocks;
- Most studies based on the Bayoumi-Eichengreen methodology view Asia not as good an OCA as Europe.
- No single country in Asia can become an anchor rivaling that of Germany in Europe, as shown in the trade relationship (Table 4).

TABLE 4: EMERGING ECONOMIES'S TRADE WITH DEVELOPED ECONOMIES  
(UNWEIGHTED AVERAGE, AS PER CENT OF GDP)

Region	With USA	With euro area	With Japan
Africa	3.3	14.2	1.4
Asia	3.7	4.3	5.5
Europe	0.8	7.0	0.3
Middle East	4.2	11.6	6.1
Western hemisphere	12.9	8.3	2.0

Source: Alesina et al. (2002) in Benoit Coeure', "The Narrow Road to the Single Asian Currency: Lessons from Optimal Currency Areas and the Euro", in *Exchange Rate Regimes in East Asia*, Gordon de Brouwer and Masahiro Kawai (eds.), 2004, Routledge Curzon, London and New York, pp.335-359.

## The Role of an Asian Monetary Authority

East Asia is seeking exchange rate coordination and monetary integration to stabilize the exchange rates of regional currencies after the 1997 Asian financial crisis (ADB, 2002).

- Most countries in East Asia have abandoned the fixed or dollar-pegged exchange rates in favor of floating exchange rates regime. The fear of floating has driven them to look for the optimal exchange rate;
- Limiting excessive movements of exchange rates will reduce the scope of contagion;
- Monetary union in East Asia may be a better alternative to competitive devaluation of regional currencies;
- Exchange rate stability arising from common currency in a monetary union reduces exchange risks, facilitating exports and foreign borrowings.

Is East Asia ready for regional monetary integration? What institutional support is needed to bring together diverse economic, political structures into a cohesive, economically integrated and political harmonious region like the European Union? Should East Asia implement monetary integration ahead of trade integration, reversing the sequence between trade and monetary integration as was done in Europe?

At the peak of the Asian financial crisis, Japan proposed an Asian Monetary Fund (AMF) to assist the afflicted Asian economies. The idea was opposed by the United States, EU and IMF, despite the support it received from Asian countries including Malaysia and South Korea. Japan did not consult China at that time, according to Japan's former vice-finance minister Eisuka Sakakibara, in the first East Asian Congress in Kuala Lumpur in August 2003. With China's recent strong support and the softened stand of the US and IMF to regional financial arrangements, and the growing regional cooperation in trade, finance and investment, the revival of the proposed AMF has provided a new vision to East Asian monetary integration.

In assessing the roles of an Asian Monetary Authority to implement AMF, it is useful to understand the economics of monetary institutions (Bernhard, 2003) in relation to several crucial issues:

1. The benefits and costs from the perspectives of a benevolent social planner;
2. The inconsistency of monetary policy;
3. The delegation of monetary policy to an independent central bank or a conservative foreign central bank via pegged exchange rates to enhance credibility; and
4. The trade-offs between credibility and flexibility.
5. For trade-oriented nations, fixed exchange rate regime reduces exchange rate variability and transaction costs, the major advantage in favor of OCA approach to exchange rate regime choice;
6. Currency pegging implies the loss of domestic monetary flexibility;

Major roles that may be perceived for the establishment of an Asian Monetary Authority:

1. As a lender of last resort – an immediate objective of providing liquidity support on a larger scale than the current ASA and BSA under CMI. Ultimately it will assume the leading position of an independent East Asian Central Bank (EACB), much like the European Central Bank (ECB).
2. Facilitating reserve pooling as part of monetary integration in East Asia so that the regional economies can derive the benefits of scale economies. East Asia is estimated to own the world's largest holdings of foreign reserves, about 38% of the global international reserves (minus gold) amounting to US\$2,223 billion in May 2002 (Rajan, Siregar and Bird, 2003)

The Asian financial crisis has brought the realization of the underdevelopment of Asia's capital markets which in a way contributed to the severity of the crisis as the corporate sector was trapped in the currency and maturity mismatch. Asian savings were channeled to global financial centers in the United States and Europe and relent back to Asian investors. The development of an Asian Bond Fund at US\$1 billion by the 11 central banks in East Asia and Pacific countries - Australia, China, Hong Kong, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore and Thailand on 2 June 2003 is designed to develop the Asian bond market to facilitate long-term and sustainable private sector development. The current bond markets in Asia face the constraints of small market size, low liquidity, and other regulatory problems on settlement standards and international acceptability. Global bond markets are predominantly US dollar-denominated or foreign currency rather than local currency bonds.

An Asian Monetary Authority will have an important role in the development of East Asian bond markets, to avoid the problems of reliance on foreign-currency bonds and the associated currency mismatch and downward spiral of self-fulfilling crisis (Krugman, 1999, Schneider and Tornell, 2001). Burger and Warnock' study (2004), on the development and foreign participation in 49 local bond markets shows that local bond markets are better developed in countries with stable inflation rates and strong credit rights, relying less on foreign-currency denominated bonds. Of the global bond market estimated at \$31.1 trillion in 2001, emerging market issuance made up only 7% of the global bond market, the bulk of outstanding bonds were issued by developed countries (93%), in particular the United States (46%), Euro area (22%), and Japan (16%), (Table 5).

TABLE 5: GLOBAL BOND MARKET PORTFOLIO

	Total Bonds Outstanding		Local Currency Bonds Outstanding	
	\$billion	% in world Bond portfolio	\$billion	% in world Bond portfolio
Developed Countries	28,973	93.1	27,047	86.9
Euro area	6,840	22.0	6,055	19.5
Other Europe	2,049	6.6	1,548	5.0
Other developed	20,048	64.5	19,444	62.5
Australia	206	0.7	114	0.4
Canada	639	2.1	451	1.4
Japan	4,825	15.5	4,760	15.3
U.S.	18	0.1	12	0.0
New Zealand	14,396	46.2	14,107	45.3
Emerging Markets	2,156	6.9	1,676	5.4
Latin America	544	1.7	262	0.8
Emerging Asia	1,198	3.8	1,087	3.5
World	31,129	100	28,723	92

Source: Adapted from John D. Burger and Francis E. Warnock (2004), "Foreign Participation in Local- Currency Bond Markets", International Finance Discussion Paper No. 794, February, Board of Governors of the Federal Reserve System.

3. As an institution facilitating monetary integration in East Asia, enhancing macroeconomic stability against adverse balance of payment difficulties and future currency attacks-- an intermediate role; and
4. Leading East Asia to the final long-run monetary union using a single currency, and assuming the position of a new currency grouping with the dollar, yen and euro.

Although it is neither feasible nor desirable to duplicate the model of Economic and Monetary Union (EMU), much can be learned from the EU experience. Eichengreen in his presentation to the Asian Development Bank High-Level Conference on Asia's Economic Cooperation and Integration in Manila, 2004, has pointed out some of the key differences:

- A single currency for Asia requires an institutional framework to provide the legal basis for decision making much like the Treaty that established the European Community for the establishment of the European Central Bank (ECB) and the European System of Central Banks (ESCB) effective from 1 June 1998.
- The two decision-making bodies of the ECB for the implementation of a single monetary policy are the Governing Council of the ECB and the Executive Board of the ECB. Six members of the Executive Board and the governors of the euro area National Central Banks (NCBs) make up the Governing Council for the formulation of the monetary policy of the euro area and the provision of guidelines for the performance of the Eurosystem.
- ESCB is responsible for maintaining price stability - the primary objective of the single monetary policy. Price stability is defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%.
- Of significance is the Stability and Growth Pact as a means of safeguarding sound government finances for price stability and strong sustained growth , keeping government deficit below the reference value of 3% of GDP.
- Unlike Europe, Asia does not have political counterpart to a regional central bank, nor an equivalent of European Parliament.
- Asia is more politically fragmented than to-day's Europe (Wall Street Journal, 8 June), with skepticism toward Japan, and an economically fast catching up China. The decision making rules and the type of country representation if a regional central bank is created, and the delegation of policy making may appear to become some of the major issues to be resolved.

According to Eichengreen, three prerequisites for monetary union should be noted:

1. A degree of political solidarity for the delegation of monetary policy to an international institution for strict adherence to representativeness, accountability, and policy effectiveness.
2. A commitment to transparency and openness for the efficient formulation and conduct of policy;
3. Measures to strengthen, develop and harmonize the structure of financial systems.

Although the Euro area has pursued trade integration first, Shin and Wang (2003) argued that from a theoretical point of view, there is no clear reason for introducing trade integration ahead of monetary integration. First, monetary integration can increase intra-regional trade. Rose's study (2000) shows that bilateral trade in a currency union increase significantly than similar pair of countries using their own currencies by as much as 100%. Second, the introduction of monetary union can accelerate financial integration in East Asia under free capital mobility. However, on account of the close link of East Asia's capital markets to the global financial centers in U.S. and U.K., large benefits may not result from financial integration via monetary integration (Lee, Park and Shin, 2002).

Wyplosz (2002) has also pointed out that Europe's sequencing –from trade agreement to the exchange rate system and to monetary union- is not necessarily the only possible way. East Asia could proceed first with a collective exchange rate arrangement or even a monetary union, provided that the importance of building institutions along the way is duly recognized.

## Concluding Remarks

The preconditions for monetary union in Asia, from the EU experience, have to be both political and economic, as pointed out by Eichengreen. Asia may be as close as Europe in the late 1980s and early 1990s to satisfy the classic optimum currency area criteria (Goto and Hamada, 1994), but Asia is slow in political integration. The CMI is a momentous step to bring the ASEAN+3 closer in economic and political integration.

The next logical step is to establish the Asian Monetary Authority to chart the next course of monetary integration. Significant convergence of the diverse economic structure in East Asia, the strengthening of banking and capital markets for financial integration, the development of East Asian bond market initiatives, and the adoption of a workable common basket currency peg prior to the full establishment of a single currency, and the enhancement of liquidity support to avert future financial crisis are some of the major issues that need to be addressed. ASEAN+3 countries must spearhead the setting up of an Asian Monetary Authority to implement the various stages of monetary integration that EMU has achieved.

The achievement of Economic and Monetary Union in the European Union has travelled through 3 stages (ECB, 001):

- The dismantling of all internal barriers on the free movement of capital within the European Union, between July 1990 and 31 December 1993;
- The establishment of the European Monetary Institute (EMI) beginning 1 January 1994;
- The transfer of monetary competence to the European Central Bank (ECB) and the introduction of euro on 1 January 1999.

If a single currency union in East Asia is to be achieved in the next two to three decades, a timeframe should begin for the establishment of an Asian Monetary Authority.

It is important to know that real exchange rates are unlikely to remain stable within a monetary union (Wyplosz, 2002). Short run variability for asymmetric shocks and long-run variability for different stages and speeds of development require wage and price adjustments. Flexibility in goods and labor markets is required to permit adjustment while large variability of price changes is needed where large disparity exists among union members to achieve real convergence. Asia may not benefit from Europe's approach in the choice of a union-wide inflation objective to achieve nominal rather than the emerging issue of real convergence, given the diverse economic structure, the regional disparity in income levels and the political reality that each country must devise its monetary and fiscal policies and strategies to overcome domestic economic problems and global uncertainties.

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SECTION 8  
TRADE IN SERVICE INDUSTRY

2005

# A Simulation Study on the Entrance of Banks into the Insurance Industries in China

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## Abstract

We use hypothetical mergers between banks and insurance companies to analyze the potential risks and returns of bancassurance in China. The mergers using the industry data show that the insurance business would have increased the returns of banks, and decreased the bank risks as a whole. Furthermore, appropriate portion of insurance business is indispensable to achieve the optimal integration. The results using company's accounting data also show that the business of insurance, especially the property insurance, would have decreased the probability of bankruptcy of banks.

## Preface

With the severe competition of the international finance and the deepening financial integration, the trend of cooperative agreement and interpenetration among the bank, insurance, securities and fund becomes obvious day by day. The financial industries in most countries have transformed from the separated operation to the mixed operation, especially the consolidation between the banking and insurance industries. In western countries, the so-called bancassurance has become more and more prevail.

The premium income obtained through the bancassurance has played an important part in the European life insurance market.<sup>1</sup> In America, for instance, the consolidation between Citicorp and Travelers Group in 1998 had paved the road for the bancassurance business. While in Asia, the insurance policy sold among banking networks have become prevailed, in 1995, the total premium income of Asian countries except Japan have reached \$119 billion, among which the proportion of insurance policy sold by banks directly and indirectly is from 25% to 35%. Therefore, it is obvious that the development of bancassurance will become a global phenomenon.

In China, the development of bancassurance has experienced several phases. Before 1999, the cooperation between banks and insurance only includes the simple relevant businesses such as agreement deposit business, house mortgage loan insurance, export remit insurance business, etc. After 1999, more cooperation has appeared between the banks and the insurance companies. It covers the business that bank acts as an agent for intermediary's business of the insurance, life insurance company can use the bank service network, and specially introduces the insurance products sold through the bank counters. In 2002, the bancassurance industry had a tremendous progress, the scale of the banking agent business of the life insurance is up to 388.4 million yuan, accounts for 17.1% of the personal premium income, and the annual growth rate of bancassurance reached a record high of 600%. On January 1st 2003, the insurance law was emended, it abolished the policy restriction which allows only one bank to deputize for one insurance company; the new policy allows for a multiply model, which means banks can service for several clients without limitation. Furthermore, three new banking laws enacted in late 2003 have obligated the mixed operation in the policy level. In this way, the bancassurance will have a bright future.

Before the determination whether allows the bank to enter the insurance industries, the supervisor should have a comprehensive understanding of the expansion consequence, especially the impact on risk of the banking system. The investment portfolio theory is the most powerful academic weapon of those advocators. According to the investment portfolio theory, as long as the revenue of the bank and insurance is incomplete association, the consolidation can obtain a diversification benefits, thus reduce the risk of the bank directly. In the other way, the bank can also reduce the probability of bankruptcy by the multiple operation of insurance business. By contrast, the protesters consider more about the moral hazard, and they thought that the bank will prefer high risk business in order to seek high return on investment. It will offset the effect of diversification of risk, and damage the bank's own interests and interests of investors with incomplete information. What's more, the protesters insist on that the close dependence between the financial systems will make the risk contagion possible, and lead to the systemic risk.

At present, there are so many documents analyzing the risk of the bancassurance, but no unanimous conclusion exists, it is mainly because the data used are different, the research approaches and the measures of risk and profitability differ from each other. Moreover, the data in these documents are with regard to the situation of Europe and America, it may not be suitable to the Chinese situation.

Therefore, in this paper, on the basis of our own banking and insurance statistics, we use hypothetical mergers between banks and insurance companies, and evaluate the risks and returns of bancassurance in order to provide reference for further discussing the financial integration in China.

The paper proceeds as follows. Section 2 discusses the literature. Section 3 presents methodology: the risk and return measures employed, the sample, and the simulation procedure. Section 4 presents the demonstration analysis. Section 5 concludes and suggests.

## **Review of the Literature**

At present, the research about the potential risks and returns of bancassurance varies from each other. There are mainly three kinds of methods on the whole. The first method is to directly observe the effect of bancassurance, it mainly directly analyze the difference of risks and returns between the universal banks and the specialized banks in Europe and other countries or assess the effect of the nonbanking business on the bank holding companies in American. By contrast, the others two methods based on empirical analysis: the second one is measuring the risks and returns by analyzing the relativity of returns among the financial industries. The academic basis is the asset portfolio theory; and the third one is using the method of hypothetical merger to simulate consolidation between the banks and insurance companies, and then analyze the effect of the integration on the risks and returns.

As to the first method, the most influential literatures nowadays are two books written by Saunder and Walter (1994,1996), and other articles written by Sul (1998), Kwast(1989), Apilado, Gallo & Lockwood(1993), Vennet (2002) and so on<sup>ii</sup>. However, either their keystone of researches are different from these papers, or fail to adopt the precise quantitative methods, furthermore, as we are characteristic of separated operation system, and have great differences with other countries' financial system, so the experience from other countries may not be suitable to our country.

As far as the second method is concerned, it usually observes the characteristics of the risks and returns of banks and insurance companies and the relevant degree between each other, so as to preliminarily estimate the potential risk and diversification benefits of the bancassurance, then it will compose investment portfolios with different proportions among the banks and life insurance companies or property insurance companies, and calculate the risks and returns of these portfolios, finally estimate the impact of the bancassurance. In addition, it can also divide the insurance business into property insurance & life insurance business. Then according to analyzing the efficient portfolios among the banks, life insurance and property insurance businesses, it can further analyze the impact of these insurance business on risks and returns of the banks. The most influential literatures are Stover (1982), Rose (1989), Litan (1985), Saunder & Smirlock (1987), Wall, Reichert, and Mohanty (1993), Brewer, Fortier, and Pavel (1988) and so on.

However, no unanimous conclusion exists, it is mainly because the data (market data or accounting data) used are different, and the measures of risk and profitability (such as standard deviation, Coefficient of variation, Probability of Bankruptcy, Return on equity, The profit rate per unit risk and so on) differ from each other too.

In the portfolio approach, it assumes the existence of homogeneous industries with return distributions, which are time-stationary and joint-normal. But the market data and the accounting data may not satisfy these assumptions, so the asset portfolio approach may bring some deviation of the study. So the portfolio approach is not suitable to study the potential risk and profitability of banks entrance into the insurance industries in china.

In this case, it is required to seek new method. Boyd and Graham (1988) initiate the third method, which is hypothetical merger. In this way, banks and insurance companies are taken out at random and hypothetically merged, then we can account the returns and risks of the consolidated firms. After numerous random hypothetical mergers, we can use the medians or the mean values to analyze the impact of financial integration on the returns and risks.

Boyd et al. use accounting data and market data during 1974-1984 to simulate the mergers among the bank holding companies and other financial enterprises. The result shows that both the fluctuation of return and the probability of bankruptcy will be reduced when the bank is integrated with the life insurance company, but when the bank is consolidated with the brokerage or agent companies, the result will be different. As to the accounting data, the risk and return will all increase a lot, but in the case of market data, the predicted risk and return will be reduced.

The shortcoming of the above-mentioned simulation method lie in being unable to analyze the consolidation between the bank and insurance company with different proportions, nor can it be able to figure out the investment portfolios with minimum risks. Boyd, Graham and Hewitt (1993) design another factor to blow up or shrink the nonbanking financial companies. Their findings about the mergers between bank and life insurance company are the same with the result of Boyd et al., but the assessment on entering insurance marketing business have some differences, and the conclusion of entering property insurance industry is totally opposite to the previous result.

Allen and Jagtiani (2000) also simulate the mergers among the bank holding companies and other financial enterprises. The results show that the merger among bank holding companies, security and insurance firms will devote to reduce the bankruptcy risk. However, if banks only merger with security firms, the diversification benefit can not be achieved.

Santomero (1993) makes use of quarterly data and figures out the implied asset return volatility on the basis of option pricing theory, and then he gets out the probability of bankruptcy. He finds that after the hypothetical merger, although the implying risk of the bank rises, the profitability of bankruptcy has been reduced remarkably.

## **Methodology**

From the above analysis, it is known that different research data and risk measurement method may lead to different conclusions. Therefore, in order to completely reflect the risks and returns of bancassurance in china, this paper plans to adopt four indexes of return on equity, standard deviation, coefficient of variation and bankruptcy probability to measure the risk and profitability; in addition, it will use the latest industrial data, fiscal year data and accounting quarterly data to make an all-round comparing and analyzing.

### **The Data**

In this paper, we mainly use the annual data, quarterly data and industrial data because the samples must be existent and having open account data during the time period. For the annual data, the time period lasts for 17 years, from 1987 to 2003, while the time period of the quarterly data lasts for 5 years, from January 1999 to December 2003. As to the industrial data, we use annual data, from 1996 to 2003; the calculation method is to sum up the samples so as to get the industrial data.<sup>iii</sup> The data mainly come from the Periodical of Almanac of China Finance, Almanac of China Insurance, website of the companies, CBRC (China Banking Regulatory Commission), CIRC (China Insurance Regulatory Commission) and the Panorama. The time period is from 1985 to 2004.

Hereby, the banks considered are as follow: Bank of China, Industrial and Commercial Bank of China, Chinese Construction Bank, Agricultural Bank of China, Bank of Communications, Shenzhen, China Merchants Bank, Shanghai Pudong Development Bank, China Minsheng Banking Limited company, Hua'xia Bank, Guangdong Development Bank, Fujian Industrial Bank, CITIC Industrial Bank, China Ever bright bank, Ever-growing bank; All-risks Insurance companies include People's Insurance Company of China, China Pacific Insurance (group) Co. Ltd, China Ping An insurance(group) Co. Ltd, Tian'an insurance Limited Company of China, Da Zhong insurance Limited Company; the life Insurance companies include Chinese life insurance company, Xinhua life insurance Limited Company, Taikang life insurance Limited Company; Property insurance Companies include Huatai property insurance Limited Company, Sinosafe general property insurance Limited Company, Yong An property insurance Limited Company, China united property insurance company.

### **The Models**

The methods employed in this paper are all referenced to the Measurement methods in the above literatures, especially the evaluation method of the probability of bankruptcy citing from the study of Boyd, Graham, and Hewitt.

### Measures of Profitability

We use average return on equity to measure profitability. The average return on equity of every company is calculated by the following formula:

$$\bar{R} = \left\{ \sum_{j=2}^n [2\pi_j / (E_j + E_{j-1})] \right\} / (n-1) \quad (1)$$

In the above formula,  $\Pi$  is the net profit after taxes; E is the stockholder's equity

### Measures of Risk

In this paper, we mainly adopt three methods to evaluate the risk:

The first method is standard deviation; it represents the variability of the return.<sup>iv</sup>

$$S = \left\{ \sum_{j=2}^n (R_j - \bar{R})^2 / (n-2) \right\}^{1/2} \quad (2)$$

$$R_j = 2\pi_j / (E_j + E_{j-1}) \quad (3)$$

The second method is Reciprocal of the coefficient of variation; it represents the profit rate per unit risk.

$$ICOV = \bar{R} / S \quad (4)$$

High value of *ICOV* represents high profit performance. On the contrary, it also stands for a low level of risk per unit of return, so it can be used as an indirect measuring index of risk.

The third index is the probability of bankruptcy; it is used to measure the probability when the debt is greater than the stockholder's equity.<sup>v</sup>

Suppose A is the total assets, E is the stockholder's equity, and  $\pi$  is net profit after taxes. When the stockholder's equity is not enough to pay off the debt of the firm, that is to say  $\pi < -E$ , this company goes bankrupt. Suppose  $r = \pi/A$ ,  $k = -E/A$ , then the probability of bankruptcy of the bank can be expressed as follow:

$$P(\pi < -E) = P(r < k) = \int_{-\infty}^k \phi(r) dr \quad (5)$$

In the above formula,  $P(\ )$  represents the probability,  $\phi(r)$  is the Function of density of probability of r. Suppose that the variable r presents normal distribution, then  $P(r < k) = N(z)$ ,  $N(z)$  stands for an accumulative probability distribution function with standardized normal distribution.

So we can deduce the following formula:

$$z = \frac{k - \rho}{\sigma} \quad (6)$$

Among which  $\rho$  is the true mean value of r distribution, while  $\sigma$  is the true standard deviation of r distribution. Since  $k$  is smaller than zero, so  $z$  is usually negative. For convenience, we use  $Z$  to represent  $-z$ . If the yield rate is lower than the average yield rate by  $Z$  unit of standard deviation, the stockholder's equity of the firm is not sufficient to cover the deficit, so the firm will be bankrupt. Therefore, the higher value of  $Z$  it is, the lower bankruptcy probability will be. Even if the variable  $r$  is not normal distributing, as long as  $\rho$  and  $\sigma$  exists,  $Z$  can also represents the upper limit of the probability of bankruptcy, because we can establish the estimated value of  $Z$  with

the estimated sample value of the  $\rho$  and  $\sigma$  according to the Bienayme-Tchebycheff Inequality:

$$P(r \leq k) \leq \{\delta / (\rho - k)\}^2 = 1/Z^2 \quad (7)$$

As to the formula below, when calculated by the accounting data,  $\pi$  is net profit after taxes,  $A$  is total assets,  $n$  is the total time periods,  $E$  is the stockholder's equity,  $j$  is the time period, and  $S_r$  is the estimated standard deviation of  $r$ .

$$Z = \left\{ \sum_{j=2}^n [2\pi_j / (A_j + A_{j-1})] / (n-1) + \sum_{j=2}^n [(E_j + E_{j-1}) / (A_j + A_{j-1})] / (n-1) \right\} / S_r \quad (8)$$

### Merger Simulations

This study employs the method of Boyd et al. to compose simulating mergers between the commercial banks and insurance companies in china, because their method avoids the unsuitable hypothesis of the portfolio diversification method, and permits the simulated firm having various nonbank businesses with different proportion at the very beginning. We use the factor  $s$  to blow up or shrink the insurance company, in equation (9),  $N$  is an initial portfolio weight for a particular simulation, and  $A_b$  stands for the total assets of a bank before the mergers, while  $A_n$

$$s = \frac{N}{1-N} \frac{A_b}{A_n}, \quad 0 \leq N < 1 \quad (9)$$

is the total assets of nonbanking firms before the mergers.

In this paper, we will employ the following three methods to compose the simulations: a. bank mergers with all-risks insurance firms; b. bank mergers with property insurance firms; c. bank mergers with life insurance firms. The simulation proceeds as follows: we firstly multiply the net profit after taxes ( $\pi$ ), stockholder's equity ( $E$ ), total assets ( $A$ ) of all-risks insurance, life insurance and property insurance by  $s$ , then sum up with those of the bank, and we can get the net profit after taxes, stockholder's equity and total assets of the simulated firms (bank vs. all-risks insurance; bank vs. property insurance and bank vs. life insurance). After that, we can calculate the  $\bar{R}$ ,  $S$ ,  $ICOV$  and  $Z$  of the above simulated firms.

When simulating by quarterly data, there are 75 kinds of integration portfolios between bank and all-risks insurance, 60 kinds between bank and property insurance, and 45 kinds between bank and life insurance. With annual data, however, there are 12 kinds of integration portfolios between bank and all-risks insurance.

We use three figures to describe each of the simulation outcomes; the first figure describes the relationship between  $\bar{R}$  and  $S$ , and the predetermined weight  $N$  stands for the proportion of investment on the nonblank asset. The second figure describes the relationship between  $N$  and  $ICOV$ , and the third figure describes the relationship between  $N$  and  $Z$ .

## Empirical Result

### Empirical Result based on the Industrial Data

From Fig. 1-3 and Table 1, we can see that the rate of returns of the property insurance, life insurance and all-risks insurance are all higher than that of the banking industry, while the standard deviation and the probability of bankruptcy are all lower than that of the banks. Based on these statistics, it is revealed that the returns of the insurance industries are higher than that of the banking industry, but the risk is much lower. In addition, the coefficient of correlation between the banks and property insurance, life insurance and all-risks insurance firms are respectively 0.22, 0.15 and 0.56, as they are not high enough, so if the bank mergers with the property insurance, life insurance and all-risks insurance, a potential diversification benefit will be attained.

TABLE 1: COEFFICIENT OF CORRELATION RATIOS AMONG VARIOUS INDUSTRIES

	Industrial data	Accounting quarterly data	Accounting annual data
coefficient of correlation between the bank and all-risks insurance	0.56	0.61	0.92
coefficient of correlation between the bank and property insurance	0.22	-0.23	~
<i>coefficient of correlation between the bank and life insurance</i>	0.15	0.21	~

No matter how large asset proportion the life insurance is, there is a comparative potential diversification benefit, the rate of returns & the profit rate per unit risk can be promoted, the standard deviation and the probability of bankruptcy can be reduced. Moreover, the rate of returns have been increasing with the growth of the asset proportion of the life insurance all the time, the point where the asset proportion of the life insurance is 35% is a turning point of the standard deviation, before which, the standard deviation is basically in state of dropping (except one point which the weight is 30%), crossing the point, it will rise again, but they are still lower than the standard deviation of the bank. The rate of returns reach the toppest when the asset proportion of the life insurance is up to 40%, while the probability of bankruptcy is minimum when the weight is 35%. However, if the bank mergers with the property insurance, no matter what proportion of the property insurance is, they all have a comparative potential diversification benefit, the rate of returns & the profit rate per unit risk can be promoted, the standard deviation and the probability of bankruptcy can be reduced. Moreover, the rate of returns & the standard deviation have been increasing with the growth of the asset proportion of the property insurance all the time except the proportion varies from 0 to 5% (in that case, the standard deviation will reduce, but it is still lower than that of the bank). From the figure, we can also see that when the asset proportion of the property insurance is 10%, the profit rate per unit risk reaches the highest level, but the probability of bankruptcy has been decreasing with the growth of the asset proportion of the property insurance all the time (except one abnormal point where the weight is 30%)

As to all-risks insurance, the rate of returns has been increasing with the growth of the property insurance proportion all the time, while the standard deviation of all-risks insurance is smaller than that of the bank besides the weight of all-risks insurance is less than 10%, in addition, the standard deviation of the mixed operation falls when the asset proportion of all-risks insurance is smaller than 60%, but when the proportion is greater than 60%, it grows instead; only at the point of 60%, will the standard deviation be minimum. Furthermore, the entire profit rate per unit risk will increase a lot no matter how large proportion of all-risks insurance is. When the proportion is 90%, the profit rate per unit risk will reach the highest level and the probability of bankruptcy can also be reduced when the asset proportion of all-risks insurance rises.

On the whole, the result of the hypothetical merger with the industrial data quite supports the way of bancassurance in china. The conclusions in this paper are more supportive for the bancassurance than that of Stove, it is mainly because the coefficient of correlations between Chinese banking and insurance industry are much lower, and the potential diversification benefits are relatively greater than that of other countries. Moreover, as far as the life insurance and property insurance are concerned, our conclusions are also more supportive for bancassurance than that of Brewe et al. From their conclusions, it is considered that only the low asset proportion of the insurance business could reduce the risk of the bank, and increase the profit per unit risk, however, in our conclusion, no matter what proportion of the property insurance、 life insurance and all-risks insurance is, the mixed operation can reduce the risk of the bank and increase the profit per unit risk, but only at certain rate, can it get the highest profit per unit risk.

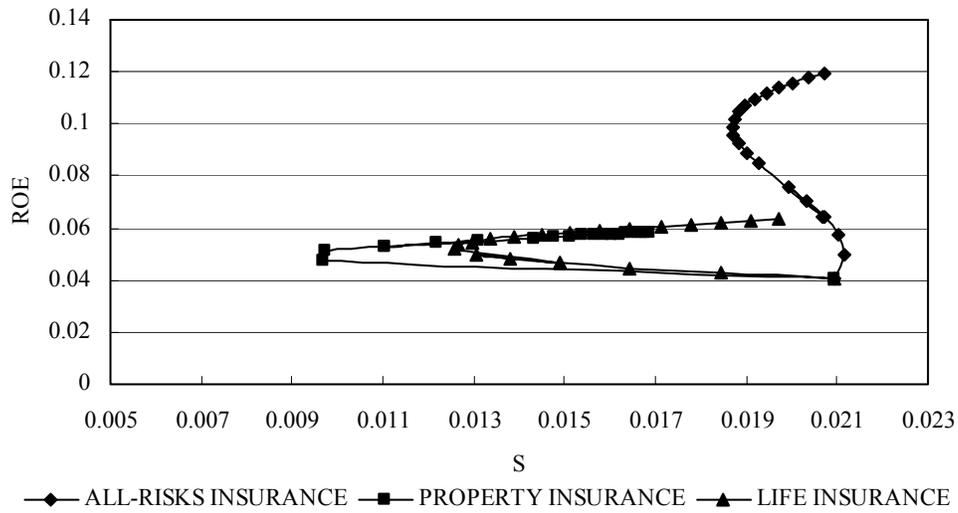


FIG.1: HYPOTHETICAL MERGERRING RESULT OF RETURNS (INDUSTRIAL DATA)

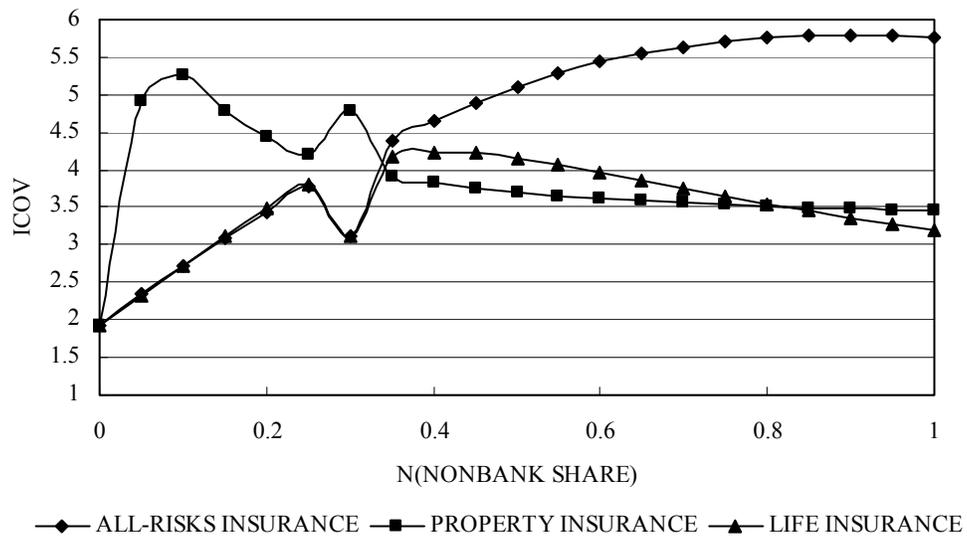


FIG.2: HYPOTHETICAL MERGERRING RESULT OF RISKS (INDUSTRIAL DATA)

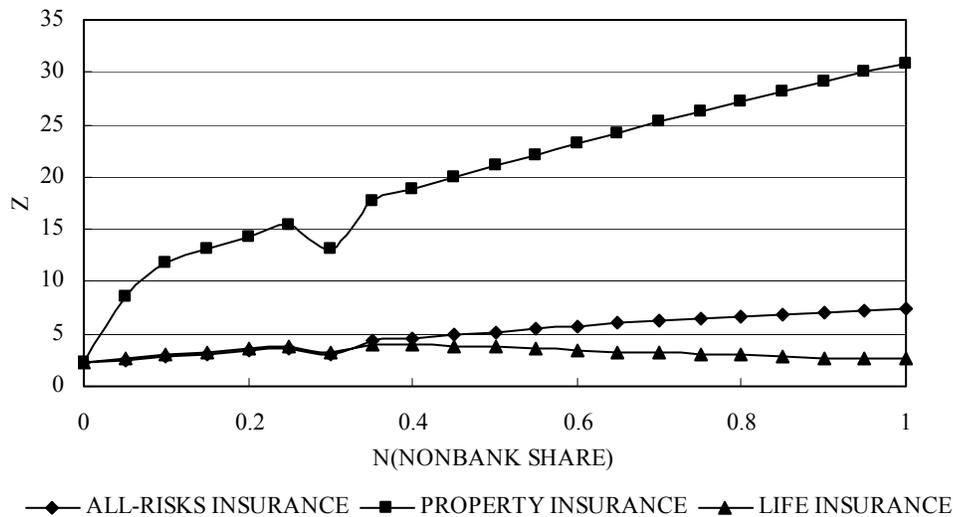


FIG.3: HYPOTHETICAL MERGERRING RESULT OF PROBABILITY

**Empirical Result based on Company's Accounting Data Quarterly Data**

According to Fig. 4-6, the rate of returns and profit rate per unit risk of the life insurance are all smaller than that of the bank, the standard deviation of the two is nearly the same, but the probability of bankruptcy of the life insurance is much lower than that of the bank. According to the data from table 1, however, as the coefficient of correlation between the bank and life insurance is just 0.21, thus the financial integration is really able to reduce the probability of bankruptcy, and the rate of returns of the simulated bank will drop with the rising of the asset proportion of the life insurance; in addition, when the proportion is lower than 40%, the standard deviation drops as the asset proportion of the life insurance rises, but when the proportion is higher than 40%, the standard deviation will rise instead, and the return per unit risk will increase while the asset proportion of the life insurance is lower than 10%. Furthermore, from Fig. 6, it is shown that the value of z grows, reflecting a reduction of bankruptcy probability. So in the case of the merger with the life insurer, the reduction of risk is at expense of the decrease of the bank's return.

As far as the property insurance is concerned, the result is not the same. The rate of returns, the standard deviation and the probability of bankruptcy of the property insurance are all lower than that of the bank, but as there are a negative relationship between them (the coefficient of correlation is -0.23), so the integration between bank and property insurance will achieve a considerable diversification effect. From the Fig. 4-6, we can see that the risk and return will all increase as the asset proportion of the property insurance is growing, in addition, as long as the proportion is no more than 30%, the profit rate per unit risk will be promoted and will reach the highest level when the proportion is 5%, in this case, the probability of bankruptcy can be reduced remarkably.

By contrast, the return of all-risks insurance is similar with that of the bank, but the standard deviation, the profit rate per unit risk and the probability of bankruptcy of all-risks insurance are much bigger than that of the bank. As their correlation coefficient is up to 0.61, so a certain diversification profit can also be attained. From the Fig. 4-6, it is shown that if the bank merges with all-risks insurance firms, the return and the standard deviation of the bank would drop first and then go up again. Therefore, no matter what asset proportion is, the consolidation between the bank and all-risks insurance will promote the unit risk premium, and when the asset proportion is 25%, the unit risk premium is the maximum and the probability of bankruptcy can be reduced obviously.

Generally speaking, the quarterly data strongly support the financial integration among the bank, property insurance and life insurance firms. As to the life insurance, although it can reduce the probability of bankruptcy and the standard deviation (when the proportion of life insurance is less than 40%), and promote the return of unit's risk (when the proportion of life insurance is less than 10%), still the integration between the bank and life insurance will lead to a reduction of the bank's return. The reason may lie in the fact that in recent years, property insurance industry has experienced a fast growing course, but the development of life insurance is not so optimistic. In addition, we should also notice that the proportion of property insurance business must be restricted at certain level so as to prevent the blind pursuit of high rate of returns regardless of risk.

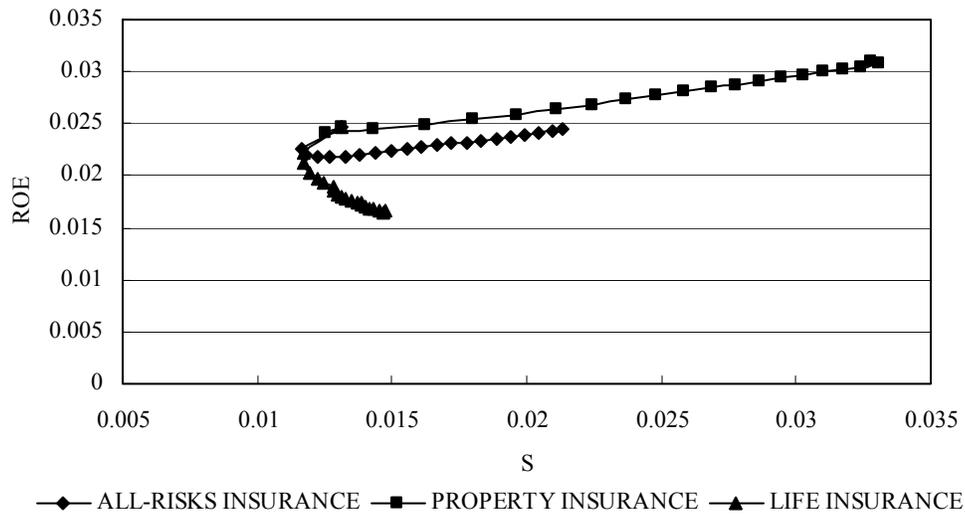


FIG.4: HYPOTHETICAL MERGERRING RESULT OF RETURNS (OUARTERLY)

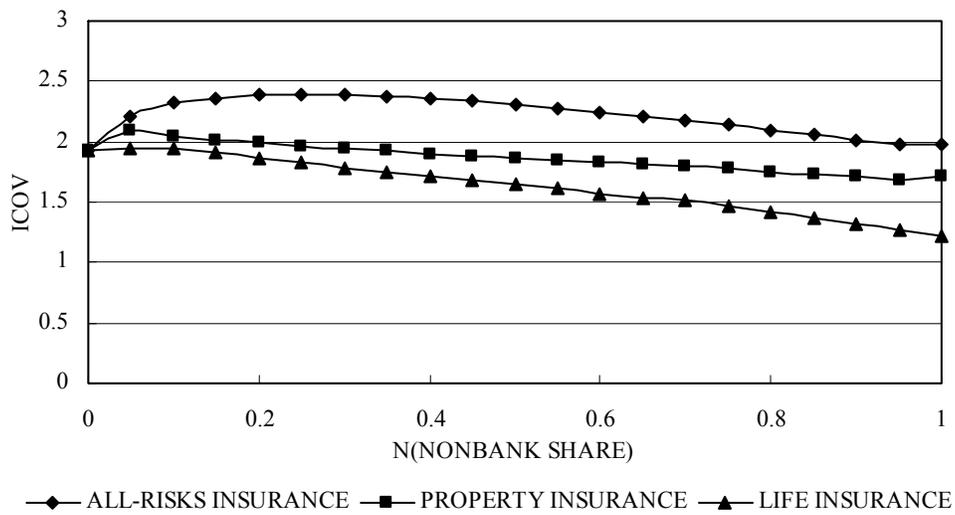


FIG.5: HYPOTHETICAL MERGERRING RESULT OF RISKS (OUARTERLY DATA)

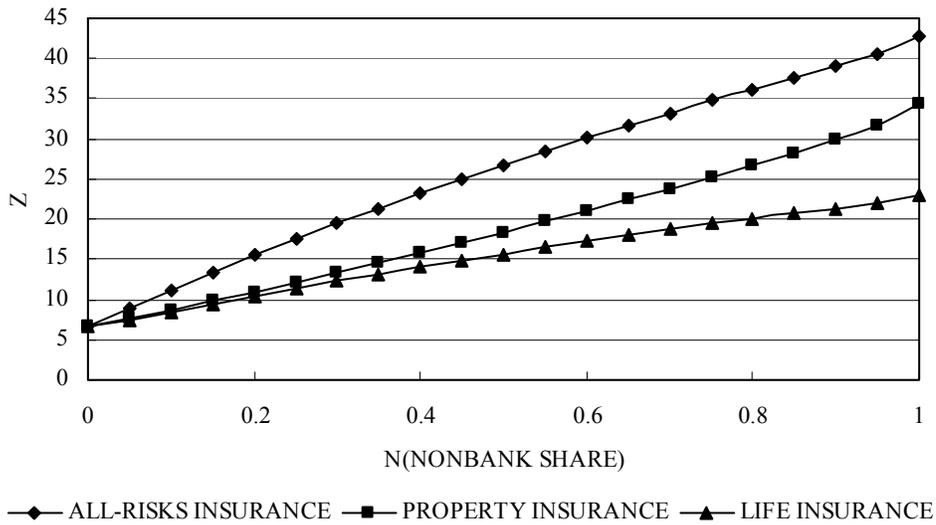


FIG.6: HYPOTHETICAL MERGERRING RESULT OF PROBABILITY OF BANKRUPTCY (QUARTERLY DATA)

**Annual Data**

As to the fiscal year data, we only analyze the risks and returns of the consolidation between the bank and all-risks insurance, it is found that the return and standard deviation of all-risks insurance firms are all bigger than that of the bank, but the profit rate per unit risk and the probability of bankruptcy are much lower than that of the bank. Form table 1, we can see that the coefficient of correlation between the bank and all-risks insurance is up to 0.92 which means the diversification benefit is limited. From the Fig. 7-9, it is shown that although the return of the company consolidated between the bank and all-risks insurance rises, the risk grows simultaneously; when the asset proportion of all-risks insurance is lower than 40%, the benefit per unit risk will increase, and when the proportion is 5%, the benefit per unit risk is the highest and the probability of bankruptcy drops obviously. The results above are similar with that of the Boyd et al.

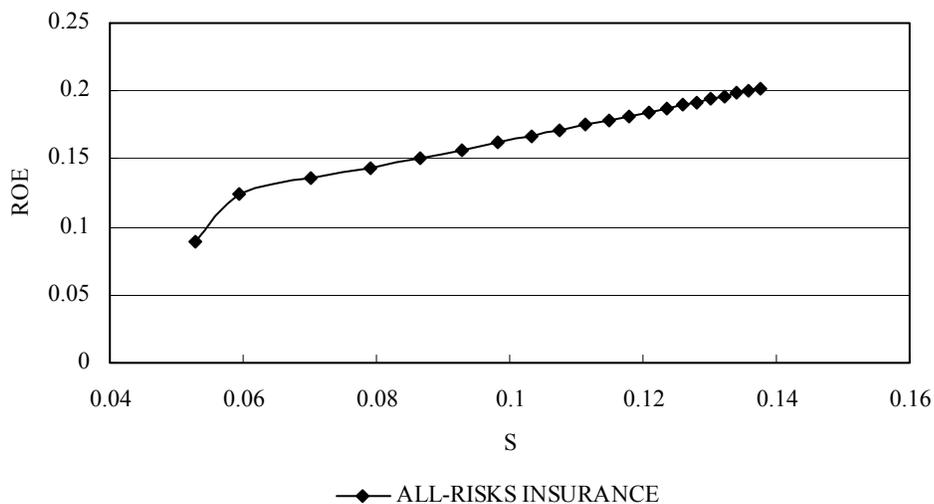


FIG.7: HYPOTHETICAL MERGERRING RESULT OF BRETURNS (ANNUAL

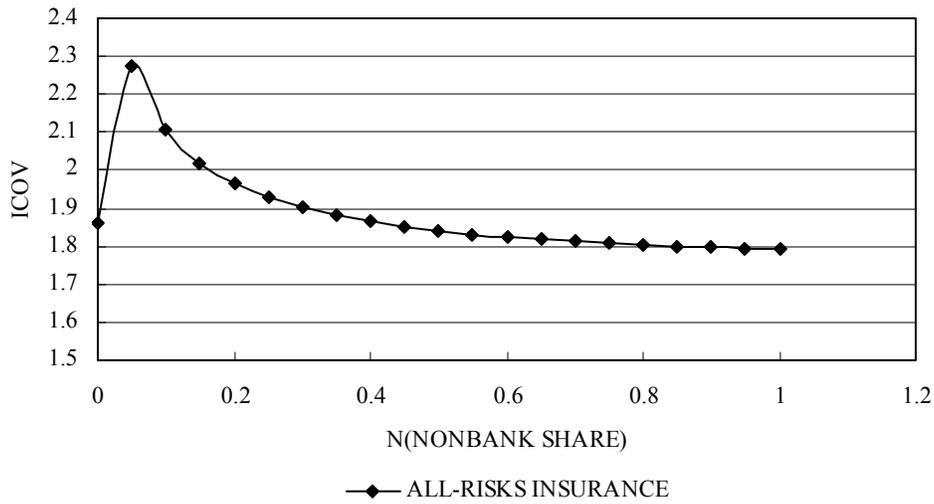


FIG.8: HYPOTHETICAL MERGERRING RESULT OF RISKS (ANNUAL DATA)

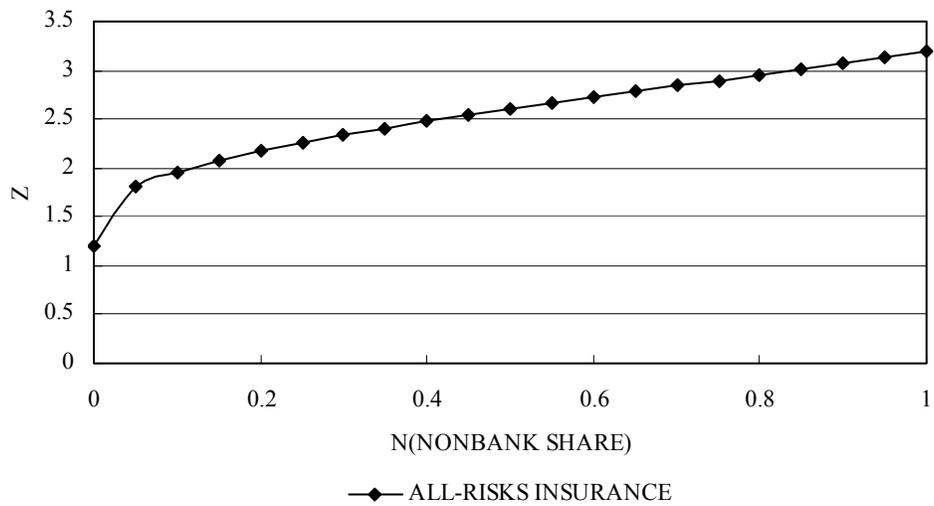


FIG.9: HYPOTHETICAL MERGERRING RESULT OF PROBABILITY OF BANKRUPTCY (ANNUAL DATA)

On the whole, the annual data supports the way of bancassurance, as long as the asset proportion of all-risks insurance is lower than 40%, the profit per unit risk will rise accordingly.

The empirical results with various data are sorted respectively in Table 2 and Table 3.

## Conclusion & Suggestion

At present, there is no unanimous view on the risk and profit of the bancassurance in western literatures. Therefore, this study will make use of the data of Chinese banking and insurance industries to empirically simulate the impact on the risk and profit of the bank if Chinese bank mergers with insurance firms, and to provide reference for the decision on the opening of bancassurance in the future.

TABLE 2: COMPARISON TABLE OF VARIOUS RESULTS OF VARIABLES

	$\bar{R}$	S	ICOV	Z
Industrial data	A>L>P>B	B>A>L>P	A>P>L>B	P>A>L>B
Accountant quarterly data	P>B>A>L	P>A>L>B	A>B>P>L	A>P>L>B
Accounting annual data	A>B	A>B	B>A	A>B

*Note.* Define B as banks, L as life insurance, P as property insurance, A as all-risks insurance

TABLE 3: COMPARISON TABLE AND EMPRICAL RESULTS

	Bank mergers with life insurance			Bank mergers with property insurance			Bank mergers with all-risks insurance		
	$\bar{R}$ and S	ICOV	Z	$\bar{R}$ and S	ICOV	Z	$\bar{R}$ and S	ICOV	Z
Industrial data	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>
Quarterly data	<i>Not support</i>	<i>Not support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>	<i>support</i>
Annual data	—	—	—	—	—	—	<i>support</i>	<i>support</i>	<i>support</i>

*Note.* Support represents that the entrance of bank into insurance has diversification benefit, not support means there is no diversification benefit.

The finding of this paper is regarded as a positive backup of the bancassurance. The industrial data strongly support the financial integration among the bank, property insurance, life insurance and all-risks insurance industry. In this case, the rate of returns can be promoted and the standard deviation can be reduced. As to the life insurance industry, when the proportion of the life insurance is 40%, the return per unit risk is the highest; and when the proportion is 35%, the probability of bankruptcy is the minimum. By contrast, when the proportion of the property insurance accounts for 10%, it will get the maximum return per unit risk, and the result will be the same when the proportion of all-risks insurance is 90% instead. In addition, the probability of bankruptcy has been decreasing all the time with the growth of the proportion of the property insurance and all-risks insurance businesses.

Contrary to the industrial data, the findings with the quarterly data are not the same. Although it supports the merger among the bank, property insurance and all-risks insurance, the life insurance is got rid of the portfolio. As to the property insurance, once the weight of the property insurance is no more than 30%, the profit rate per unit risk will increase continuously, and reach the highest level when the weight is 5%. As far as all-risks insurance is concerned, the profit rate per unit risk can be promoted by any proportion of non-banking business, and it acquires the maximum when the asset proportion of all-risks insurance is up to 25%. Therefore, although the merger with life insurance can reduce the risk of the bank when the proportion of the life insurance is less than 40%, still it is at a expense of the reduction of the returns. Nevertheless, the probability of bankruptcy has been decreasing all the time with the growth of the proportion of the life insurance, property insurance and all-risks insurance. Meanwhile, based on the quarterly data, the rate of return of life insurance is not very high, so a reasonable proportion of property insurance is necessary to achieve the optimal portfolio effect.

As to the annual data, however, it shows that the bancassurance is effective, the profit rate per unit risk will rises when the proportion of all-risks insurance is less than 40%, and when the proportion is 5%, the profit rate per

unit risk will reach the toppest and the probability of bankruptcy can also be reduced while the asset proportion of all-risks insurance rises.

Therefore, as far as the diversification benefit is concerned, it is suggested that bancassurance should be permitted. Moreover, a reasonable proportion of property insurance is necessary to the optimal portfolio effect, and the proportion of non-banking business must be restricted at certain level so as to achieve the optimality and prevent the blind pursuit of high rate of returns regardless of risk.

Although this paper has adopted the latest data as much as possible, as the financial market changes very fast, so in order to accurately evaluate the effect of bancassurance, it is absolutely necessary for us to update the data continually. Furthermore, as the annual market data of Chinese bank and insurance is so limited, we can make further study on the basis of improved market data in the future.

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### **End Notes**

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- <sup>i</sup> Among those countries with relatively developed bancassurance such as France, Spain, Portugal, the premium income obtained through the bancassurance accounts for 60% of total amount of life insurance market; while in other countries (such as Belgium, Italy, Norway, Holland, Germany and so on), the proportion varies form 20% to 35%. In the field of Property insurance, however, the bancassurance starts relatively late, the premium income accounts for only 10-20 percent of the total amount of business in the property insurance market. (the data come from website: <http://www.cnp.com.cn>.)
- <sup>ii</sup> The others are Fields & Fraser(1999), Mishkin(1999), Bhargava & Fraser(1998), Wall & Eisenbeis(1984).
- <sup>iii</sup> The time period of the industrial data sample is limited because most insurance firms established just from 1996, this may slightly affect the outcomes.
- <sup>iv</sup> The method of standard deviation is citing from Chenghsien Tsai, Wei-chien Wang(2001).
- <sup>v</sup> The probability of bankruptcy is the best index which comprehensively comprises other three indexes.

# **Analysis on the Development of Intermediate Business of Chinese Banks**

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## **Abstract**

We provide a model to explain the impact of some factors, borrower's credit level, general interest margin, general fee rate of intermediate business and agency problem on the intermediate business development of Chinese banks. The assumption is that the amount of deposit, loan and intermediate business is the function of resources allocation, and the effect of resources allocated to balance-sheet business and intermediate business are not interdependent before 2002. Since 2002, many factors have promoted the development of intermediate business of Chinese banks. Firstly, China has promised to open its banking business in all places and all currencies to foreign banks by 2006. Balance-sheet business and intermediate business become interdependent in practice. Secondly, procedures governing the charging of intermediate business has promulgated in a bid to promote its development. Thirdly, China is pushing market-oriented reform strategy that includes coordinates government, SOCBs and SOEs reform to deal with agency problem.

## **Introduction**

The so-called intermediate business in China consists of off-balance-sheet business and fee collection business. In March 2002 the Nanjing-based Ericsson-Panda Mobile Telecommunication Equipment Co. Ltd. paid off loans to its Chinese creditors ahead of schedule and then borrowed the same sum, 1.99 billion yuan, from Citibank. Because Citibank can meet the factoring demand of Ericsson-Panda, while Chinese creditors cannot. This event represents a watershed in the competition of off-balance-sheet business between domestic and foreign banks since China joined WTO. China has promised to open its banking business in all places and all currencies to foreign banks by 2006. A fierce competition can be expected.

In general, large international banks get 40%-60% of their income from intermediate business. Most of them have robust financial strength, sound governance, strong ability of financial innovation and rich experiences. Statistics show that Citibank gets over 70% of its income from intermediate business--which include securities underwriting, risk mitigation, factoring, merger & acquisition, credit guarantees, credit commitments, hedge instruments, trading instruments (interest rate swap, forward rate agreements, cross currency swaps, Option, etc.). Until recent years, general interest margin still remain the major profit source of China's big four state-owned commercial banks (SOCBs), get about 10% of their income from intermediate business.

## **The Development of Intermediate Business during 1995-2002**

In this section, we provide a model to discuss the impact of some important factors on the intermediate business development of Chinese banks during 1995-2002. These factors include borrower's credit level, general interest margin, general fee rate of intermediate business and agency problem. We suppose that the amount of deposit, loan and intermediate business is the function of resources allocation, and the effect of resources which allocated to balance-sheet business and intermediate business are not interdependent before 2002.

According to our model, during 1995-2002, the decreasing of borrower's credit level and regulated interest margin had a positive impact on resources allocation to intermediate business. While the decreasing of general fee rate of intermediate business caused by bad competition as well as agency problem had a negative impact. As a result, Chinese banks hadn't allocated enough resources to intermediate business. Statistics show that the development of intermediate business of Chinese banks is very slowly during this term, that is to say, the negative factors had more effect on it.

**Basic Assumption**

The following assumption will be used throughout this paper to make the analysis as simple as possible.

(i) Here only consider bank's two types of balance-sheet business: deposit and bank loan. Assume the rate of deposit  $r_D$ , the rate of bank loan  $r_L$ , and the general fee rate of intermediate business  $p$  are all regulated by central bank within Chinese transition economy.

(ii) The bank's resources include business emphases, human resources and funds. For intermediate business, mainly make use of human resources owing to its little fund using. Suppose bank's total resources are 1,  $l$  is the resource proportion allocated to balance sheet business,  $1-l$  to intermediate business. Then the amount of deposit, loan and intermediate business are the function of resources allocation, which are not interdependent, denoted by

$$D(l), L(l) \text{ and } I(1-l).$$

$$\text{Where } L = kD, k \in [0,1] \quad D' = L' \text{ and } I'(1-l) > 0.$$

$$D'' = L'' \text{ and } I''(1-l) < 0, \quad I' = \frac{dI(1-l)}{dl} < 0, I'' = \frac{dI'(1-l)}{dl} > 0.$$

(iii) Assumed the operation cost function of deposit, loan and international business is linear, given by the following equation,

$$C = C(D, L, I) = a_1D + a_2L + a_3I \quad \text{where } a_1, a_2, a_3 \geq 0$$

(iv) Consider the credit status is asymmetry between bank and borrower. For SOCBs, so far they will not default on any deposit and interest payment owing to state's guarantee, whereas it is possible for borrower to default on bank loan repayment. So banks' expected interest income of loan is  $E(\theta)kr_L D(l)$ .  $E(\theta)$  is defined by borrower's expected credit level distribution, where  $\theta$  is on the interval  $[0, 1]$ .  $\theta$  equals to 1 if a borrower can repay the loan for a certainty. The real general interest margin of bank is denoted by  $(\tilde{r}_L - r_D)$  where  $\tilde{r}_L = E(\theta)kr_L$ .

(v) The bank will maximize its profit, which depends on resources allocation optimization between liabilities, assets and intermediate business.

**The Impact of 3 Parameters on  $I(1-l)$**

**The Equilibrium Resources Allocation of the Bank**

Because  $\theta$  is an uncertain value, the bank's expected return will be

$$E[\Pi(l)] = E[\theta r_L L(l)] - r_D D(l) + pI(1-l) - [a_1 D(l) + a_2 L(l) + a_3 I(1-l)] \tag{1}$$

The bank will try to maximize its expected return based on resources allocation optimization,

$$\max_l E[\Pi(l)] = E(\theta)r_L kD(l) - r_D D(l) + pI(1-l) - [a_1 D(l) + a_2 L(l) + a_3 I(1-l)] \tag{2}$$

Solve the first order conditions, we have

$$\frac{\partial E[\Pi(l)]}{\partial l} = E(\theta)r_L kD' - r_D D' + pI' - a_1 D' - a_2 kD' - a_3 I' = 0 \tag{3}$$

Then the equilibrium resources allocation will be

$$[E(\theta)kr_L - (r_D + a_1 + ka_2)]D' = (p - a_3)I'(1-l) \tag{4}$$

The left hand side of equation (4) is expected marginal return of balance sheet business, the right hand side of equation (4) is expected marginal return from intermediate business. The equilibrium resources allocation  $l^*$  is determined by comparing bank's expected marginal return from balance-sheet business and intermediate business. Solve equation (4), we can get  $l^*$  and  $1-l^*$ , then the corresponding  $D(l^*), L(l^*)$  and  $I(1-l^*)$ .

### The Impact of $E(\theta)$ on $I(1-l)$

Assume other parameters are all constant except for  $E(\theta)$ , resources proportion allocated to intermediate business is decreasing in  $E(\theta)$ . From equation (4), we can get the following differential equation,

$$kr_L D' dE(\theta) + E(\theta)kr_L D'' dl - (r_D + a_1 + ka_2)D'' dl = -(p - a_3)I''(1-l)dl \quad (5)$$

we can see that,

$$\frac{\partial l}{\partial E(\theta)} = -\frac{kr_L D'}{[E(\theta)kr_L - (r_D + a_1 + ka_2)]D'' + (p - a_3)I''(1-l)} \quad (6)$$

Being a rational bank, it will provide loan if  $E(\theta)kr_L - (r_D + a_1 + ka_2) > 0$  or engage in intermediate business if  $p - a_3 > 0$ .

$$\text{And } D' > 0, D'' < 0, I''(1-l) < 0, \text{ then } \frac{\partial l}{\partial E(\theta)} > 0 \quad \frac{\partial(1-l)}{\partial E(\theta)} < 0$$

During 1995-2002, Chinese SOCBs and state-owned enterprises (SOEs) were facing severe managerial problems with lack of sound corporate governance, local governments tend to intervene in bank loan, and law environment couldn't work as we wish. These factors as well as some historical factors resulted in high default frequency of SOEs and then a high ratio of bad assets of SOCBs. This decreasing of borrower's credit level had a positive impact on resources allocation to intermediate business.

### The Impact of $(\tilde{r}_L - r_D)$ on $I(1-l)$

Assume other parameters are all constant except for  $(\tilde{r}_L - r_D)$ , resources proportion allocated to intermediate business is decreasing in  $(\tilde{r}_L - r_D)$  or the average regulated interest margin  $(r_L - r_D)$ . From equation (4), we can get the following equation,

$$[(\tilde{r}_L - r_D) - (a_1 + ka_2)]D' = (p - a_3)I' \quad (7)$$

Then we can get the following differential equation,

$$\begin{aligned} \frac{\partial l}{\partial(\tilde{r}_L - r_D)} &= \frac{D'}{-(\tilde{r}_L - r_D - a_1 - ka_2)D'' - (p - a_3)I''(1-l)} \\ \frac{\partial(1-l)}{\partial(\tilde{r}_L - r_D)} &= -\frac{\partial l}{\partial(\tilde{r}_L - r_D)} < 0 \end{aligned} \quad (8)$$

Since 1995, the average regulated interest margin  $(r_L - r_D)$  has consecutively decreased, from 4.67% to 3.45% in 2002. This decreasing of regulated interest margin had a positive impact on resources allocation to intermediate business.

### The Impact of $p$ on $I(1-l)$

Assume other parameters are all constant except for  $p$ , resources proportion allocated to intermediate business is increasing in  $p$ .

From equation (7), we can get the following differential equation,

$$\frac{\partial(1-l)}{\partial p} = \frac{-I'(1-l)}{(\tilde{r}_L - r_D - a_1 - ka_2)D'' + (p - a_3)I''(1-l)} > 0 \quad (9)$$

During 1995-2002, the decreasing of general fee rate of intermediate business caused by bad competition hindered resources allocation to intermediate business. Until recent years, general interest margin still remain the major profit source of Chinese SOCBs. Firstly, they have long been encouraged to focus on issuing loans rather than off-balance-sheet business. Secondly, even for a variety of fee collection business, most of them only were treated as a mean of

competition in deposit market share, charge a little or no charge. Such as the inactive cards, also referred to hibernating cards, have cost banks a lot of money, but contributed little to revenues.

#### The Impact of Agency Problem on $I(1-l)$

SOCBs' unsound governance is characterized by having a huge filiation framework, too many levels and improper authorization, which makes banks in each level out of the control of general bank. SOCBs often orient to government official standard, make them bureaucracy in internal operation. The decision-makers in each level with short-term tenure are inclined to short-term target, rather than durative reform. The decision-maker's pursuing his private utility maximization rather than the institution's profit maximization is the so-called agency problem. The improper systems of manage responsibility in SOCBs result in misusing of authority, embezzlement or malpractices.

#### The Equilibrium Resources Allocation with Agency Problem

Due to agency problem, the decision-maker will pursue his private utility maximization rather than the institution's profit maximization. The utility function of decision-maker  $U(p)$  is defined as follows:

$$U(p) = \alpha L + \beta[(\theta r_L L - r_D D + pI - C(D, L, I)) - \gamma(1 - \theta)L] \quad (10)$$

Where  $\alpha L$  represents decision-maker's self-interest get from loan borrower,  $\gamma(1 - \theta)L$  is the penalty mechanism of NPLs' increasing,  $\beta[(\theta r_L L - r_D D + pI - C(D, L, I))]$  is the reward that decision-maker received from the bank.

Because  $\theta$  is an uncertain value, decision-maker try to maximize his expected self-interest through resources allocation arrangement. Here overlook  $C(D, L, I)$  for simplicity, then the equation (11) hold:

$$\max_l E[U(p)] = \alpha L(l) + \beta[E(\theta)r_L L(l) - r_D D(l) + pI(1-l)] - \gamma[1 - E(\theta)]L(l) \quad (11)$$

Solve the first order conditions, we have

$$\frac{\partial E[U(p)]}{\partial l} = \alpha L' + \beta[E(\theta)r_L L' - r_D D' - pI'(1-l)] - \gamma[1 - E(\theta)]L' = 0 \quad (12)$$

Then, the following equation (16) hold:

$$\alpha L' - \gamma[1 - E(\theta)]L' + \beta[E(\theta)r_L L' - r_D D'] = pI'(1-l) \quad (13)$$

The left hand side of equation (13) is the sum of expected marginal self-interest, marginal reward that decision-maker received from balance-sheet business and marginal penalty caused by increased NPLs. The right hand side of equation (13) is expected marginal reward that decision-maker received from intermediate business. The equilibrium resources allocation  $l^*$  is determined by comparing decision-maker's expected marginal utility from balance-sheet business and intermediate business. Solve equation (4), we can get  $l^*$  and  $1-l^*$ , then the corresponding  $D(l^*)$ ,  $L(l^*)$  and  $I(1-l^*)$ .

#### The Impact of $\alpha$ and $\gamma$ on Bank's Resources Allocation $I(1-l)$

Assume other parameters are all constant, from equation (13), we have

$$[\alpha + \beta E(\theta)r_L]L' - \beta r_D D' - \gamma[1 - E(\theta)]L' = \beta pI'(1-l) \quad (14)$$

From equation (14), we can get the following differential equation (15):

$$\{[\alpha + \beta E(\theta)r_L]L'' - \beta r_D D'' - \gamma[1 - E(\theta)]L''\}dl + L'd\alpha = -\beta pI''(1-l)dl \quad (15)$$

$$\frac{\partial l}{\partial \alpha} = \frac{L'}{-[\alpha + \beta E(\theta)r_L]L'' - \beta r_D D'' - \gamma[1 - E(\theta)]L'' - \beta pI''(1-l)} > 0 \quad (16)$$

$$\frac{\partial(1-l)}{\partial \alpha} < 0 \quad \text{similarly,} \quad \frac{\partial(1-l)}{\partial \gamma} > 0$$

If self-interest  $\alpha$  received from bank loan is high enough, decision-maker prefers to provide bank loan rather than intermediate business even facing a borrower with a very low level of credit. Although exist a penalty  $\gamma$ , because Chinese SOCBs were facing severe managerial problems with lack of sound corporate governance, we see that  $\gamma$  can't work as it supposed to be. Only the loss of bank caused by decision-maker's self-interest seeking can be identified and decision-maker be given a proper penalty, will the restrain mechanism  $\gamma$  do its work. During 1995-2002, the existence of agency problem had hindered resources allocation to intermediate business to a large extent.

## **An Expectation for the Development of Intermediate Business**

Despite of facing handicaps or difficulties, there are still many factors will benefit the development of intermediate business of Chinese banks in the future. Firstly, Chinese banks have all listed intermediate business as a key area for development. Secondly, procedures governing the charging of intermediate business has promulgated in a bid to promote its development. Thirdly, China is pushing market-oriented reform. Therefore we can expect that intermediate business of Chinese banks will get a real impetus and develop rapidly.

Since 2002, the foreign banks' arrival has exerted a significant impact on management and concept of Chinese banking. Chinese banks are conscious that balance-sheet business and intermediate business become interdependent in practice. That's to say, the good or bad performance of intermediate business will have an important impact on deposit or bank loan, they must enhance their financial service ability and make great efforts to tap and innovate intermediate business, or else they will lose good customers of balance-sheet business.

Now Chinese banks have all listed intermediate business as a key area for development, and so far recent years their income growth from intermediate business has mostly exceeded overall income growth. "Different services for different clients" is one of the ideas Chinese banks have learned from their foreign counterparts and most China's commercial banks have adopted the system of arranging managers for specific clients. ICBC posted 63.5 billion yuan (US\$7.65 billion) in revenues, 7 billion yuan (US\$845 million) of which came from intermediate business in 2003. ICBC expects its revenues in 2004 from intermediate business will exceed 10 billion yuan (US\$1.21 billion) and getting 30% of its income from intermediate business in 2010.

PBOC and the China Banking Regulatory Commission (CBRC), the industry's watchdog, decided early 2003 that Chinese banks should be allowed to impose fees from services, as the practice is common in other countries. Procedures governing the charging of intermediate business has promulgated in a bid to promote its development. Banking authorities have also allowed banks to collect account maintenance fees from depositors.

Since 2002, with the expansion of the new business cycle, it seems that China will enter an interest-rate-rising period, which benefits the ascending of general interest margin. This trend may have strengthened by two other factors: the market-oriented reform of interest rate and the raise of American interest rate. However, the increasing competition may weaken the rising trend of interest margin. Moreover, because balance-sheet business and intermediate business become interdependent, banks' good performance of intermediate business will bring them good bank loan customers, the increasing of borrower's credit level and regulated interest margin will not simply have a negative impact on resources allocation to intermediate business, may have a positive impact.

To deal with the agency problem, we should develop a comprehensive reform strategy that includes coordinates SOCBs and SOEs reform with the addition of government reform and law environment improving. Pursuing these four sectors reform simultaneously is particularly important in transition economy, they are large and highly interdependent.

For restructuring of the banking sector, the next-stage reform of SOCBs should put special focus on internal reform and establishment of effective corporate governance mechanism. SOCBs should continue to reform their institutional composition, institutional framework and ownership structure to achieve reform objectives including making duty and power arrangement symmetry, reducing operation risk and enhancing efficiency. The proposed listing of SOCBs on domestic and overseas stock markets is therefore seen as an integral step in, and vital to, the reform process. In December 2003, the country took its first major step towards preparing its large SOCBs

for listing on the Hong Kong and overseas stock markets by drawing on its massive foreign exchange reserves to inject \$45bn into two of its largest banks, ordering them to clean up their tattered loan books and improve lending practices to become internationally competitive banking firms. Once they are transformed into shareholding banks, a stiffer supervisory regime will take effect.

Today, China has become an important part of the world financial market with the rapid development of economic and financial globalization. In 2006, China's financial industry will open comprehensively to foreign competition and the financial market will, to a larger extent, be integrated with the global financial system. In China, banks have been accustomed to relying on growth to solve their problems. The improvement of China's financial regulation environment and the positive and steady development of Chinese economy as a whole, also provide a foundation for the sound development of the banking industry.

In a word, with the competition between domestic and foreign banks increasing and market-oriented reform pushed in China, intermediate business of Chinese banks will get a real impetus and develop rapidly.

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## AVR (Audience Variation Rate) As a New Predictor of Film Performance

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### Abstract

This study analyzes the relationship between 'AVR (audience variation rate)' and box office performance of film. We investigate the relationship between AVR and box office number (admissions). Further, we develop one index - 'APS' (audience per screen) as a variable of film performance efficiency (or box office return) - , and additionally analyze the relationship between APS and AVR. Our analyses of actual box office data suggest that 'AVR' is an important predictor as forecasting box office performance. Especially, it is more critical as forecasting box office returns than box office number (admissions). Taken together, the findings not only show that AVR is a useful predictor of box office performance and but also offer insight into how film studio can strategically manage 'AVR' to enhance box office performance, especially box office returns.

### Introduction

As the world shifts to service economy (Shugan 1994), we find enormous growth in the entertainment industry, including movies, theaters, music, cable television, home videos, and other recreational services. Especially the motion picture industry has experienced continuous growth although in the recent economic recession period. According to the Motion Picture Association of America (MPAA), Box Office has increased over \$6billion in the past 20years and 7 films released in 2003 grossed over \$50million on their opening weekend, with *The Matrix Reloaded* claiming the top spot (opening at \$92million). The total number of films released in 2003 increased 1.5% and MPAA new releases grossed an average of \$41.6million - an increase of 27% over the prior year. In that same year, the average production and marketing costs of a movie were \$64million and \$39million, respectively.

Despite of their profit potential, many films continue to fail to meet studio expectations at the box office (e.g., *Water world*). According to Vogel (1994), less than 70% of movies are profitable. Moreover, given the short life cycle of most films, the risk in new product development is high (Shugan 1995). Studios must seek ways to both enhance the likelihood of success and predict failure. However, demand for a new movie is highly uncertain, since movies are "experiential" products, and it is difficult for consumers to evaluate the quality of a movie until they have actually experienced it (Hirschman and Holbrook 1982, Holbrook and Hirschman 1982, Eliashberg and Sawhney 1994). Given the importance of new movies and the uncertainty in predicting the Box Office forecasts is extremely high in this industry (Sauhney and Eliashberg 1996).

Various research has focused on forecasting the commercial success of movies (Smith and Smith 1986, Austin and Gordon 1987, Dodds and Holbrook 1988, Sawhney and Eliashberg 1996, Eliashberg and Shugan 1997). Additionally, some research has begun to emerge addressing diffusion (Mahajan, Muller and Kerin 1984, Jones and Ritz 1991), seasonality (Radas and Shugan 1998), release timing (Krider and Weinberg 1998), clustering (Jedidi, Krider, and Vwinberg 1998), sequential products (Lehmann and Weinberg 1998, Prasad, Mahajan, and Bronnenberg 1998), contract design (Swami, Lee, and Weinberg 1998), and the impact of advertising (Zufryden 1996), all in the context of motion pictures. But, the predictive power of these variables could be poor and appears to be unstable over time (Eliashberg and Shugan 1997). Most of these research focused revenue and didn't deal with return as a box office performance variable. More over, even research dealing with box office return couldn't identify factors influencing it. Ravid(1999) and John, Ravid, and Sunder(2002) show that though big budget are correlated with higher revenue, they are not correlated with returns. If anything, low-budget films appear to have higher returns.

We consider one important factor - Audience Variation Rate(AVR) - as a new predictor of film performance. We investigate the relationship between AVR and box office number (admissions). Further, we develop one index - 'APS'(audience per screen) as a variable of film performance efficiency (or box office return) -, and additionally

analyzed the relationship between APS and AVR.

Our analyses of actual box office data suggest that AVR is an important predictor as forecasting box office performance. Especially, it is more critical as forecasting box office returns than box office number(admissions). Therefore film studio must strategically manage 'AVR' to enhance box office performance, especially box office returns.

## **Empirical Analysis**

### **Data and Variables**

Our data include 71 films that lasted in theaters at least two weeks during the period March 2003 to August 2004. It includes about 65% of the movies released by Korea productions. Because of data availability, we confine our analysis to films released in Seoul.

#### **Cumulative box office number**

Korea film council I(KOFIC) reports the total admissions(cumulative box office number) for each film. Because Korea has not produced box office revenue data officially, these figures serve as our first dependent variables showing box office performance.

#### **Audience per screen (APS)**

Because Korea has not produced box office return data, we develop this index for the purpose of showing it(or film performance efficiency). By definition, APS should be 'total cumulative admission / total screen'. But, we compute it at 'total cumulative admission / first-week screen' because of impossibility to obtain total number of screen data of Korea movies. These figures serve as our second dependent variables showing box office performance.

#### **Audience Variance Rate (AVR)**

This variable means 2nd week admissions per 1st week admissions in Seoul. In developing this index, we use the weekly box office number published by *CINE21* (Korean film magazine).

#### **Screens**

It means the first week number of screens in Seoul for each film.

#### **Film life in weeks**

*CINE21* (Korean film magazine) publishes a list of the Korea Box Office top 10 of the week. We define film life as the week which was among the top 10 movies.

#### **Summary Statistics**

In Table 1, we provide an illustrative sample of our motion pictures, their film life in weeks, first week screens, first week box office, audience variance, cumulative box office, audience per screen.

TABLE 1: SELECTED MOTION PICTURES

Film	Film Life in Weeks	First Week Screens	First Week Box Office	Audience Variance Rate	Cumulative Box Office	Audience Per Screen
The First Amendment	2	40	23,773	42.2%	71,646	1,791
My Teacher, Mr. Kim	8	60	111,144	94.9%	856,680	14,278
Save the Green Planet	2	27	11,000	18.2%	32,683	1,385
Oh! Happy Day	4	47	67,449	62.3%	280,523	5,969
Memories of Murder	10	54	120,763	101.1%	1,912,725	35,421
A Tale of Two Sisters	5	52	151,811	115.7%	1,017,027	19,558
Singles	5	58	148,231	67.5%	859,347	14,816
A Good Lawyer's Wife	6	32	74,600	99.5%	636,721	19,898
Untold Scandal	7	76	208,026	77.9%	1,292,951	17,013
Old Boy	9	45	132,000	106.1%	1,172,921	26,065
Silmido	12	83	192,000	102.1%	3,262,000	39,301
Spirit of Jeet Kune Do	6	67	165,617	79.9%	1,020,869	15,237
Taegukgi	12	110	299,900	104.2%	3,509,563	31,905
The Wolf Returns	2	378	18,124	31.8%	51,264	1,386
The Big Swindle	5	50	87,000	118.8%	776,928	17,532
Arahan	7	87	112,640	74.2%	756,000	8,690
Dance With the Wind	3	40	32,500	59.5%	112,463	2,812
The President's Barber	5	65	120,835	79.1%	661,957	10,184
Low Life	3	56	29,000	19.3%	196,000	3,500
Windstruck	4	75	163,000	59.5%	665,531	8,874
Love So Divine	3	56	86,234	43.7%	311,663	5,565
Fighter in the Wind	5	41	116,303	72.1%	579,027	14,123

In Table 2, we provide summary statistics for our motion pictures. The average number of first-week screens is 44, the average film life is 3.94 weeks, the average first-week admission is 80,177 persons, and the average total cumulative box office is 482,100 persons. The average audience variance rate is 63.73% and the average audience per screen is 9418. In our sample, *Taegukgi* had the highest total cumulative box office (3,509,563 persons) and *Silmido* had the highest audience per screen (39,301 persons per screen).

TABLE 2: MOTION PICTURES SUMMARY STATISTICS

Variable	Median	Mean	Standard Deviation
Film life in weeks	3.00	3.94	2.29
Screens (first week)	40.00	43.87	17.56
Box office (first week admission)	67,200.00	80,176.59	56,706.59
Cumulative box office	292,190.00	482,099.52	609,252.22
Audience variance rate	63.40%	63.73%	25.24%
Audience per screen	7096.00	9417.77	7482.26

Number of Observations = 71

**Findings**

To understand the impact of AVR on motion picture box office performance better, we add the number of screens known as a significant predictor of box office revenue (Eliashberg and Shugan 1997, Elberse and Eliashberg 2002) as a independent variable to the regressions. And we divide box office performance measure into two variables. One is cumulative box office number (total admission) and the other is audience per screen. Table 3, 4, and 5 contain our regression results for movies with lives at least two weeks.

In Table 3, we show the results of regressing the number of screens and AVR on the box office performance. The table shows that both the number of screens and AVR are statistically significant predictors of the box office and

APS. But, the size of the effect these variables on the box office and APS are different. Though the effect of the number of screens on the box office is greater than AVR (Screen .613 vs. AVR .304), AVR has a more effect on audience per screen than the number of screens (Screen .286 vs. AVR .563).

TABLE 3: EFFECT OF SCREENS AND AUDIENCE VARIATION RATE ON BOX OFFICE PERFORMANCE

Variable	Multiple R <sup>2</sup> (Adjusted Multiple R <sup>2</sup> )	Screens		Audience Variation Rate		F-Ratio (p-value)
		Standardized Coefficient	t-statistic (p-value)	Standardized Coefficient	t-statistic (p-value)	
Cumulative Box Office	.631 (.620)	.613	7.475 (.000)	.304	3.707 (.000)	58.047 (0.000)
Audience Per Screen	.539 (.526)	.286	3.120 (.003)	.563	6.150 (.000)	39.796 (.000)

Number of Observations = 71

In Table 4, we show that, for the movies with over 40 first-weeks screens, both the number of screens and AVR are also statistically significant predictors of the box office and APS. The box office is more influenced by the number of screens than AVR (Screen .658 vs. AVR .433), on the other hand, APS is more influenced by the AVR than the number of screens (Screen .372 vs. AVR .608).

In Table 5, we show that, for the movies with 40 and less than first-week screens, the number of screen is a statistically insignificant (i.e., .167) predictor, but the AVR is a statistically significant ( $p < .00$ ) predictor of the box office. In the effect on APS, the number of screen is a less significant (i.e., .058) predictor than the AVR (i.e., .000). at the .05 level). Moreover, the table shows that the effect of the number of screens on APS is negative (-.259), but AVR has not only a positive but also great (coefficient value .737) effect on APS.

TABLE 4: EFFECT OF SCREENS AND AUDIENCE VARIATION RATE ON BOX OFFICE PERFORMANCE (SCREENS > 40)

Variable	Multiple R <sup>2</sup> (Adjusted Multiple R <sup>2</sup> )	Screens		Audience Variation Rate		F-Ratio (p-value)
		Standardized Coefficient	t-statistic (p-value)	Standardized Coefficient	t-statistic (p-value)	
Cumulative Box Office	.710 (.692)	.658	6.825 (.000)	.433	4.489 (.000)	39.122 (.000)
Audience Per Screen	.579 (.553)	.372	3.208 (.003)	.608	5.239 (.000)	22.046 (.000)

Number of Observations = 35, film with over 40 screens

TABLE 5: EFFECT OF SCREENS AND AUDIENCE VARIATION RATE ON BOX OFFICE PERFORMANCE (SCREENS ≤ 40)

Variable	Multiple R <sup>2</sup> (Adjusted Multiple R <sup>2</sup> )	Screens		Audience Variation Rate		F-Ratio (p-value)
		Standardized Coefficient	t-statistic (p-value)	Standardized Coefficient	t-statistic (p-value)	
Cumulative Box Office	.520 (.491)	.180	1.414 (.167)	.642	5.038 (.000)	17.889 (0.000)
Audience Per Screen	.487 (.455)	-.259	-1.966 (.058)	.737	5.590 (.000)	15.636 (.000)

Number of Observations = 36 film with 40 and less screens

## Discussion and Managerial Implications

Previous researches related to the box office performance identify the antecedents of the box office revenue, but the predictive power of those variables appears to be unstable (Eliashberg and Shugan 1997) and they (i.e., big budgets) are not correlated with box office returns (Ravid 1999; John, Ravid, and Sunder 2002).

Our empirical findings suggest a statistically significant relationship between AVR and the box office performance. Especially, AVR is a very strong predictor of the box office return (i.e., audience per screen). The

number of screens is a statistically significant predictor of the box office such as previous researches (Eliashberg and Shugan 1997, Elberse and Eliashberg 2002), but it is insignificant for predicting the box office of the small and medium-sized movies with 40 and less than first-week screens. Moreover, the number of screens has not only a smaller effect on the box office return than AVR but also it has a negative effect on the box office return of the small and medium-sized movies with 40 and less than first-week screens. AVR, therefore, is a very important predictor of both the box office performance, especially box office return.

These results suggest that studios must strategically manage AVR to enhance box office performance. Especially, Studios with low budget (i.e., therefore with few screens) have to pay more attention to AVR for the success of the movie.

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# **The Relationship of Industry Cluster and Performance: The Case of Financial Holding Industry**

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## **Abstract**

**From the results of practical investigation, this research presents that there exists industry cluster in financial holding companies industry. According to cluster category, the industry divided into three clusters: Banking-dominant cluster, Insurance-dominant cluster and Security-dominant cluster basing on Grey Clustering Analysis. By deeply exploring the result, there exist significant differences among the three clusters in financial performance, however, not in non-financial performance. Therefore, the result of this research demonstrates that industry cluster is very important explanatory factors of the financial performance in financial holding industry. In the aspect of practical development, this study suggests every FHC should reduce the homogeneity by differentiating themselves, seek to cooperate with international finance group and merge with each other for realizing the synergy thoroughly.**

## **Introduction**

With the fast development of global market during the past decade, financial institutions are getting bigger and more conglomerate; Japan took the lead to revise its Anti-monopoly Law in 1997 allowing financial institutions to engage in cross-business activities in the form of financial holding company. In addition, in 1999 the U.S. passed the Modern Financial Laws, or the so-called Glass-Steagall Act, and lifted the ban on financial institutions from doing cross-business activities, which gives financial institutions the green light to establish financial holding companies to do a wider spectrum of finance-related businesses given that certain legal requirements are met. Similarly, globalization and joint of WTO have made Taiwan government to speed up the opening of financial market. Taiwan had carried the Merger Law of Financial Institution and Financial Holding Company in 1999 and 2001, respectively, giving the thumbs-up for merger between banks and establishment of financial holding company. It has been three years since the successive establishments of 14 financial holding companies in Dec. 2001. Owing to the deregulation and liberalization, the competition in financial sector is getting fiercer than ever within a different industry sector. The most experts and practitioners predict that some banks will forced to exit the markets, and even the larger scale financial holding companies, they facing the common problem that is “too many and too small” compared with the international financial group. Thus, for survival, the prior job for all financial holding companies is to identify their own niche market by appropriately strategic positioning and differentiate themselves from others to fight back with the evasion of foreign large financial group.

The financial industry is consolidating at an accelerating pace: the integration of financial markets has blurred distinctions between activities such as lending, investment banking, asset management, and insurance. Technological innovations and a thorough-going deregulation have prompted a wave of mergers in the banking industry throughout the world, starting in the United States in the eighties and reaching Europe in the nineties. To date most studies in this area have been conducted in western countries and in North America. Little has been done within Chinese communities, particularly in Taiwan. In order to make up the deficiency of past research, this study uses a new research design to highlight this phenomenon in fourteen Taiwan Financial Holding Companies (hereafter, FHC stand by Financial Holding Company) that are of crucial economic importance to the Taiwan economy. Thus, the main purpose of this study is to find out the unique financial strategic positioning of one strategic group and its relation to performance. According to the empirical results, we hope to offer some valuable suggestions to the managers in financial industry and all stakeholders.

This study will use the strategic group as unit of analysis and the wholes sample is fourteen FHCs. The research questions are:

1. Dose there exist different cluster within financial holding companies?

## 2. Do between-clusters profitability differences exist? Which one is the best and why?

This study is structured as follows. First, we briefly review the latest evolution of financial industry in Taiwan. Next we review extant literature with regard to industry cluster and then select the key dimensions for identifying different industry cluster. Third, hypotheses are proposed by using the aforementioned theories about performance differences across industry clusters. Fourth, we describe how we tested the hypotheses in a sample of fourteen FHCs. At last, we present the empirical results and some suggestions.

## Literature Review

### Brief Review of Financial Reform in Taiwan

Starting from 1991, Taiwan embarked on the policy of financial liberalization and internationalization by granting new banking licenses and encouraging foreign banks to join the local market. Over-competition in the financial market has led to deterioration in the profitability of banks and the qualities of their loan assets. After Taiwan's entry into the WTO in January 2002, financial institutions have encountered increasing competition and threat from foreign banks. To lay a solid foundation for the financial reform, the government has enacted or amended 13 financial laws and regulations since 2000. These include the Banking Law, Deposit Insurance Act, Financial Institutions Merger Law, Trust Enterprise Act, Financial Holding Company Law, Statute for the Establishment and Administration of the Financial Restructuring Fund, Financial Asset Securitization Act, and so on. The main purpose of the financial laws was to make financial institutions stronger and healthier through mergers and acquisitions, universal banking, diversification of financial services, financial innovation, development of new financial products, and asset securitization, thereby enhancing their international competitiveness.

After the concerted efforts of the government and financial institutions, significant progress has been made in the implementation of reform. Mergers and acquisitions between financial institutions have been sped up. Eight M & A events have occurred in the past three years. As of today, 14 financial holding companies have been established. A financial holding company may integrate clients of banking, securities, and insurance subsidiaries. Within the company, cross-selling of financial products is allowed and the mutual use of information, equipment and human resources becomes possible.

The financial industry of Taiwan did not have an integrated system for development; it also lacked credible institutions and indices for financial management and operating performance evaluation purposes. Since 1991, the Ministry of Finance (MOF) licensed the establishment of sixteen new banks, afterwards, the MOF allowed the conversion of credit cooperatives, trust investment companies, and small & medium business banks into commercial banks; hence the soaring increase in numbers of commercial banks. In the process, the nation saw an excessive number of similar banking products, thus diminishing the margin between bank profits. The stiff price competition resulted to the development of "too many banks with not enough businesses to handle"; as a result non-performing accounts began to pile up.

### Industry Cluster

What is an Industry Cluster? Professor Michael E. Porter of the Harvard Business School, whose 16 books and more than 100 articles have provided the basis for the analysis and use of industry clusters, has defined an industry cluster as "a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities." Another basic definition of an industry cluster is "geographical concentrations of industries that gain performance advantages through co-location (Doeringer and Terkla 1995, pg.225)." These definitions of clusters are similar to that of agglomeration economies, but in fact, it is within industry clusters that agglomeration economies are likely to be observed. Beyond the basic definition, however, there is little consensus on how to define an industry cluster. Porter provides a simple definition of two types of clusters: vertical clusters, and horizontal clusters. Vertical clusters are made up of industries that are linked through buyer-seller relationships. Horizontal clusters include industries which might share a common market for the end products, use a common technology or labor force skills, or require similar natural resources (Porter 1990). Jacobs and DeMan (1996) and Rosenfeld (1996,1997) present more in-depth discussions of the different definitions of industry clusters, although these authors also use the definitions of vertical and horizontal clusters as the basis for their definitions. Jacobs and DeMan (1996, pg.425) argue that "there is not one correct definition of

the cluster concept...different dimensions are of interest.” They expand from the definitions of the vertical and horizontal industry clusters to identify key dimensions that may be used to define clusters. These include the geographic or spatial clustering of economic activity, horizontal and vertical relationships between industry sectors, use of common technology, the presence of a central actor (i.e., a large firm, research center, etc.), and the quality of the firm network, or firm cooperation (Jacobs and DeMan 1996). Rosenfeld (1997) includes criteria for defining a cluster, including the size of the cluster, the economic or strategic importance of the cluster, the range of products produced or services used, and the use of common inputs. According to Rosenfeld’s definition an industry cluster is: “a geographically bounded concentration of similar, related or complementary businesses, with active channels for business transactions, communications and dialogue, that share specialized infrastructure, labor markets and services, and that are faced with common opportunities and threats.” Rosenfeld’s definition clearly emphasizes the importance he places on the role of social interaction and firm cooperation in determining the dynamic nature of a cluster.

Based on the literature cited above, there are several common themes in the definition of an industry cluster. First, it is generally agreed that clusters are a dynamic phenomenon. It is the interaction and functional relationships between firms and industries that characterize a cluster (Doeringer and Terkla 1995). Secondly, most of the definitions of industry clusters reference the geographic scope of the cluster, and the importance of spatial proximity. However, while geographic scope is important in defining clusters, every cluster has different geographic requirements, so there is no uniform definition of the appropriate geographic scope of a cluster (Rosenfeld 1996, Jacobs and DeMan 1996, Jacobs and DeJong 1992). A third common theme is the importance of looking beyond individual industries and recognizing that individual firms are part of a much larger industrial system. Lastly, the role of social infrastructure in defining industry clusters is a theme prevalent in the literature. Rosenfeld (1996), in particular, argues that information flow is critical in an effective industry cluster, and, in order to facilitate information exchange, a social infrastructure is required. He points out that while the characteristics of a cluster may be present, it is not necessarily an effective cluster; an effective cluster must also include social interaction, trust, and a shared vision in order to create the dynamic nature of a cluster. The importance of social interaction is supported by the cluster definition developed by Jacobs and DeMan (1996), as well as by Saxenian (1994) in her discussion of Silicon Valley. The role of social infrastructure is important in the discussion of identifying industry clusters presented in the following section.

#### **Identification of Industry Clusters**

The varying definitions of industry clusters help explain the differing arguments regarding the methodology to identify clusters. One of the common approaches to identifying clusters is based on quantitative techniques, including location quotients and input-output (I-O) analyses (Rosenfeld 1997). These tools help identify relative concentrations of industries in the region, as well as identify the buyer-seller linkages in different industry sectors. Michael Porter relied heavily on this type of analysis to form the basis of his international study of industry clusters. The quantitative approach towards identifying industry clusters is generally regarded as a critical component of a cluster analysis. This type of analysis will provide an initial tool for identifying potential clusters and will indicate the relative presence of different industries in the local region. An I-O analysis is especially useful in the analysis of a vertically-integrated cluster, when the buyer-seller linkages are more obvious. However, the quantitative analysis does not address whether relationships really exist between the individual firms, and it does not account for other factors beyond the product-market relationships, such as industry collaboration and information flow (Doeringer and Terkla 1995, Jacobs and DeMan 1996, Rosenfeld 1996, 1997). “Although inter-industry transactions incorporated within production channels can not sometimes be detected in input-output tables, neither the character nor relationships among firms nor can the benefits of clustering be discerned in this way (Doeringer and Terkla 1995, pg.228).

There is a general consensus in the literature that in order to truly identify industry clusters it is necessary to conduct a qualitative analysis in addition to the quantitative analysis. Surveys and interviews of key industry representatives will help expand an understanding of the buyer-supplier relationships, as well as further identifying commonalities between industries (i.e., workforce or infrastructure needs, or technologies used). The use of the qualitative analysis will both confirm the findings of the quantitative analysis, as well as help identify potential industry clusters that may have been overlooked by the conventional data analysis (Doeringer and Terkla 1995,

Jacobs and DeMan 1996, Sternberg 1991, State and Local Policy Program 1998). Synthesizing the points of view from different streams, this study adopts the qualitative analysis to identify the industry cluster by using depth interviews and market surveys. We identify key dimensions to define clusters, including: geographically bounded concentration, vertical corporation relationships, horizontal competition or substitution relationships, horizontal corporation relationships and sharing the common resources.

## Research Design

### Conceptual Framework

As stated earlier, the purpose of this study is to identify the industry clusters and explore their performance implications. More specifically, this study rests upon two major research questions pertaining to the effects of industry cluster. Therefore, the empirical framework is composed of three major parts: key dimensions of industry cluster, industry cluster of FHC and cluster's performance. This study uses some special research methods to link these three parts, including the grey clustering and ANOVA. And they are depicted as Fig. 1:

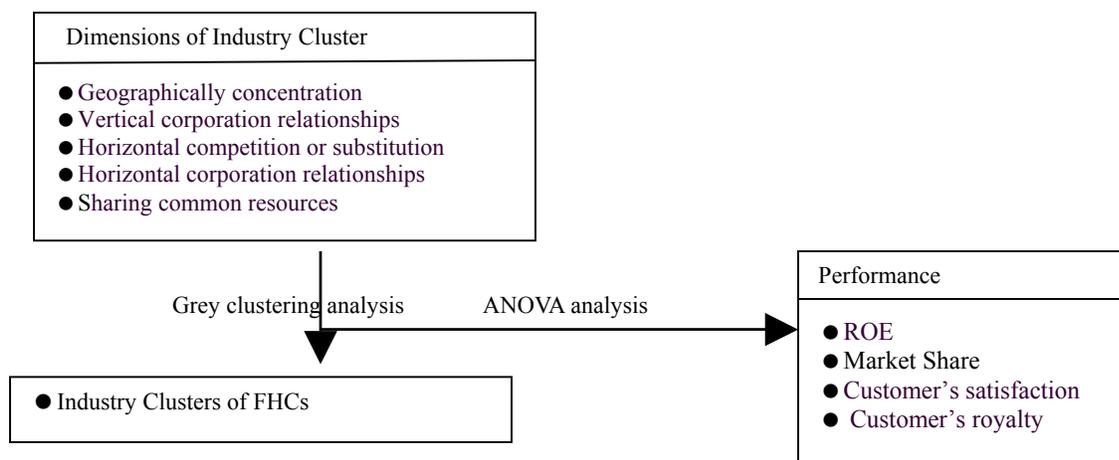


FIG. 1: EMPIRICAL FRAMEWORK

### Research Hypotheses

According to the purposes of this study and the empirical framework in Fig. 1, this study has offered some relevant research hypotheses to explore the performance implications of different clusters.

Industry clustering refers to some firms within the same industry pursue the same or similar goals, or composition of firms which got similar industry features. Thus, some firms in the same industry, in order to reach the specific goal, will present different clustering phenomena. Therefore, by observing the key dimensions will identify the existence of different industry clusters within the same industry. According the discussion above, we can offer the first hypothesis:

*Hypothesis 1: According the different persuasion of industry dimension, there really exist different industry clusters within financial holding industry.*

Pointed out by extant research, different kinds of industry cluster exist differences in the performance (including subjective and objective performance measures), hence, this study develop the second hypotheses:

*Hypothesis 2-1: Between different industry clusters, there exists significant difference with regard to ROA.*

*Hypothesis 2-2: Between different industry clusters, there exists significant difference with regard to market share.*

*Hypothesis 2-3: Between different industry clusters, there exists significant difference with regard to customer satisfaction.*

*Hypothesis 2-4:* Between different industry clusters, there exists significant difference with regard to customer royalty.

#### **Data Collection and Sampling**

To test the hypotheses developed above, the procedures for collection the empirical data and the sampling frame is postulated as follows.

Two data collection methods are to be used in this research: field interviews, and questionnaire. Yet, this study mainly employs a mail questionnaire survey to collect data from FHC managers and their customers.

According to interviews and previous study (Heide and John, 1990) it is important to find the right informant given the non-uniform distribution of knowledge among potential informants. The key informant should be the focal person in the firm who play the role as a focal point for relations with a given customer. In most cases he or she would be the leader of a team taking care of the whole business activities. To formally assess informant competency through survey items, the question measuring the respondent's knowledge of the relationship between FHCs and customers that was reported in the beginning of questionnaire. The respondent indicated insufficient knowledge, reporting a four or less scale, will be eliminated after the questionnaires were returned. However, their knowledge and involvement will be assessed via self-reports, which could be a limitation of this sample. Interviews with managers of FHCs and filed visits to their branches are made before the questionnaire is designed.

According to the data reported by Taiwan Institute of Economic Research on their web site, the total number of FHCs in Taiwan was 14 in 2003; the detailed is shown as Table 1.

TABLE 1: BASIC DATA OF 14 FINANCIAL HOLDING COMPANIES

	<b>Company name</b>	Funded	Asset (in hundred million NT\$)
1	HUA NAN FINANCIAL HOLDING CO., LTD.	12/19/2001	472.85
2	FUBON FINANCIAL HOLDING CO., LTD.	12/10/2001	825.41
3	CATHAY FINANCIAL HOLDING CO., LTD.	12/31/2001	830.75
4	CHINA DEVELOPMENT FINANCIAL HOLDING CORP.	12/28/2001	1183.92
5	E. SUN FINANCIAL HOLDING CO., LTD.	1/28/2002	250.63
6	FUHWANG FINANCIAL HOLDING CO., LTD.	2/4/2002	289.44
7	MEGA FINANCIAL HOLDING CO., LTD.	2/4/2002	1136.57
8	TAISHIN FINANCIAL HOLDING CO., LTD.	2/18/2002	435.78
9	SHIN KONG FINANCIAL HOLDING CO., LTD.	2/19/2002	236.68
10	WATERLAND FINANCIAL HOLDING CO., LTD.	3/26/2002	211.99
11	SINOPAC FINANCIAL HOLDING CO., LTD.	5/9/2002	374.81
12	CHINATRUST FINANCIAL HOLDING CO., LTD.	5/17/2002	574.72
13	FIRST FINANCIAL HOLDING CO., LTD.	1/2/2003	554.91
14	JIH SUN FINANCIAL HOLDING CO., LTD.	2/5/2002	225.33

Source: Taiwan Institute of Economic Research

#### **Analytical Methods**

This study chose to adopt the grey relation analysis of the grey system theory to identify the industry clusters. The grey relation analysis and the grey system theory are briefly described below.

Deng, Julong, a professor of Hua Chung Science and Engineering University, proposed the grey system theory in 1982. The grey system theory in the last 20 years of development has become the basic analysis system for "grey relation area" with grey model becoming the principal model system expanding its use into other related research areas. Generally speaking, systematic behavior data series are random ones without a regular pattern and probability statistical methods are generally used in studying the random variables and processes. The grey system theory treats all random processes as a grey process within a scope. As long as the original data have three or four, it can be converted into grey model (Shen et al., 1998). Grey system's special characteristics are for systems containing incomplete message: 1) the system factors (parameters) are unclear; 2) the factors relationships are unclear; 3) the structure of a system is not clearly known; and 4) the theorem for the system's operation is not clear.

Conversely, white systems are those systems in which factors, relationships, structures and operation

theorem are obvious (Hsiao, 2000). Grey relation means when there is an uncertain relationship between things or the system's factor, or when the factor's effect upon the main behavior is unclear. Grey relation analysis is based on the microcosmic or macrocosmic proximity of geometry between behavioral factor series. It analyzes and decides the degree of influence between factors or measures the contribution of the factors to the principal behavior (Hsiao, 2000) Grey relation analysis needs just a small amount of data and its computation method is quite simple (Deng, 1986;1987; Yuan, 1991). There are several steps to achieve the industry clustering by using grey system theory:

- (1) Normalizing the original data;
- (2) Using equation (1) to compute the grey relation coefficient for each related factor's behavioral data series with regard to characteristic behavioral data series.

$$\zeta_i(k) = \frac{\Delta_{\min} + \rho\Delta_{\max}}{\Delta_i(k) + \rho\Delta_{\max}} \quad \text{Equation (1)}$$

in which,  $\Delta_i(k) = |x_0(k) - x_i(k)|$  is the absolute difference of two data series at "k position;  $\Delta_{\min} = \min_{\forall j \in i} \min_{\forall k} |x_0(k) - x_i(k)|$  and  $\Delta_{\max} = \max_{\forall j \in i} \max_{\forall k} |x_0(k) - x_i(k)|$  determine the minimum and maximum differences;  $\rho \in [0,1]$  is the identification coefficient used to weaken the influence of too big  $\Delta_{\max}$  value upon the grey coefficient. Thus, to cause the significant difference of the grey relation coefficients, we use  $\rho \leq 0.5$ .

- (3) Using equation (2) to compute the grey relation degree for each related factor's behavioral data series with regard to characteristic behavioral data series.

$$r_i = \frac{1}{m} \sum_{k=1}^m \zeta_i(k) \quad \text{Equation (2)}$$

- (4) Using size comparison to permute the obtained grey relation degree into a grey relation order, which will explain the relative influence of each factor's behavioral data series on the characteristic behavioral data series.

Regarding to examining the effects of clustering in subjective and objective performance, this study uses the traditional statistical analytical method, ANOVA to capture the difference.

## Empirical Results and Analysis

### Grey Clustering Analysis

After computing the Total decision matrix, this study identify three industry clusters by using grey clustering described in Table 2:

TABLE 2: INDUSTRY CLUSTERS

Company Name	Grey Clustering
HUA NAN FINANCIAL HOLDING CO., LTD.	Grey clustering 1
FUBON FINANCIAL HOLDING CO., LTD.	Grey clustering 3
CATHAY FINANCIAL HOLDING CO., LTD.	Grey clustering 3
CHINA DEVELOPMENT FINANCIAL HOLDING CORP.	Grey clustering 2
E. SUN FINANCIAL HOLDING CO., LTD.	Grey clustering 1
FUHWA FINANCIAL HOLDING CO., LTD.	Grey clustering 2
MEGA FINANCIAL HOLDING CO., LTD.	Grey clustering 1
TAISHIN FINANCIAL HOLDING CO., LTD.	Grey clustering 1
SHIN KONG FINANCIAL HOLDING CO., LTD.	Grey clustering 3
WATERLAND FINANCIAL HOLDING CO., LTD.	Grey clustering 2
SINOPAC FINANCIAL HOLDING CO., LTD.	Grey clustering 1
CHINATRUST FINANCIAL HOLDING CO., LTD.	Grey clustering 1
FIRST FINANCIAL HOLDING CO., LTD.	Grey clustering 1

According to the grey clustering processes, this study identified three industry clusters possessing different weights in key dimensions respectively; these results verify the hypothesis 1.

The ANOVA models (one for each variable) were constructed using cross-section data (2003) for the four variables. The F-Test at a 1% level of significance was used to determine the statistical significance of the differences. The result of the ANOVA test is summarized and reported in Table 3. As shown in Table 3, the p-values obtained from the ANOVA analysis on the four major performance measures, namely, ROA, market share, customer satisfaction, and customer royalty, are mixed at one percent level of significance ( $[\alpha] = 0.01$ ). The empirical result of ANOVA tests reveals that there are significant differences among the three industry clusters in objective performance; however, the differences in subjective performance – customer's satisfaction and royalty - are statistically insignificant.

TABLE 3: ANOVA RESULTS,  $\alpha=0.01$ 

Variables	P-Value	Estimation Results	Difference among the three clusters
ROA	0.000	support	Significant
Market share	0.000	support	Significant
Customer's satisfaction	0.408	Not support	Insignificant
Customer's royalty	0.554	Not support	Insignificant

## Conclusion

Basing on industry cluster theory, this study applies Grey Clustering Analysis, and ANOVA to discuss the relationship among cluster effect and performance in financial holding industry.

From the results of practical investigation, this research presents that there indeed exists the industry cluster in financial holding companies industry.

Through the grey clustering processes, the industry divided into three clusters: Banking-dominant cluster, Insurance-dominant cluster and Security-dominant cluster. By deeply exploring the differences in objective and subjective performance, we find the significant differences only exist in objective aspects. Therefore, the result of this research demonstrates that industry cluster is very important explanatory factors of the financial performance in financial holding industry. However, this study can not provide enough evidences to prove there exist significant differences between three industry clusters in subjective performance. And the subjective performance sometimes is more important than objective performance, since the former represent long-run and the later just a short-run phenomenon.

After reviewing the practical development of this industry, this study offer some suggests:

- (1) Every FHC should reduce the homogeneity and seek to differentiate by positioning themselves. A lot of FHCs took all efforts on the amalgamation in the past two years, and neglected the importance of products innovation, has caused the serious homogeneity.
- (2) Financial industry are relative closed compared with other industry in Taiwan, thus for competing globally, FHCs should cooperate with the international finance group to increasing the competitive advantages.
- (3) For achieving the 3C (Capital efficiency, Cross selling and Cost saving), the FHCs should merge with each other for realize the synergy thoroughly. That is, according to this study's finding: the all three industry clusters should consider enhancing networking relationships with other clusters.

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# Major Theories of Retail Institutional Change and Application to the Hong Kong Department Store Industry

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## Abstract

This paper evaluates theoretical models of retail institutional change, examines the history of the department store industry through the life cycle model, and explores how it can be applied to the case of the department store industry in Hong Kong. In this paper, section 2 surveys the current theoretical models of retail institutional change, and Section 3 argues that the retail life cycle theory is the most appropriate model to explain and predict retail institutional change among the current theories. The retail life cycle model is developed from the concept of product life cycle in marketing studies and it conceptualizes retail institutional change in four stages: introduction, growth, maturity and decline. Section 4 associates the scholarship on the development of the department store in the West with reference to the life cycle model. Section 5 applies the life cycle model to the case of department stores in Hong Kong. In conclusion, three research questions are formulated regarding department store industry in Hong Kong, and are deserved for further investigation.

## Introduction

A range of disparate approaches is adopted in the academic research on retailing (McGoldrick, 1999). An earlier classification of the approaches demarcates among: 1/ the economic theoretical understanding of the management of the retail store, 2/ the functional study of retail firms, 3/ the institutional approach, and 4/ the study of management decisions in a retail firms (Rachman, 1975). As the scholarship of retailing continues to growth, a more complex classification was suggested (Rosebloom and Schiffman, 1981). It identifies five groups of theories: 1/ retail entrepreneurial theory, 2/ retail institutional change theory, 3/ macro-retailing theory, 4/ retail operations theory, and 5/ retail shopping behavior theory.

Among them, theories of retail institutional change is the most important and prolific one for examining the types of retail formats — department stores, supermarkets, specialty stores, and discount stores — that have brought about the modern form of retailing. Retailing has become more complex with the historical increase of population, urbanization, and industrialization in the past few centuries (Shaffer, 1973). Retail institutional formats became more varied and individual companies in each format could develop slightly different institutional directions. In order to make sense of the contemporary reality of retailing, theories of retail institutional change are indispensable.

Theories of retail institutional change provide the most appropriate framework for studying the historical and diachronic dimension of retailing. They deal with the evolutionary processes, cycles, and the rise and fall of retail formats. Why did the structure of retailing change over the past two centuries? How would and should a particular retail firm change as time goes on? Why and how does a particular retail institutional format change? These theoretically and practically important questions cannot be examined without a thorough understanding of theories of retail institutional change. The first half of this study outlines and reviews the major theories of retail institutional change. The second half selects the most appropriate model amongst these theories for a subsequent analysis of department stores in Hong Kong.

The department store is a good test case for theories of retail institutional change. By surveying the relevant studies on department stores in the United States (Davidson, Bates et al., 1976; Moregenstein and Strongin, 1992) and Europe (Eurostat, 1993; McGoldrick 2002), the rise and fall of the department store industry in the West can be accurately understood with the retail life cycle model. The model is useful to analyze the history of the department

store industry in Hong Kong. Such an exercise will be worthwhile for showing the global generalization of the model as well as exploring a completely overlooked area in the study of retailing in Hong Kong.

## **Theories of Retail Institutional Change**

### **Historical Development of Theories of Retail Institutional Change**

There were already numerous working hypotheses in the field of retail institutional change in the 1950s. Most of them were constructed on the basis of the historical evolution of individual retail formats. Both the quality and quantity of publications on the topic marched a step forward in the 1960s as scholars began to formulate more explicit and general theories of retail institutional change.

In this early stage of the field, the dominating theoretical models were the natural selection model and the theory of dialectic process. Both theories were constructed out of and heavily influenced by concepts borrowed externally from scholarly fields that are remote from retailing. ‘Natural selection’ comes from Darwinian biology and ‘dialectics’ from Hegelian-Marxist philosophy of history.

Other models were the wheel of retailing model and the general-specific-general cycle model. Although they were less well accepted than natural selection and dialectic process models in the 1960s, they have become regarded as more significant as time went on. As cyclical theories gained increasing interest towards the end of the eighties, the theories of retailing have been applied to numerous cases of institutional structural change in American retailing (Davidson, Sweeny et al., 1987, Lewison, 1994).

Another major theory of retail institutional change, the retail life cycle model, was developed in the early 1970s out of the concept of product life cycle in the field of marketing. Contemporary scholarship on retail institutional change is dominated by the retail life cycle model and the wheel of retailing theory. Textbooks on retailing emphasize the wheel of retailing and retail life cycle (Morgenstein and Strongin 1992). Most of the popular discourses on change in retailing institutions are of the wheel of retailing or the life cycle varieties (Markin and Duncan, 1981). No new theories of retail institutional change are suggested in recent decades. Recent studies focus on evaluating the available models with empirical evidence and calibrating the models to the practical needs of retail businesses.

It would be ideal to have a single, universal theory of retail institutional change that allows management to forecast changes of any given retail institution. However, it is generally acknowledged among retail scholars that such a model is not obtainable. The most useful theoretical exercises are instead comprehensive and synthetic analyses of existing theories. Stephen Brown’s works are the most accurate and useful among them. He identifies three basic groups of theories out of the numerous schools of thought in the study of retail institutional change — environmental theories, cyclical theories, and conflict theories (Brown, 1987). Given the shortcomings of each of the approaches, he proposes a combination of the three approaches into a more general theory of institution evolution. Other researchers also suggest creating combination models that incorporate elements of environmental, cyclical and conflict theories (Agergard, Olsen et al., 1970; Brown, 1991; McGoldrick, 2002; Sampson and Tigert, 1994).

### **Major Varieties of Retail Institutional Theories**

Among the numerous theories of retail institutional change, five of them are recognized as the most practically useful and theoretically important.<sup>i</sup> They are the natural selection model, the dialectic process perspective, the retail accordion model, the wheel of retailing model, and the retail life cycle model (Lewison, 1994; McGoldrick, 2002). In the following, identify their theoretical background and rationale, highlight their key features, and briefly discuss how they may or may not be applied to the analysis of institutional changes in the department store industry in the West.

#### **Natural Selection**

The natural selection theory represents one of the most important environmental theories of institutional evolution. The concept of natural selection derives from Charles Darwin’s biological theory of life evolution (Hannan and Freeman, 1989). ‘Survival of the fittest’ is the central theme in the Darwinian theory of natural selection. It represents Darwin’s early view that organisms evolve and change on the basis of survival and that only those organisms that evolve in ways that are most fit with the environment survive. The natural selection theory sees

retail institutions as economic life forms that must adapt to environmental change. The retailing institutions that can most effectively adapt to environmental changes are the ones most likely to prosper or survive (Dreesmann, 1968; Etgar, 1984). Lewison (1994) describes the general environments of retailing in terms of social, cultural, political, legal, technological, economical, and competitive structure of the marketplace. Other theorists see the major environmental factors that affect retailers in terms of changes in consumer character (including demographic, social, economic factors), changes in technology, and changes in the competition (Cox and Brittain, 2000; Gist, 1968). The environmental approach takes account of changes in economic, demographic, social, political, cultural, legal, and technological conditions of the market are reflected in the retail system (Duncan, 1965; Meloche, Benedetto et al., 1988). Levy and Weitz (1998) find that retailing institutions that adapt to changes in customer, technology, competition, and legal environments have the greatest chance of success. The potential list of environmental conditions that might require adaptive behavior on the part of the retailer is almost endless. All theorists concur, though, that environmental suitability and adaptive behavior are necessary traits for the long-term survival of an institutional format.

In the beginning of the 1970s, it was widely believed that the environmental models would enable marketers to predict retail trends in different nations (Cundiff, 1965; Wadinambiaratchi, 1972). Nonetheless, the wide disparity of social, political, cultural, legal and historical forces at work among individual countries entailed greater diversity rather than uniformity in retail institutional evolution (Dawson, 1979). The retail environment is less useful for predicting what will occur than explaining past phenomena— it helps us to understand why an institution of retailing has changed in a certain way over time by specifying which environmental parameters affected it. It is useful for explaining known cases of success of some institutional species and the failure of others.

The natural selection model can be used to explain the rise and decline of department stores. It accounts for the general contours of their evolution but does not provide many insights about its details or practical advice for retail management. The environmental factors that allowed the department store to prosper include “the growth of cities, improvement in their transportation systems, a rise in the standard of living, increased capital, the coming of the electrical age, and the development of plate glass and retail advertising” (Mayfield, 1949: 28). More recently, department stores tried to battle specialty stores’ competition by creating small specialty stores or boutiques within themselves (Levy and Weitz, 1998). The department store is, at the same time, often cited as an example of a retail format that fails to adapt quickly to changes in external condition such as suburban growth of out-of-town stores and congestion in town centers. The department store industry in the US has declined because of its inability and unwillingness to adapt to the changing environment. For example, it continued with the traditional merchandise lines even when it was clear to many observers that other lines would come to occupy positions of greater importance in the budget of American households (Entenberg, 1957).

#### **Dialectic Process**

The dialectic process is a ‘melting pot’ theory of retail institutional change in which two different competitive forms of retailing interact to generate a new retailing institution. The dialectic process consists of a thesis, an antithesis, and a synthesis (Gist, 1968). Thesis refers to the original, antithesis to its opposite, and synthesis to the result (Lewison, 1994; Pioch and Schmidt, 2000).

The dialectics theory of Hegel and Marx asserts that the world transforms through complex processes. They force old and new modes to adapt to each other and then generate something that is different from a simple summation of the two modes. The dialectic process perspective in institutional change similarly claims that the thesis institutional mode spawns its own antithesis that in turn must also adapt to the thesis institutional mode. Through this mutual adaptation, the institution is changed into something beyond a simple summation of the thesis and antithesis institutional modes (Davidson, Sweeny, and Stampfl, 1987).

When challenged by a competitor with a differential advantage, an established institution will adopt strategies and tactics in the direction of that advantage, thereby negating some of the innovators’ attraction. The innovator, meanwhile, does not remain unchanged. The innovator over time tends to upgrade or otherwise modify products and institutions. In doing so, he moves toward the ‘negated’ institution. As a result of these mutual adaptations, the two retailers gradually move together in terms of offerings, facilities, supplementary service, and prices. They thus become indistinguishable or at least quite

similar and constitute a new retail institution, termed the synthesis. This new institution is then vulnerable to 'negation' by new competitors as the dialectic process begins anew (Maronick and Walker, 1974).

The dialectic model recognizes that retailers often mutually adapt in the face of competition and that new retail institutions result from stores borrowing characteristics from their competitors in a way that resembles how children are created by a combination of the genes of their parents (Levy and Weitz, 1998). The dialectic process becomes the early conceptual development of the conflict-evolution model that emphasizes the evolving nature of innovation and the interaction between responses of established retailers and actions and innovators (Dickinson, 1981).

The dialectical process may be employed to describe one of the aspects of institutional change in American department stores. The department store was originally developed as an institution offering hard goods, soft goods, a wide array of services, and attractive surroundings (the thesis). The challenging retail institution in the American context (the antithesis), the discount store, offered similar merchandise. But they were located in unattractive, low-cost surroundings and lacked customer services such as credit or delivery. The promotional department store (the synthesis) then emerged as a blend of the strengths of both the department store and discount store. K mart is an example of a promotional department store (Mason and Mayer, 1987). The 'thesis' institution was known for relatively high margins, low turnover, and plush facilities. The antithesis one had low-margin and high turnover. Over time, characteristics from both department stores and discount stores were synthesized in the form of discount department stores. The traditional department store format in the immediate post-World War II era emphasized downtown location, hierarchical management structures, personal service, fixed margins regardless of stock turnover, and such 'free services' as delivery and credit. The discount store of the early 1950s emphasized outlying locations, flat management structures, customer self-service, flexible margins, and low prices leading to high stock turnover. The early discount store was an innovative challenge to the traditional department store. The traditional department store was competitively challenged by its antithesis. The synthesis institution to emerge in the 1960s was the stable, chain-owned discount department store (Davidson, Sweeney et al., 1987).

#### **The Retail Accordion**

The accordion theory proposes that retail institutions fluctuate between the strategy of offering many merchandise categories with a narrow assortment and the strategy of offering a wide assortment with a limited number of categories. Hower (1943) was the first to notice this cyclical pattern in merchandising assortments. Hollander (1966) then extended this principle to individual institutions in order to describe their widening and narrowing of inventories over time. He finds merchandise assortment to be a significant aspect of retail institutional change. His important paper suggests that the history of retail development demonstrates a general-specific-general cycle, which is also known as the accordion pattern. The notion of accordion aptly describes the contraction and expansion of merchandise lines; market domination by general line, wide-assortment retailers often alternates with domination by specialized, narrow-line ones. Manson and Mayer (1987) similarly argue that retail institutions evolve over time from broad-based outlets with wide assortments to outlets offering specialized, narrow lines. Cox and Brittain (2000) also describe the tendency for retail business structure to be dominated by generalists and then by specialists. The specialized outlets would begin to offer a wide assortment over time and thus round out general-specific-general pattern. Lewison (1994) further explains that the changing character of retail competition stems from strategies that alter the width of the merchandise mix.

The accordion theory sheds light on the early development of the American retail structure (Hollander, 1966). But it is apparently too one-dimensional in its explanatory parameters to adequately handle the complex changes of the department store and the retail structure as a whole in a modern retail market. The early American retail system has undergone a general-specific-general cycle. In the middle of the nineteenth century, retail institutions that offered a wide variety of merchandise dominated the retail system (Gist, 1968). Examples include the department store and the mail-order dry goods store (Nystrom, 1932). Towards the end of the nineteenth century, the American retail system was characterized by a high degree of specialization. There were less than twenty different kinds of specialty stores in the United States at the opening of the nineteenth century, but over a hundred by the end (Jones, 1936). The retail structure switched back to general merchandise lines during the first half of the twentieth century (Oxenfeldt, 1960; 1961).

### **The Wheel of Retailing**

The pioneering study of Malcolm McNair (1958) argues that a retail structure always revolves in a circular fashion. It revolves slowly sometimes and rapidly at others, but does not stand still. A wheel of retailing begins with a conceptual innovation that generates a new type of retail institutional format. This entry phase is a stage during which new types of retailers enter the market as low-margin, low-priced, low-status merchants. They gradually increase their operating costs by providing new services and improving their facilities and market share in the trading-up phase. Over time, they enter the vulnerable phase to become high-cost merchants, experience gross margin reductions, and turn increasingly vulnerable to new competitors entering the marketplace. The wheel continues to turn and revolves to yet another retail institutional innovator (Hollander, 1960; McNair, 1958).

A more structured wheel model and a more updated and comprehensive analyses of the concept are recently provided (Brown, 1988; 1990). In these versions, the wheel of retailing resembles a circular pattern and the cycle contains three phases in a wavelike pattern. The cycle begins with a bold new concept in the entry stage and ends with the vulnerability stage with the original innovation giving way to another institutional innovation. The entry level has three distinct characteristics: offering minimal customer services; providing a modest shopping atmosphere in terms of exterior and interior facilities; and occupying low-rent locations and offering limited product mixes. The trading-up phase usually takes shape through acquiring more elaborate facilities that offer expected, exotic, as well as essential services and that are located in high-rent neighborhoods. By the end of the trading-up phase, the original innovative institution matures into a higher-status, higher-price operation with a required operating gross margin comparable to that of many established competitors. In other words, the innovative institution matures into a conservative retail institution. It enters a vulnerability phase because of its top-heaviness, conservatism, and a decline in the rate of return on investments.

The wheel of retailing consists of four hypotheses (Goldman, 1978). First, institutional innovations in retailing penetrate the system on the basis of price appeal. Second, the lower prices characterizing the new institution are achieved through a reduction in operating costs made possible by the elimination of store services and the lowering of store standing and quality. Third, after establishing itself in the retailing system, the new retailing institution engages in a progress of trading up. Fourth, trading up leads to new institutional innovation in retailing. The wheel of retailing is based on four basic premises. First, there are many price-sensitive shoppers willing to trade customer services, wide selections, and convenient locations for lower prices. Second, price-sensitive shoppers are often not store-loyal and are willing to switch to retailers offering lower prices. Other prestige-sensitive customers like to shop at stores with high-end strategies. Third, new institutions are frequently able to implement lower operating costs than existing institutions. Fourth, when retailers move up the wheel, they typically do so to increase sales, broaden the target market, and improve store image (Berman and Evans, 2001). The wheel of retailing suggests that established retailers should be cautious in adding services or in converting their strategy from low end to high end. Because price-conscious shoppers are not usually store-loyal, they are likely to switch to lower-priced firms. Furthermore, retailers may be eliminating the competitive advantages that have led them to profitability.

The wheel of retailing does not explain the emergence of all forms of retail institutions equally well (Hollander, 1981). Most commentators point out that the entry and trading up phase of the wheel model may not be universally applicable. However, there is conclusive evidence that the concept is generally applicable to retail development in economically developed and growing countries. The wheel of retailing theory is especially useful for showing how new retail institutional forms challenge existing retail formats. It graphically alerts the management to the real possibility that numerous short-term decisions, each of which increases expense only slightly, may add up collectively to fundamental long-term changes in merchandising strategy and a new competitive threat at the bottom as former marketplace niches are abandoned without serious forethought. Experienced strategic planners in retailing have taken a lesson from the wheel hypothesis and have either slowed down the cycle or found ways to take advantage of it.

The theory of the wheel of retailing has been used to explain particular aspects of change in the United States retail structure (Brand, 1967; Hollander, 1960; Lord, 1984; Oxenfeldt, 1960) as well as to conceptualize the general evolutionary process of American retailers (Goldman, 1978). The evolution of the American department store can be understood in terms of the wheel of retailing (Entenberg, 1957; Hollander, 1960). The entry phase started with the first American department stores in the middle of the nineteenth century as an innovative retailer

with low status, low price, minimal service, poor facilities, and limited product offerings. The trading-up phase describes the established department stores in the middle of the twentieth century with elaborate facilities, essential services, higher-rent locations, higher prices and extended product offerings. Department stores already entered the vulnerability phase by the present. They are vulnerable because of their top-heaviness, large overhead, and declining return on investment. However, this model is inadequate to explain department stores that never traded up (Brown, 1990; 1991; 1995).

#### **The Retail Life Cycle**

The retail life cycle theory is developed on the basis of the concept of the product life cycle in the field of marketing (Benett and Cooper, 1984; Levitt, 1965). A new retail institutional format resembles a new product in the innovation stage. It has few competitors, rapid growth in sales but low profitability due to start-up costs (Dhalla and Yuspeh, 1976). Sales and profits rise sharply but long-run success is not yet assured. In the stage of accelerated development, both sales and profits of a retail institution exhibit rapid growth because of the economies of scale. However, competitors are likely to spot the niche and begin to encroach on this market. Overall sales may continue to go up but it rises at a much lower rate than the first two stages. Toward the end of accelerated development, cost pressures may begin to affect profits. Profit margins may have to be reduced to stimulate purchases. At the maturity stage, there are many competitors, sales growth has declined, and profitability moderates. This stage is characterized by a slowdown in total sales growth. In the decline phase, sales and profits fall, and new innovative products emerge. Maturity is brought about by saturation of the market, which in turn is caused by the high number of firms in an institutional format, competition from newer institutions, changing societal interest, and the management's inadequacies in adapting to leading larger firms. Once maturity is reached, the goal is to sustain it as long as possible and not to fall into decline. The final stage in the retail life cycle is decline, whereby industry wide sales and profits for the retail format fall off, many firms abandon the format, and newer formats attract consumers previously committed to that retailer type.

These theoretical ideas of the retail life cycle have been applied to both the level of retail institutional formats and that of individual retail firms. All of the other four models of retail institutional change perform well only at one of the two levels, whereas the life cycle model deals with both levels equally well. This contrast has received little attention in the literature, perhaps because the two levels of application have not been made explicit by retail life cycle theorists.

In the very beginning, the theory was developed to examine the level of retail institutional change. The historical institutional life cycle of five types of retail formats, including the downtown in department stores, variety stores, supermarkets, discount department stores and home improvement centers, have been charted (Davidson, Bates et al., 1976). The life cycle trend line of a retail institutional format is charted with market dominance and profitability. Market dominance can be substituted by a range of measures, e.g. sales turnover, selling space, or market share percentage of the retail formats in question (Bartels, 1981; Gist, 1971; Knee and Walters, 1985).

The life cycle of an individual retail firm, however, is charted with the variables of sales turnover volume and profitability. One of the first to extend the original concept of retail life cycle in this way was Tom Heffner's study in *Management Horizons* (Morgenstein and Strongin, 1992), which is shown in a diagram (in appendix 1.4). Conceptualized in this way, the life cycle represents a predictable series of stages that can explain, describe, and forecast the development of a retail firm. Although it may be difficult to pinpoint the exact year in which a retail firm reaches maturity, the model provides valuable help in understanding its market characteristics.

The basic version of the retail life cycle suggests that all retail institutions pass through four stages and eventually die. McGoldrick (2002) has presented a diagram of retail life cycle for many retail formats of Euro market. But a few theorists argue for the more positive view that some institutions may resurge under the right circumstances (Davidson, Sweeney et al., 1987). This view seems plausible in theory. It is possible for products to avoid the fourth stage of product life cycle and gain reincarnation? For example, some brands went from the maturity stage to a fresh period of rapid growth. However, in the reality of the business world, retail institutional formats are seldom able to raise their sales turnover, profitability, and market share again after they decline. Only individual retail firms are able to resurge. With the right management and marketing strategies, individual firms could prolong or reverse their decline even if the retail institutional format to which they belong is in general decline.

## **Advantages of the Retail Life Cycle Model**

After outlining the major theories of retail institutional change in the last section, section 3 assesses and evaluates them; and also identifies the best model for explaining and predicting institutional changes of the department store industry. The argument supports that the retail life cycle model stands out among them as the most theoretically powerful and practically useful perspective.

### **Major Weaknesses of Current Theories of Retail Institutional Change**

The first major weakness of theories of retail institutional change is that not all of them are equally good at capturing the diachronic dimension of retail institutions. The environmental approach, of which the natural selection model is a variant, focuses on the changing retail environment (Board, 1980; Hensel, 1973; Liversey and Hall, 1981), an industry's responses to opportunities and threats (May and McNair, 1977), and emergence of future retail formats (McNair and May, 1978). Both the birth and development of retailing change are explained in terms of environmental conditions. While we may grant that environmental factors are the main determinants of retail institutional changes, the model does not at all construct a sequence of stages of change that helps retail managers to monitor trends. The conflict approach to retail institutional change, of which the dialectic process model is a variant, also falls short in this aspect. It provides insights into how inter-institutional conflicts give rise to institutional innovations, but doesn't construct a stage-like theory that models the evolution of retail institutions.

The cyclical approach is most appropriate for investigating the macro and long run diachronic dimension of retail institutions. Brown (1987) states that the retail accordion, the wheel of retailing, and the retail life cycle models all belong to a category of cyclical approaches. All of them theorize on the introduction, development, maturation, and demise of retail institutions (Davidson and Smallwood, 1980; Dawson, 1979).

Cyclical theory begins with the premise that, a rhythm of change is evident in some phenomenon, and if the rhythmic nature of that change can be measured, then (a) factors underlying the change may be identified and (b) the future direction of the cycle can be anticipated or predicted (Gist, 1971).

Among the three cyclical models, the retail accordion is regarded as decidedly less powerful than the other two in modeling macro diachronic processes. By modeling the trend line exclusively with the width of merchandise assortment, the theory is too simple and narrowly focused to capture the richness and complexity of general retail structural changes.

The second and partly related major weakness of many theories of retail institutional change is their focus on explaining known past cases rather than predicting the future of all theoretically possible cases. The natural selection, dialectic process, retail accordion, and most of the other theories of retail institutional change are constructed and empirically tested primarily with historical data on retail institutions. It is seldom noticed that this is a serious handicap. They are good at explaining past phenomena, but is unproven in the forecasting of retail institutional trends. They are useful as tools of historical summary, but they do not tell us when or where the next wave of the cycle will appear. The natural selection accounts for institutional evolution as a response to random fluctuations in the environment. The dialectic process simply implies that retailers mutually adapt and develop new formats in the face of competition. Questions such as how institutional change will look like or when it will occur are not investigated at all. The accordion theory offers a very simplistic view of institutional evolution. It is essentially descriptive. It does not explicitly identify the causes of cyclical change; it simply points out symptoms in the cycle.

### **Weaknesses of the Wheel of Retailing Model**

The wheel of retailing and the retail life cycle model dominate the current scholarship on retail institutional change. We find the wheel of retailing models less attractive because it has a number of serious weaknesses. It is more equipped to deal with an individual retail firm than a retail institutional format. In contrast to the model's description, not all retail institutional formats begin as low-margin outlets with few services. For example, department stores, suburban shopping centers, and vending machines do not follow this pattern. Moreover, some types of retailers never trade up. These counter-examples suggest that the model does not describe the most common retail institutional change patterns in industrialized economies (Hollander, 1960). The model's focus on changing cost and gross margin relationships as the key to understanding evolutionary retail behavior also seriously limits the model

and renders it inapplicable to the evolutionary behavior of newer, less price-oriented retail innovations (Markin and Duncan, 1981).

Savitt (1984; 1988) is not convinced that the wheel theories are as important as current marketing scholars render it. He thinks that no current studies provide strong historical evidence to support the elements of the model. Brown (1990) contends that the model may be salvageable but needs to be tested more often with empirical evidence. However, the lack of historic empirical data is a great obstacle to his proposal.

The wheel of retailing model is exposed to especially harsh criticisms since the concept's uses for practical business decisions are limited and undeveloped. Similarly, Markin and Duncan (1981) states that the wheel of retailing, and life cycle frameworks are lacking empirical evidence to support them. They even conclude that it is 'a questionable theory of institutional change'. The wheel of retailing theory is especially critical since it has not undertaken an analysis of concept validity for its use in the circumstance (Zaltman, LeMaster et al., 1982). The wheel of retailing theory fails to meet the criteria as a formal theory (Hirschman and Stampfl, 1980). There is a general criticism of the wheel that some types of retailers never trade up. Some institutions don't begin as low-price and low-service entrants, for example a high fashion boutique. The model tells us nothing about profitability and market share. The changing character of retail innovation and the acceleration of innovative retail activities pressure us to learn about the pace with which retail innovations rise and fall. But the theory is never equipped to explain the rise and fall of particular retail formats. The theory introduces the concept of a cycle, but then shifts its focus to pricing, merchandising, services, and operations. These are abstract qualitative elements that are hard to measure. In contrast, the retail life cycle measures sales turnover and profitability, data that are measurable, easily obtainable, and quantitative.

#### **Practical Benefits of the Retail Life Cycle Model**

The Retail Life Cycle model is the most powerful tool for understanding the rise and fall of retail institutions. It provides a useful perspective to predict the business performance of retail institutions because it specifies the series of stages that every major retail format has to go through. It specifies a series of stages that explain, describe, and forecast the life cycle of an institution (Davidson, Doody et al., 1975). In contrast to other theories of retail institutional change, it squarely addresses the question of the pace at which change occurs. Other theories have no basis for appraising and forecasting potential future developments. Only the retail life cycle theory is sensitive to the acceleration of innovative retail activities in recent decades.

The main criticism of the retail life cycle model is that the dating of the life cycle of a particular institution is extremely difficult (Markin and Duncan, 1981). It is difficult to specify the exact year that a stage ends and another begins (Hollander, 1981). However, the argument is that if we have adequate time series market data, we may be able to identify the trend line. Relevant market data are usually confusing: different firms belonging to the same institutional classification reach maturity at different times, trends in geographic regions differ significantly, and many individual firms run counter to the predominant trend.

Despite this difficulty, the explanatory power of the retail life cycle theory is demonstrated in its application to the historical evolution of the department store industry. This example suggests that if we have adequate historical data, dating of the life cycle can be carried out. Davidson, Bates et al. (1976) has also identified the institutional life cycle for five types of retail formats on the basis of data from the National Bureau of Economic Research, US Department of Commerce. The problem of dating the stages is in fact a problem with data rather than an inherent problem in the model.

The life cycle model does not only represent an alternative way to theoretically conceptualize retail changes, it is also practically valuable for enabling retail managers to anticipate the stage of life cycle their institutions are in and to implement appropriate strategies accordingly. The management should emphasize research, stay flexible, analyze risks and profits, and attempt to extend the maturity stage. The institutional life cycle is a natural evolutionary process that is very difficult to control or counteract. What the management can do is to plan more effectively and continuously revise their operations.

This is particularly important for periods such as the volatile 1980s, during which the decline stage can no longer be readily avoided. The decline stage may be avoided in some cases (Knee and Walters, 1985). A possible route to postponing institutional death is to have enough insight and courage to transform their dying retail institutions into a new effective synthesis format rather than waiting to be outperformed by a new competitor

(Davidson, Sweeney et al., 1987). The concept of retail life cycle was usually applied to a macro interpretation of retail institutional formats, but it can be and is increasingly applied to study individual retail companies. The life cycle concepts can be extremely useful for rationalizing an otherwise unfocused set of conditions being experienced by a type of retail institution, a firm, a product, or a merchandise classification. The life cycle concept is helpful in formulating growth, renewal, and repositioning strategies, in market analysis, in sales forecasting, in capital allocation, in store location decisions, in consumer communications, and in all elements of the retail marketing mix (Davidson and Smallwood, 1980).

## **The Department Store and its Historical Development in Terms of the Retail Life Cycle Model**

The understanding of the department store is surely important in itself. It emerged in the nineteenth century and has established itself as the major retail institution over the middle decades of the twentieth century. It played a crucial role in propelling retailing from its traditional forms into its modern phase. At the same time, because of its ability to generate employment as well as its significance to overall economic development, its evolution is recognized as an important indicator of the dynamics of the economy. For instance, the Economic Development Administration of the United States Department of Commerce sponsored a large project to study the American department store industry (Bluestone, Hanna, et al., 1981).

### **The Department Store as a Retail Institutional Format**

The concept and definition of retailing has evolved over the years. Retailing was defined as the activities involved in the sale of goods to ultimate consumers (Duncan and Hollander, 1977). A more contemporary definition is that “retailing consists of the business activities involved in selling goods and services to consumers for their personal, family, or household use” (Berman and Evan, 2001).

Retailing can be approached from a variety of perspectives and a major one among them is to classify different types of retail institutional formats. The concept ‘institution’ is only loosely defined in the scholarship on retailing. What it refers to ranges from individual firms or groups of companies to forms of retail organization, and even national retail systems. The most common references of the concept are distinctive retail formats, however. Several types of retail formats are recognized in the literature. They include department stores, supermarkets, specialty stores, discount stores, hypermarket, mail-order companies, kiosks, and flea market stalls (Diamond and Pintel, 1996). Classifying retailers by their retail formats is useful though it is mainly descriptive.

### **Decline of the Department Store Industry**

In recent decades the department store industry has experienced a decline in the West. It has been shown that the discount department store and the downtown department store of the United States have reached their maturity (Davidson, Bates et al., 1976). Although some of them are still prospering, studies show that the overall trend is toward decline and replacement by other retail formats (Rogers, 1991). In England, department stores suffered a slow but steady decline from 1933 to 1988, closure exceeding new entrants (Willians, 1996). In Germany, department stores have traditionally been the front-runners in the retail industry. But the department store groups suffered setbacks and failed to produce successful strategy to cope with the changing social circumstance (Coles, 1999; Dickson, 1979). The Statistical Office in the European Communities provides comprehensive secondary data of retail industries to show that the department store industry in these countries has reached its maturity (Eurostat, 1993). In Singapore, department stores intensely competed against one another during the last decade and this competition resulted in declining performance (Chong, 1996).

## **Application of the Retail Life Cycle Model to the Department Store Industry in Hong Kong**

The department store seems to be reaching its maturity and decline stage all over the world. Is the department store industry in Hong Kong following a similar pattern of decline? To date this question has received little attention in the retail literature (Sun, 2002; 2003). Below has sketched the historical and economic conditions of Hong Kong to provide a backdrop to the evolution of its department store industry (Sun, 2000; 2001). Originally a traditional Chinese fishing village, Hong Kong became a British colony in 1898. There were only a few department stores at the time. Lane Crawford was established at 1850. The two earliest department stores founded by the Chinese, Sincere and Wing On, were established in 1900 and 1907 respectively. They had store outlets in Shanghai and Guangzhou respectively during the 1910s. Chan explores the beginnings of Hong Kong's department stores, documenting the activities of Sincere and Wing On in Shanghai and Hong Kong between 1900 and 1941 (Chan, 1996).

Since Hong Kong did not start to industrialize until the 1950s, most of the retail businesses before the recent decades were small-scale family-run operations. Retailers set up their store in the front of a building and lived behind the stores. Retail businesses began to develop with the rapidly growing population in Hong Kong and their increasing demand for consumer goods (Simmons and Chan, 1992; Sun, 2000). Daimaru opened the first Japanese department store in Causeway Bay on Hong Kong Island in 1960. Another local department store, Shui Hing, started its business in 1961. Hong Kong experienced rapid economic growth from the 1970s to the 1990s and this period further fueled the emergence of new retail formats. At the same time, Hong Kong became a global city and attracted the investment of many Japanese department store companies. Isetan entered Hong Kong in 1973 and Matsuzakaya followed in 1974 (Veitch, 1990). The Ocean Terminal shopping center was the first major mall to be built in Hong Kong and became very successful. Supermarket retailers also emerged. As foreign investment poured into the Hong Kong retail industry, retail ownership shifted from family run businesses to large-scale enterprises in the 1980s. Additional Japanese department store companies landed in Hong Kong in the decade, including Mitsukoshi, Sogo, UNY, Seibu, Jusco and Yaohan (Sun, 2000). Joint ventures such as that between Wing On and Seiyu also arise (Wong, 1998). The rise of department stores in Hong Kong was discussed (Ho, 1990; Phillips, Sternquist, et al., 1992). They list the major fifteen department store groups in Hong Kong from 1850 to the early 1990s, and summarize their market information in Hong Kong.

But the decline of the industry has not been as well understood as its rise. Sun (2001) shows that Hong Kong has less than twenty department store chains in the city's history. Two department store groups (Shui Hing and Yaohan) are closed down in the late 1990s. Many Japanese department stores (Isetan of Japan Ltd., Yaohan International Group, Daimaru Department Store Co. Ltd., Matsuzakaya Enterprises Co. Ltd., and Tokyu Department Store Co. Ltd.) retreated out of Hong Kong. Four Japanese department stores (Daimaru, Isetan, Matsuzakaya, and Tokyu) retreated out of Hong Kong in the economic downturn following 1997. The general retail consumption indicators for both tourists and locals kept falling throughout the past several years. An overall fall in demand softened retail sales and department stores suffered reduced sales turnover. Many retailers were forced to cut prices in order to reduce their inventory. The French hypermarket Carrefour opened its store in 1997 but had to leave Hong Kong in 2000. One of the winners in these years are supermarkets, which took the opportunity of others' decline to open more outlets and expand their business (Sun, 2001).

It can tentatively conclude that the department store industry developed rapidly in Hong Kong between the 1970s and 1990s, and have been declining since the late 1990s. The claim of their decline is based on a crucial observation: the number of department stores that were closing down exceeds those that were entering the market. The situation indicates a mature market condition. It is not satisfactory to simply infer this from a general narrative however, and an analysis of the empirical indicators described above is required.

## Conclusion

This study has reviewed and evaluated five major theories of retail institutional change. We argue that the retail life cycle model is the most powerful one for explaining and predicting institutional evolution. The retail life cycle model explains retail institutional change through specifying four stages of evolution that retail formats tend to go through. It avoids many of the theoretical shortcomings that are evident in other major models of retail institutional change. Because of its specification of stages and capacity to predict, it also has great practical value for business strategy formation.

The model has been corroborated by data on the historical evolution of the department store industry. Besides helping to evaluate theories of retail institutional change, the analysis of the evolution of the department store suggests that general economic conditions are highly relevant to retail formats. Rapid economic growth creates a favorable environment for the department store, while economic stagnation negatively affects it. An explanation is that the department store is a relatively inflexible retail format. It requires bigger investment than specialty stores, for example. More research needs to be done before we can decide whether this hypothesis is true.

Following from the previous analyses, three important research questions regarding Hong Kong's department store industry may be formulated for further investigation.

1. Previous studies suggest the department store industry has in many countries reached the maturity and decline stages. Are Hong Kong department stores following the same pattern?
2. If so, what kinds of factors brought about this state of the department store industry Hong Kong?
3. Are there any actions that retail management in Hong Kong can carry out to ameliorate the decline or to make use of it for new developments?

The above three research questions are investigated in further research work (Sun, 2004).

## References

Contact the Author for a list of references.

## End Notes

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<sup>i</sup> It is possible to argue that the theories of retail institutional change do not really meet the formal criteria for 'theory' (Hunt, 1976). Indeed, these theories have been variously described as models, hypotheses, conceptualizations, paradigms and generalizations. Nonetheless, this problem is moot for the purposes of this study. Moreover, the 'theory' descriptor seems to be staying in the scholarship of retailing (Berman and Evans, 2001; Brown, 1987; Brown, 1988; Levy and Weitz, 1998).

# Management of Uncertainty in Tourism Development

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## Abstract

**This paper investigates the dependency of tourism development on institutional, policy, economic, and other factors of development and uncertainties within the historical time-series perspective for Slovenia as a case study. We analyze determinants of tourist supply and tourist demands, patterns in the structure of tourist demands for a tourist destination places and in the average number of overnight stays, and the seasonality in the structure of tourist arrivals. The long term stability and economic growth and thus long term increasing tourist demand induces incentives for tourism supply to respond to more favorable market signals by investment activities to increase capacities and/or to improve the quality of accommodation and services. The most recent developments in tourist markets suggest opportunities for greater cooperation in regional tourism marketing and in cross-border development of tourist resorts, products, and destinations.**

## Introduction

The literature on the role of tourism in economic development considers different economic benefits associated with tourism development. Tourism as a part of the economy is one of important sources of income growth and employment creation, positive induced externalities or external multiplicative effects, foreign exchange earnings, investments activities, government revenues and greater integration into the global economy (Gray, 1970; Lea, 1988; Bull, 1995). On the other side, tourism is a fragile business, which may vary seasonally in response to a combination of demand and supply factors, particular climatic conditions, and internal and external factors of uncertainty. Among a range of uncertainties in tourism development, besides seasonal character of tourists demands and climatic conditions hindering tourist supply, there are those factors associated with the international political and economic factors, historical economic and political relations. Relatively high capital intensity of the tourist economy and its seasonal character in capacity utilization and employment induce costs burdens reducing business efficiency. In several countries the demand and the supply structure of tourism are unsustainable over the year. To reduce the negative externalities deriving from seasonality and uncertainties in tourism, the most recent approaches emphasize the importance of segmentation, changes and diversification in tourist types and innovative approaches in tourist products development over time as important factors for sustainable tourism and regional development (Brohman, 1996; Clarke, 1997).

The economic recession in the world leading economies (e.g. Germany), animal and human diseases, security, political and some other influences have been the key factors that have determined development patterns in tourism during the post-2000 (Cabrini, 2004). The downward deviations in the number of tourist arrivals and in the tourism receipts have been largely associated with global, regional and local economy factors; political, social and safety factors; diseases and other unpredicted factors.

The role of the state with the globalization process is diminishing, while firms and tourist destinations competitiveness gain in importance. With multinational corporations and foreign direct investments (FDIs) outward-oriented development strategies considering both domestic and international tourism development are gaining in importance towards future-oriented comparative advantage and tourism destination competitiveness (Crouch and Ritchie, 1999; Dwyer et al., 2000; Enright and Newton, 2004).

Seasonal variations in tourism demand and seasonal variations in the performance of tourism supply are reflected in relatively high fixed costs, seasonal tourism jobs and an insecure income for the employees (Butler, 1994; Frechtling, 1996). The tourism accommodation sector is particularly burdened with relatively high fixed costs, which in association with pronounced seasonality is regarded as an important economic issue influencing efficiency in this sector. Low variability in occupancy performance, an extended main season, and a higher occupancy level are

often regarded as desirable goals and as a major strategic economic issue challenging the structure of the supply-side factors providing an innovative perspective on sector performance-based segmentation improving patterns in occupancy rates (Koenig and Bischoff, 2004).

Of course, there are several examples and case studies of country's specific factors that suddenly caused uncertainty and the impact on the travel and tourism industry of this specific country as well as broadly on regional tourist destinations. For example, Goodrich (2002) analyzed the September 11, 2001 attack on America to evaluate the impacts and reactions in the USA travel and tourism industry, while Okumus et al. (2005) analyzed the impact of Turkey's economic crisis of February 2001 on the tourism industry in Northern Cyprus.

Slovenia similar as most other former communist countries has experienced political, institutional and economic changes, restructuring and transition to a market economy. While the nature, processes, restructuring and impacts of political, institutional and economic transition have been widely analyzed, the uncertainties and changing patterns in tourism as an element these wider processes of restructuring and transition have taken much less attention and academic interests. Tourism is an element of the overall economic development, which is also influenced by economic, political, institutional and social restructuring (Hall, 1995). The specific threats to tourism development represented institutional and policy limitations for tourism development during the central planning in the post second World-War period, while more recently the political instability and the wars in the region after the collapsed of the former Yugoslavia with the implications for tourism development during the privatization and restructuring of hotel accommodations and other tourist infrastructure.

We focus on the evolution and structural changes in tourist markets in Slovenia, emerging trends in arrivals of foreign tourists and receipts, and on the main characteristics and challenges for tourism development. More specifically, in this paper we investigate main uncertainties and associated risks in tourism development in Slovenia. Besides seasonality in tourism demands and supplies, our focus is on medium- and long-term developments in association with political, institutional and some other factors, which caused considerable demand shifts and the supply responses in diversification of tourist markets and tourist products in Slovenia. Similar as for other ex-socialist countries, political and institutional factors and their radical changes over time are important as they were enforcing considerable changes in macro- and micro-economic environments. Yet, political and institutional factors were evening in certain periods preventing or limiting the tourist sector development, particularly international tourism. To tackle this medium- and long-term developments and structural changes in it, we analyze both domestic and foreign tourism development as potentially their might be some similar, but also diverging development patterns as different driving forces of the tourist demand associated with different policy and institutional constraints and their changes in different time periods. It is expected that during political instabilities, domestic tourist arrivals and overnight stays might have prevailed, while foreign tourists may regain under political and institutional deregulation and economic and political stability. Therefore, the tourism growth is dependent on the economic, sociopolitical, institutional, and other restructuring and transitional factors. The long term economic and political stability is likely to encourage increasing tourist demands, which induce incentives for tourism supply to respond on favorable market signals by investment activities to increase capacities, but also to improve quality and price competitiveness.

In the next section, we present an institutional appraisal of tourism development in Slovenia and the significance of factors of risks and uncertainty during different stages of tourism development in Slovenia. In the third section we present the empirical evidence on tourist supply developments, patterns and the structure of tourist demands for tourist destination places, and the seasonality as an important challenge to reduce it in the Slovenian tourist markets. The final section concludes with management of uncertainty in tourism development and policy implications.

## **An Institutional Background on Tourism Development in Slovenia**

The tourism economy in Slovenia has relatively a long tradition. Due to geographical and historical proximity to most developed parts in Europe, particularly the northern part of Italy and Austria, some similar trends in tourism development at the end of the 19<sup>th</sup> century and prior the Second World War were being observed on the present territory of Slovenia as in some other most developed European tourist destinations (Planina and Mihalic, 2002).

Similar to most other European countries, the progress in tourism development was halted by the Second World War. However, immediately after the Second World War, with the iron curtains, which divided Europe on two parts, most Central and Eastern European (CEE) countries faced considerable negative implications for the private sector and tourism development associated with enforced institutional and policy changes by the Communist governments. Several strict institutional and legal constraints on tourism development were later being gradually relaxed within the previous economic system. With transition to a market economy since 1989 and with the membership in EU, Slovenia as well as other CEE countries have been largely adjusted and harmonized their institutional basis with the EU countries. Therefore, considering the institutional background on tourism development in Slovenia, we can distinguish more stages in tourism development.

During the pre-Second World War period, similar as in other economy sectors and similar to developments in Central Europe, tourism economy was emerging as private family business. Besides inns, there were set-up family run hotels and overnight accommodations. This was also a period of emerging of the first tourist destinations, which were at that time focusing on natural attractions of Bled's lake, the sea resorts of Portorož, the spa resorts of Rogaška Slatina and Laško, several cultural and historical attractions of towns and rural areas.

The nature and evolution of the tourist sector during the immediate state socialist post-Second World War period was influenced by the communist ideology. Similar to other socialist countries (e.g. Light and Dumbrăveanu, 1999, for Romania), there was little interest in developing tourism, particularly international one. The importance of tourism in the economy in terms of the number of tourists and the number of overnight stays considerably declined immediately after the Second World War. The changed political ideology and of the political system, the introduction of the centrally planned economy, and the post Second World War political and military division of Europe are among the crucial factors, which negatively influenced on tourism development. The foreign tourist arrivals and international tourist overnight stays almost disappeared. In 1948, in Slovenia were registered only 228.000 tourists and tourist receipts amounted to 150.000 US\$, which was around one-tenth of that before the war (Planina and Mihalic, 2002). Consistently with the forced centrally planned economy, the tourism sector during that time played so called "non-economic functions" providing some tourism activities, which were largely covered by common or social funds.

The first initial relaxation of the centrally planned rules began in the 1950s when some tourist organizations in Slovenia are reestablished. Among them was the Slovenian Tourist Board in 1952. At the same time these more open policy changes for that time positively contributed to tourism growth. With a shift in foreign policy of the former Yugoslavia towards a West-ward-looking policy, openness with cultural and academic life, and a shift in internal policy measures to allow small-scale private craft enterprise development, these changes in foreign policy, macroeconomic, institutional and policy environment were reflected in tourism development also towards foreign tourists. In 1958 the number of foreign tourist overnight stays for the first time exceeded the level before the Second World War. Slovenia within the former Yugoslavia was an accessible and relatively inexpensive tourist destination for Western Europeans from the neighboring countries (e.g. Italy and Austria) and from the region (e.g. Western Germany) as border formalities were relaxed and visas easily obtainable.

The most considerable liberalization shift from non-economic tourism functions towards encouragement of economic tourism functions within the previous socialist system occurred in the mid-1960s with the economic and political reform of 1965. The induced economic and political deregulations within the socialist self-managed system, the former Yugoslavia at that time opened the borders towards the West. Among considerable changes, this offered incentives to encourage arrivals of Western European tourists to Slovenia as well as to the other former Yugoslav tourist destinations (particularly in Croatia) during the main season as well as out of the main season. During the approximately the same time, unlike to any other ex-socialist country, the former Yugoslavia permitted own labor force employment in the Western Europe. While the labor migration flows were being particularly directed towards the German speaking countries such as the Western Germany, Austria and Switzerland, among tourist arrivals to the former Yugoslavia, including to Slovenia at that time, were tourists also from some other Western European countries, particularly from the neighboring Italy. During the 1960s and 1970s Slovenia as well as some other parts in the former Yugoslavia made substantial investments in hotel accommodations and other tourism infrastructure, mostly on the Adriatic coast and in spa tourism around the former Yugoslavia. During this an intensive investment period in tourist destination development, the hotel and similar basic tourist capacities increased considerably.

These deregulation policies contributed to the changing structures in tourist demands, which become driven by both domestic and international tourists. Domestic tourists were encouraged to travel on holidays to the Adriatic coasts during the former Yugoslavia. The socially owned enterprises and other state organizations, and the state budget itself supported social tourism. Similar to some other socialist countries (e.g. Light and Dumbrăveanu, 1999, for Romania), trade unions within enterprises and other organizations arranged for families of their employees' low-cost holidays to the Adriatic Sea, then to spa and mountain resorts. Educational trips were also promoted for school children. Since the introduction of the deregulation policies for foreign tourists up to 1988, the year in which the tourist markets achieved the peak within the former Yugoslavia, the former Yugoslavia, became a popular tourist destination particular for tourists from the Western Europe. The role of international tourism for economic growth and development was strengthened with the balance of payments problems and associated large foreign debt of the former Yugoslavia. The shortage of foreign exchange for the necessary imports and the black market of foreign exchange provided a specific situation in the country. The tourism sector was foreseen as an economic opportunity for non-merchandise inflow of foreign exchange, particularly from international tourism. In this regards, investment activities in development of secondary tourist infrastructure and superstructure have been intensified particularly since 1967. Since then, the tourist economy has become an important service activity in the economy that positively contributed to overall economic and regional development. The foreign tourists were largely accommodated in hotels, camps and similar organized tourist accommodation facilities, which were largely in socially owned ownership. Both for domestic and even foreign tourists there existed also the opportunities for independent tourists to be accommodated in private tourist accommodations. This practice at that time was different from most other ex-socialist countries where were contacts between residents and foreign tourists largely forbidden or rather limited and controlled (see for example Light and Dumbrăveanu, 1999, for Romania during the mid 1970s). More an open ideology rather than an isolationist ideology and measures continued in order to comply with requirements set by international institutions regarding the foreign debt management. These more open policies towards the West brought some advantages from joint ventures with Western enterprises, then was important for remittances from workers abroad, and particularly was important for inflow of foreign exchange from international tourist arrivals and the receipts from their overnight stays and spending during their holidays and other trips.

After the Tito's death in 1980, the president of the former communist Yugoslavia between 1945 and 1980, the economic difficulties of the country arising from a previous inefficient development policy based on import substitution strategy of development with a large foreign debt of the former Yugoslavia became suddenly openly visible. Due to the faced external liquidity problems, investment activities were reduced substantially. The open sign of the shortage of foreign exchange and an inability to pay off Yugoslav's foreign debt was possible to notice in rationing of households consumption for fuel and some other detergents, coffee and some other consumer goods. In spite of this economic difficulties and associated uncertainties in the tourist markets in the former Yugoslavia, the tourism economy during the 1980s, unlike to Romania, but similar to Bulgaria and Hungary, was still booming. The peaks in the tourist markets in Slovenia were achieved in 1988. The positive results in Slovenian tourism were particularly achieved through rather efficient management uncertainty thanks also to the geographical proximity to the Western Europe, where most tourists were coming from (Italy, Germany and Austria). Standards of accommodation and service continued to be at the level expected by Western tourists.

The rapid decline in foreign tourist arrivals occurred at the end of the 1980s and the early 1990s when the former Yugoslavia experienced macroeconomic instabilities with output and employment declines associated with high inflation, which accelerated into hyperinflation, an increased open unemployment, political and nationalistic movements in the multi ethnic former Yugoslav republics. Prior to and immediately after the collapsed of the former Yugoslavia, most of the territory of the former Yugoslavia experienced deep economic and severe political crisis, which in some parts accelerated into the civil war. While the war in Slovenia at the end of June and beginning of July 1991 did not have considerable direct destruction impacts, the bad image occurred at that time for the former Yugoslav tourist destinations. International tourism arrivals and overnight stays in Slovenia and even more in the rest of the former Yugoslavia were in decline at the end of the 1980s and the early 1990s. Among major determinants, which negatively influenced foreign tourist arrivals and overnight stays are the political and economic instabilities in the former Yugoslavia. The last former Yugoslav government tried to resolve difficult political and economic situation with the big bang macro-economic stabilization program introduced, similar as in Poland, on 1

January 1990. After initial institutional and macroeconomic reform successes, the macroeconomic stabilization program in the second half of 1990 failed, and the former Yugoslavia again experienced macroeconomic and even more severe political instabilities that accelerated in national movements and hostilities.

After the successful exit from the former Yugoslavia in 1991, Slovenia was rather successful in stabilizing its economy, which also contributed to an increase in political stability. However, the recovery in international tourist arrivals, overnight stays, and receipts have arrived with time lag suggesting that tourism is a business, which is very sensitive on different difficulties, and erratic situations, which are facing tourist destinations. The process of the Slovenian independence was also marked with transition from socialist self-managed system to a market economy. In spite of economic and political stability in Slovenia during the post-independence period, Slovenia as the new independent country and tourist destination was still largely unknown internationally and often mixed with some other countries such as Slovakia. Geographical proximity to the unstable Balkan region and a lack of international image of safe and a nice tourist destination negatively caused particularly the international tourist arrivals in the first post-independence years.

During the second half of the 1990s, Slovenia was in a process of adjustments its economy towards the EU membership. This has induced new challenges, including for the Slovenian tourist economy in promoting its natural, cultural and other tourist attraction. The country's successes in the economic, political, cultural, sport and other activities established an image of a stable and successful country that is worth to visit, which since the end of the 1990s contributed to the recovery in international tourist arrivals and their overnight stays with also improved inflows of international tourist receipts.

On 1 May 2005 Slovenia became the member of the EU. The Slovenian membership in the EU is expected to be beneficial for the tourist economy. The image of Slovenia as the EU member with adjusted and harmonized economy with the EU principles has improved. The deregulation of service markets is also to have positive impacts on the recovery in foreign tourist arrivals as the first low-cost carrier "EasyJet" has started with operation bringing several new tourists to Slovenia since the end of April 2004. Besides demand gains, there are also expected tourist supply gains from greater entrepreneurial spirits and new investments with sources of finance. Domestic investors and/or foreign direct investments can finance this. Yet, tourist projects as well as other economic business projects can be co-financed (particularly in less developed areas) by EU structural, regional, rural and cohesion funds. Since May 2005, three important tourist projects in the spa tourism and natural cave tourism and destination development have already been included as successful. Tourism should play also more important role in tourism-environment and sustainable-tourism development.

Finally, it is worth to mention, that Slovenia records greater receipts from international tourism than expenses (Bank of Slovenia, 2005). The surplus from tourism services is recorded for each of the Slovenian post-independence year, when the receipts from the international tourism increased particularly with the recovery in the foreign tourist arrivals and overnight stays after 1997. On the other hand, the increases in Slovenian tourist expenses abroad have also increased, but they have amounted a bit more than half of international tourist receipts. During the most recent years, the surplus from international tourist receipts amounted more than a half billion US\$. The most recent evidence indicates both the increases in international tourism receipts caused by the recovery of international tourist arrivals to Slovenia and an increase in Slovenian international tourist expenses abroad as there are now several new opportunities to travel abroad.

## **What Does the Empirical Evidence Tell Us?**

As already indicated, the multidisciplinary theoretical and methodological approaches are combined in this empirical part of the paper. We combine the previously explained institutional and policy developments in the historical perspective with the time-series statistical data analysis. Slovenia similar to most other CEE countries has experienced the changing patterns in tourist markets caused by the changes in institutional and political factors inducing adjustments in demands and supply factors (Bojnec, 2004). The economic and political instabilities within the former Yugoslavia led to instabilities in the tourist markets, which experienced considerable decline in foreign tourist arrivals and overnight stays before and immediately after the Slovenian independence 1991. Since 1997 the

Slovenian international tourist arrivals has recovered thanks to political and economic stability in Slovenia as well as in the broader Central and Southeastern European region. Similar to other countries, which entered into the EU on 1 May 2004, Slovenia expects growth in inbound and outbound tourist flows. Yet, tourist development may gain from EU structural policies and business activities including FDI and cross-border cooperation and partnerships in the tourist economy. This empirical part is divided in four subheadings to address development patterns based on the empirical evidence in more detail. First, we analyze the evidence on the Slovenian tourist supply developments using the available evidence on tourist rooms and tourist beds since the end of the 1950s. Second, we analyze Slovenian tourist demands using empirical evidence on tourist arrivals and overnight stays. Third, we analyze the structure and patterns in development of tourist demands according to the statistical division of tourist places in Slovenia: the capital of Slovenia, health resorts, seaside resorts, mountain resorts, others tourist places. Fourth, we analyze the seasonality in the Slovenian tourist markets as an uncertainty in tourist markets within a certain year. Therefore, besides annual and potential cyclical changes in the Slovenian tourists markets (tourism supply and tourism demands), we analyze main trend lines, which allows us to derive conclusions on the long-term patterns or average annual rates of growths and the disturbances from the main trend line over individual years, which are associated with policy, institutional and some other radical changes in environment for development in tourist markets. Yet, with analyze also seasonal oscillations within a year, a fact, which may reduce economic efficiency of tourist enterprises.

#### **Empirical Evidence on Tourist Supply Developments in Slovenia**

Tourist supply around the world is applying different diversification and innovative approaches to become more flexible to adapt towards demands, and to generate new products and induce multiplicative effects. This holds also for CEE countries (e.g. Hall, 1995). The tourist economy in several CEE countries have been restructured and adjusted towards emerging new tourist markets (e.g. Bachvarov, 1997, for Bulgaria; Light and Dumbraveanu, 1999, for Romania; Johnson, 1995, for the Czech and Slovak Republics; Baláz, 1995, for Slovakia; and Johnson, 1997, for Hungary). Our focus is on shifts in tourist supply developments in Slovenia.

As Fig. 1 indicates, during the period 1960-2003 tourist beds and tourist rooms in Slovenia explored upward long term tendency of an increase with cyclical oscillations. The number of tourist beds has increased a bit faster. Their rapid increase is observed at the end of the 1960s, the fact, which is consistent with institutional and policy changes, which induced investments in development of tourist destinations. The second peak in the number of tourist beds is observed in the second half of the 1980, which is again consistent with the efforts to restructure tourist supplies towards demands for different niche markets. Finally, at the beginning of the 1990s, with institutional changes, which introduced transformation, restructuring and privatization of socially owned enterprises some former tourist capacities are excluded and not anymore used for tourism, which is reflected in the decline in the number of tourist rooms and tourist beds.

The environmentally sensitive mass tourism during the 1970s has led to tourism concentration and dispersal. Tourism concentration into integrated resort and destination development aims to minimize the harmful environmental impacts and the negative externalities of tourism development. Tourism dispersal aims to develop new tourist destinations in different recreational areas, but at the same time trying to minimize the negative environmental and cultural impacts of mass tourism in both urban and rural areas.

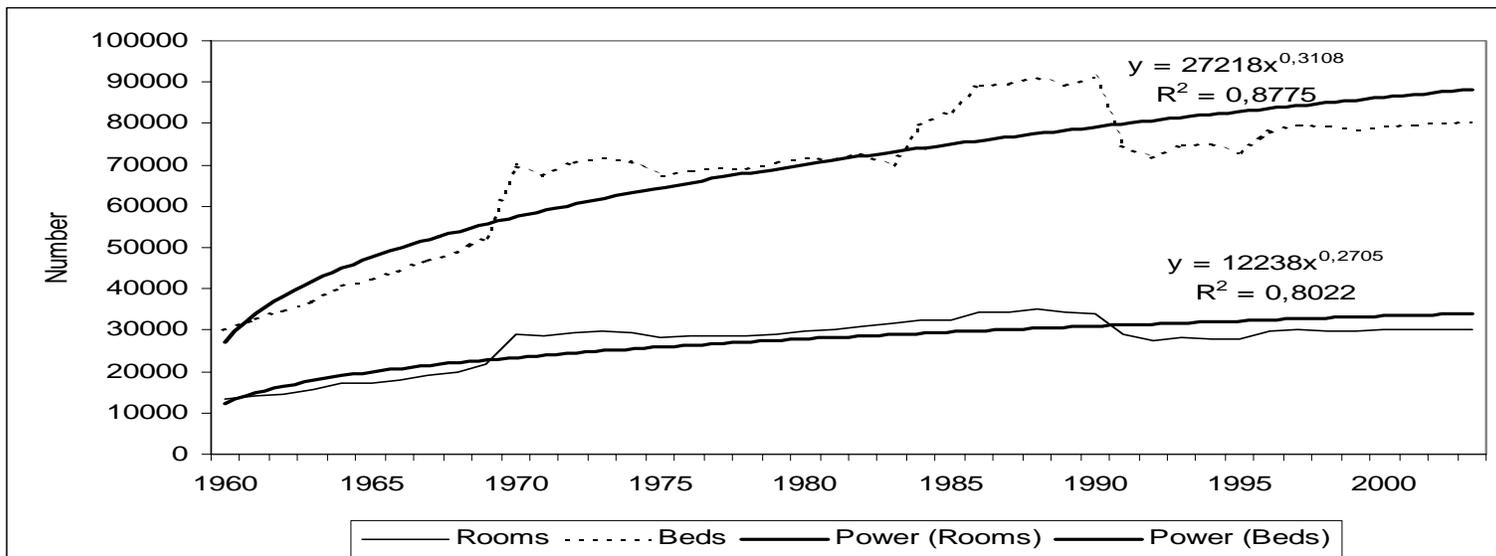


FIG. 1: TOURIST ROOMS AND TOURIST BEDS IN SLOVENIA, 1960-2003.  
Source: Own chart on the basis of data from the Statistical Office of the Republic of Slovenia (2004).

#### Empirical Evidence on Patterns in Tourist Demands in Slovenia

Traditional tourism demand functions include real income, price of product, prices of complementary goods and/or substitutes, and other economic and non-economic determinants (e.g. Gunadhi and Boey, 1986; Witt and Martin, 1987; Crouch, 1994). Tourism demand is positively associated with real income growth and real prices of substitutive tourist destinations, while negatively with real price of the tourist product and real price of complementary products. Main consumer profiles and preferences may differ over time, across household income clusters and countries, and tourist products (e.g. Durbarry and Sinclair, 2003). Among most recent changes in consumer preferences are greater associations of tourist demands with low-cost airlines towards diversified and new locations, Internet booking, and associated travel benefits.

As Fig. 2 presents, tourist demands in Slovenia in terms of tourist arrivals and overnight stays increased. During the analyzed period 1949-2003, there are clearly shown four significant sub-periods, which are consistent with institutional and policy changes and associated uncertainties in tourist demands. First, immediately after the Second World War up to 1956, tourist demands were at absolutely low level, the level less than prior to the Second World War. After 1956 up to 1986, there is a rapid, but a slightly cyclical increase in both in tourist arrivals and particularly overnight stays, suggesting that the average overnight stay per tourist increased (see also Fig. 4). The number of tourists explored a rapid growth particularly during the 1970s and with some instability during the 1980s it picked in 1986. This is consistent with the rapid increase in a massive, holiday's tourism. With the economic and political crisis in the former Yugoslavia during the second half of the 1980s and at the beginning of the 1990s, tourist demands rapidly declined. The evidence indicate a considerable decline in Slovenian tourist overnight stays, which declined from more than 9.2 million overnight stays in 1986 to less than 4.9 million overnight stays in 1991. This reduction in overnight stays is particularly determined by the implication of the collapsed of the former Yugoslavia, when Slovenia occurred as an independent state, then a lack of knowledge and information about Slovenian as an independent state and as the tourist destinations, and particularly due to the instabilities in the Balkan region caused by the Yugoslav wars in Croatia, Bosnia and Herzegovina and Kosovo.

The most recent bottom in the tourist overnight stays is clearly illustrated in 1991, when it amounted a bit more than a half of that in 1986. In 1991 Slovenia declared independence from the former Yugoslavia. Due to a short military intervention by the former Yugoslav army, during the time when the summer tourist's season began,

this short war caused negative consequences both on international tourist arrivals and their overnight stays. The decline in tourist arrivals continued in 1992, while since then overnight tourist stays have recovered. The recovery in tourist demands has continued during the post-Slovenian independence since 1991, and since 1997, the recovery is recorded for international tourists arrivals and their overnight stays. In 2004, they are further speed up by the liberalization of civil aviation transport and entering low-cost carriers into the Slovenian market making traveling by plains to Slovenia much cheaply (Bojnec, 2004).

The domestic tourist arrivals represented the majority in the structure of tourist arrivals in Slovenia during the times of greater political and economic instabilities. Two main such periods are clarified. First, it was during the post-second World War period between 1945 and 1968, and second, after the Slovenian independence between 1991 and 1997. While during the former period the presence of foreign tourists was institutionally and politically limited, during the latter period it was constraint by lack of information or even wrong information regarding the safety and security in the Slovenian tourist markets. During both periods of uncertainties, domestic tourists were those who mitigating decline of foreign tourist participation in the Slovenian tourist markets. The foreign tourist arrivals and overnight stays have recovered since 1998. This is consistent with an increase in image of Slovenian tourist destinations.

In 2002, in Slovenia are recorded 2.2 million tourist arrivals and 7.3 million overnight stays: 45.1 per cent tourists from Slovenia and 54.9 per cent foreign tourists (e.g., Bojnec, 2004). More than 55 per cent of overnight stays of foreign tourists in Slovenia are from Germany, Italy and Austria. The remaining overnight stays are dispersed among larger number of countries, particularly from Croatia, the United Kingdom (UK), the Netherlands and to a lesser extent from Belgium, Russian Federation, Hungary, Bosnia and Herzegovina, the United States of America (USA), France, Israel, the Czech Republic and some other countries. Since April 2004, new demand opportunities for Slovenian tourist destinations occurred in the EU countries for new visitors. With the Slovenian membership in the EU, the rapid growth of tourists is recorded from the UK, the Benelux countries and other countries outside the close region, which is caused by a substantial reduction airline tickets. Similar to some other CEE countries, such as in Poland, Hungary and the Czech Republic, the number of inbound and outbound tourists between the UK and Slovenia increased rapidly. The single Slovenian airline company, the “Adria Airways”, is also adjusting its operation with rationalization and costs reductions to the increasing competitive pressures by some other foreign airline companies, which are more actively entering in the previously rather closed Slovenian travel and tourist markets.

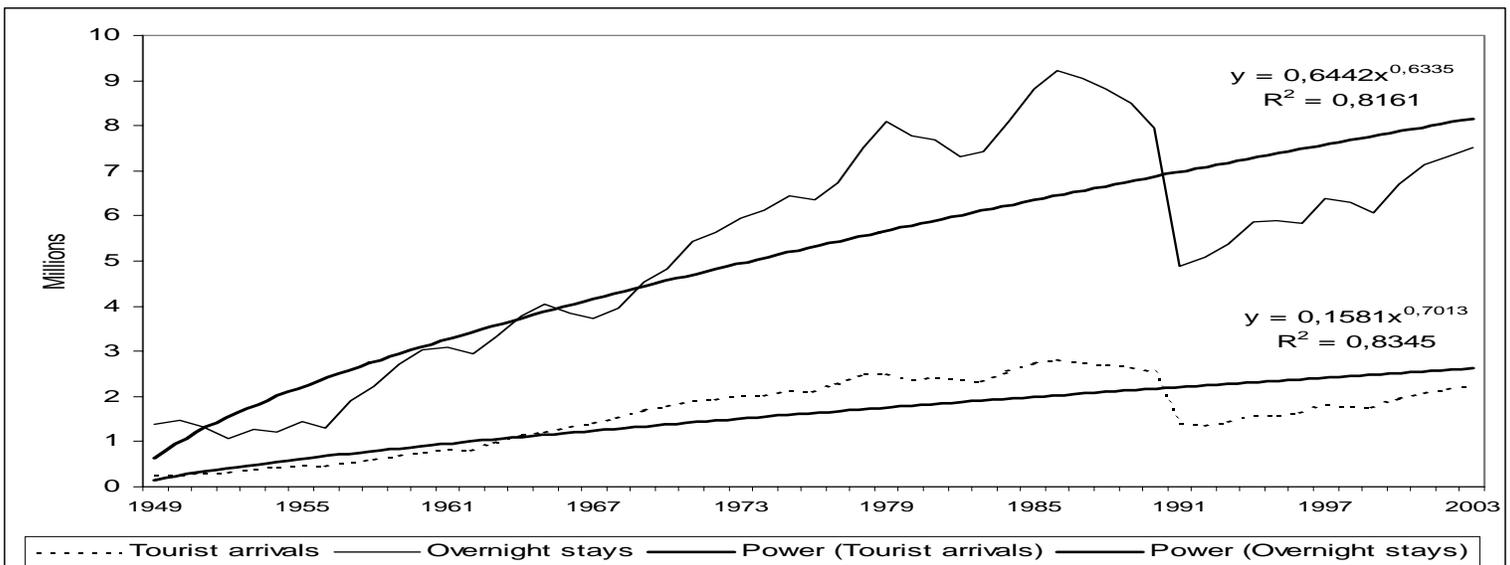


FIG. 2: TOURIST ARRIVALS AND TOURIST OVERNIGHT STAYS IN SLOVENIA, 1949-2003.  
Source: Own chart on the basis of data from the Statistical Office of the Republic of Slovenia (2004).

### **Patterns in the Structure of Tourist Demands for a Tourist Destination Places in Slovenia**

The Slovenian tourism is depended on domestic tourist arrivals and tourists from the neighboring countries. Among main reasons of foreign tourists for coming to Slovenia are holidays, then business and education. The statistical surveys with foreign tourists visited Slovenia showed that majority of the tourists are from the region coming to Slovenia by cars on holidays due to natural beauties, calmness and possibilities to rest and climate as the crucial determinants encouraging foreign tourist arrivals to Slovenia (Bojnec, 2004). Among motives with the increasing importance are prices, cultural sights and performances, recreational activities, medical and non-medical services in health resorts, the vicinity of tourist's resorts, and gambling. These new changes in the nature of tourist markets are reflection of growing demands for new tourist products. After the Slovenian accession to the EU on 1 May 2004, the importance of tourists coming by plains is increasing because the civil aviation transport is liberalized and the first low-cost carriers, the EasyJet, entered into the Slovenian market. As a result, there are the increasing arrivals of foreign tourists by plains from longer distances looking for broader European and world-class tourist destinations.

The Statistical Office of the Republic of Slovenia distinguishes five group of tourist places in Slovenia: Ljubljana (the capital of Slovenia), health resorts, seaside resorts, mountain resorts, others tourist places. In Fig. 3, the capital of Slovenia (Ljubljana) is included among other tourist resorts. During the last four decades, the mountain resorts have experienced the most stable structure in Slovenian tourist arrivals. The seaside resorts and particularly the health resorts have experienced a significant increase confirmed by an upward shift in the structure of tourist arrivals. On the other side, the other tourist places and since the mid-1980s other tourist resorts with the capital Ljubljana, have experienced a significant decline in the structure of tourist arrivals in Slovenia. These shifts in the structure of tourist demands are a reflection of both the tourist preferences towards a specific tourist places, and the innovative approaches in tourist supply. Therefore, the long-term preference in the structure of tourist demands in Slovenia is towards the spa and health resorts, and the tourist resorts at the Slovenian coast, which besides summer holidays are specializing in congress and wellness tourism.

Most tourist arrivals and tourist overnight stays are recorded in hotels, and domestic tourists on average stayed longer than foreign tourists. During the prevailed domestic tourism up to 1966, the average number of overnight stays in tourist resorts was relatively at high level. Immediately after then it declined, but increased during the 1970s and the beginning of the 1980s (Fig. 4). Up to 1986/1987 it is observed the increasing duration in overnight stays per tourist. After then this development pattern is reversed. Again increased during the prevalence of domestic tourists during the years 1992-1995. Since then, as already observed, the number of overnight stays increased less than the tourist arrivals confirming the reduction in the average length of overnight tourist stays in Slovenia. Across tourist destination places, the mountain resorts experienced rather stable developments close to the country average in the length of tourist stays. There are, however, diverging patterns for other tourist destination places. The overnight stays tend to decline for health resorts and seaside resorts, but the average length of stay remains greater than average. On the other side, less than the average length of overnight tourist stays is recorded for other tourist resorts and for other tourist places. A slight increase for other tourist resorts seems to be a consequence of the political independence of Slovenia, where Ljubljana, the capital of Slovenia is gaining in tourist importance as a tourist attraction as the administrative and cultural center of Slovenia.

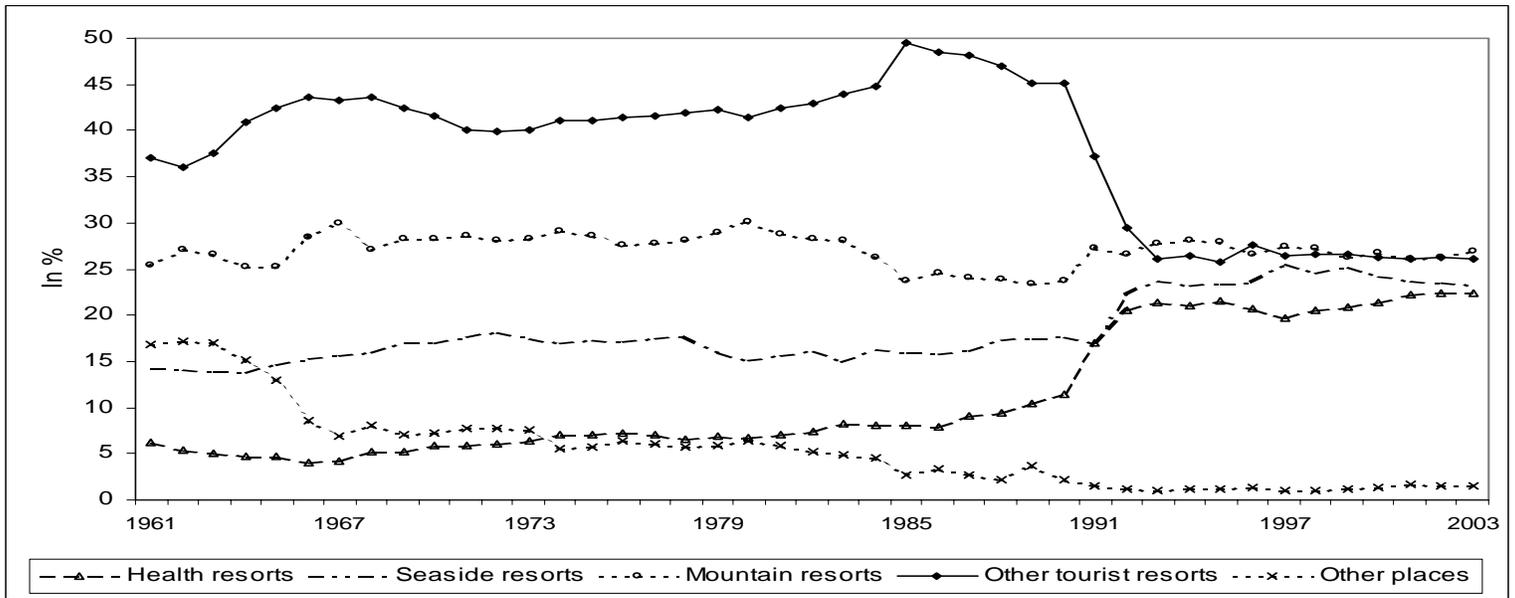
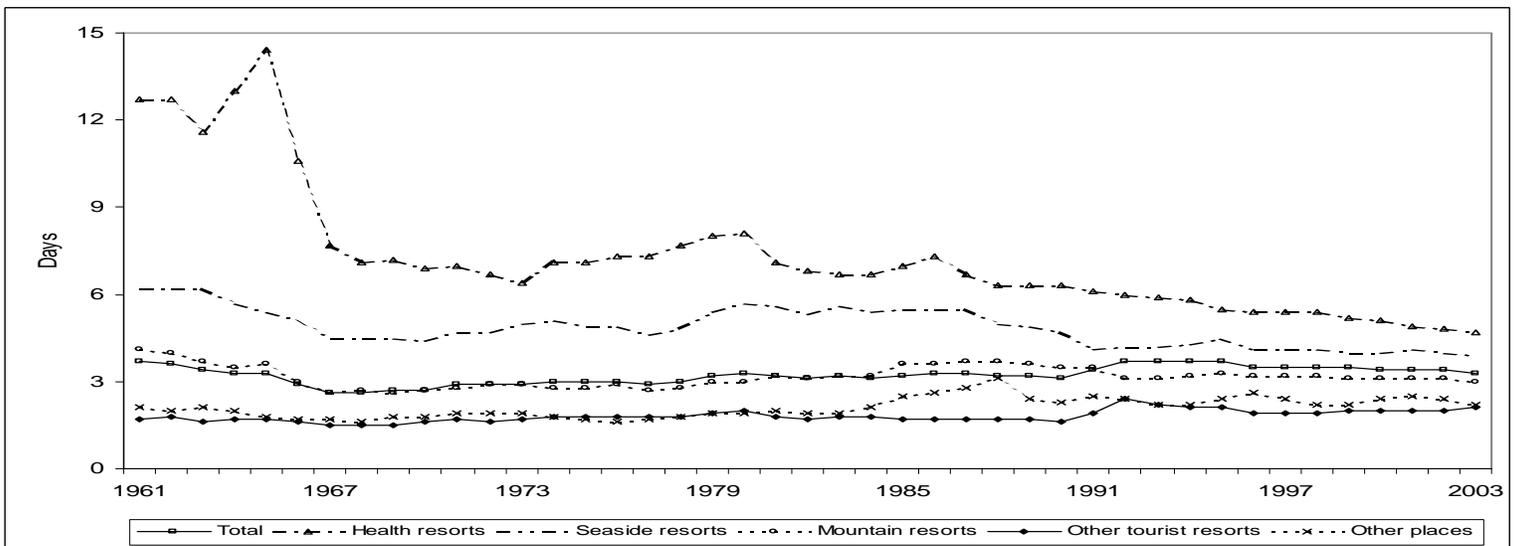


FIGURE 4. AVERAGE NUMBER OF OVERNIGHT STAYS IN SLOVENIA, 1961-2003.  
 Source: Own chart on the basis of data from the Statistical Office of the Republic of Slovenia (2004).



### Seasonality in the Slovenian Tourist Markets

The seasonality in tourist demands and the seasonal variation of quality in natural attractions are one of the most constraining factors reducing the utilization of the accommodation capacities particularly in massive seasonal holiday's tourist activities. Hotels in Slovenia are dominant in the structure of tourist accommodations for tourist arrivals and overnight stays with the greatest occupancy rates of beds. Among the new EU members, the net

occupancy rate of beds in hotels and similar establishments in Slovenia is less than 50 per cent. It is less than in Cyprus, but greater than in any other new EU members (Bojnec, 2004). The tourist beds occupation rates are associated with tourist arrivals. The climatically induced tourism seasonality is partly eliminated by new offers of a high value added tourism products substituting deterioration of natural attractions out of the main season and thus increasing competitiveness. As Table 1 shows, there are indeed variations in Slovenian tourist markets within a certain year as during the last two decades the tourist demands and arrivals are more concentrated on the summer months, when natural attractions are also in the best conditions. However, these uncertainties are already somehow predictable as they are occurring rather regularly over time. It is clearly illustrated that within a certain year, the number of tourist arrivals is increasing from January and completed with August. During September, there is approximately one-third less tourist arrivals than in August, but the number of tourist arrivals also in September is a bit less than in June, the third most important month according to tourist arrivals after August and July. The number of tourist arrivals in October is more comparable with its arrivals in April and May. During November and December is again low season in tourist arrivals, except for the Christmas and the New Years' holidays something similar as it is then at the beginning of the year in January and February. Of course, there are differences between the occupancy rates of tourist accommodations within a certain tourist destinations and even more across tourist destination places. The annual gross occupancy rate of tourist accommodations is the highest for the health resorts, where it is approaching two-third of beds being occupied on an annual basis. The seaside resorts are particularly well occupied during the summer holiday's season, but they are increasing their annual occupancy rate, too. Less than average on an annual basis are occupied mountain resorts (around one-third) and other tourist places. In the capital of Ljubljana, there is less turbulence tourist demands within a year by months.

TABLE 1: STRUCTURE OF TOURIST ARRIVALS IN SLOVENIA BY MONTHS, 1985-2003 (IN PERCENT).

	1985	1990	1995	2000	2003
January	5.2	5.2	5.7	5.3	5.2
February	5.1	5.1	6.0	6.2	5.6
March	6.3	6.4	6.4	6.1	5.9
April	6.9	8.3	7.4	7.5	7.0
May	8.5	8.5	7.7	7.7	8.8
June	10.0	9.9	10.1	10.1	10.4
July	13.3	12.8	13.8	12.8	13.1
August	15.2	15.7	15.5	15.7	16.1
September	10.7	10.1	9.2	9.9	9.7
October	7.5	7.3	6.9	7.3	7.5
November	5.5	5.4	5.4	5.4	5.3
December	5.7	5.6	5.9	5.9	5.5
	100.0	100.0	100.0	100.0	100.0

Source: Own calculations from data of the Statistical Office of the Republic of Slovenia (2004).

## Management of Uncertainty in Tourism Development and Policy Implications

We have analyzed the changing patterns in the demands shifts and supply responses in the Slovenian tourism economy, which are connected with institutional and policy changes in the Slovenian economy, and the institutional, historical and policy changes in the broader Central and Southeastern European territory during different historical times. It has been clearly states and empirically illustrated that tourism is a sensitive economic activity, which is rapidly responding to different economic, political, social, natural environment, ecological and some other substantial changes. More specifically we have analyzed the Slovenian tourist supply and demand developments using available tourist accommodation capacities, tourist arrivals, and their overnight stays. Additionally, we have

analyzed the structures and patterns of tourist arrivals to Slovenian main statistically defined tourist destination places. The specific attention has been devoted to seasonality in the Slovenian tourist markets indicating potential risks and uncertainties within which the tourist markets are operating. Besides these short-term uncertainties within a certain year, our main attention has been devoted to long-term developments. The main structural breaks in tourist supplies and demands have been associated with crucial institutional, policy and some other changes, which induced shocks and uncertainty for participants in these long-term growing markets. Due to political, institutional and economic factors in the former Yugoslavia, tourism in Slovenia as well as in most other former Yugoslav republics and ex-socialist CEE countries faced difficulties immediately after the Second World War. Particularly after the mid 1960s, the tourism economy in the former Yugoslavia was liberalized within the communist system, which induced dynamic demand and supply processes. The dynamic growth of the Slovenian as well as other former Yugoslav destination was stopped by the economic and serious political crisis at the end of the 1980s and the first half of the 1990s. Unlike to some other CEE countries (e.g., Poland, the Czech and Slovak Republics, and Hungary), where after the collapse of the communist regime the tourist economy was booming by increasing numbers of foreign tourist arrivals, the former Yugoslav destinations, including in the first half of 1990s also the Slovenian ones, went in a decline. During these years the international tourist arrivals and overnight stays declined substantially, which was partly offset by domestic tourists as they reduced travels abroad, particularly to the neighboring Croatian tourist destinations, which were closer to the Balkans' wars during that times. With the economic and political stability since the mid 1990s the tourist economy in Slovenia has recovered with the increasing number of tourist arrivals and overnight stays by foreign tourists coming to Slovenia. Most foreign tourists are from the region (Germany, Italy, Austria and Croatia) coming by cars, but the importance of tourist coming by planes is increasing by entering low-cost carriers into the travel markets. The membership of Slovenia in the enlarged EU since 1 May 2004 increases opportunities for tourism development. Slovenia is attracting new holidaymakers from EU and the rest of the world.

As has been empirically illustrated, the Slovenian tourist markets are biased to seasonal fluctuations within a year. The most important strategy for management with seasonality is to extend or to disperse the season. This of course requires innovative approaches of diversification towards new tourist products and new niche markets, which is also associated with investments. Hotels play the crucial role in tourist arrivals and overnight stays, but some other tourist supply is emerging thus creating diversification offers to different niche markets also in non-traditional tourist destinations. Tourism is therefore foreseen as a good opportunity also for areas, which is lacking in behind in development, particularly rural ones. Some domestic investors in expectation of tourism growth already invested in some hotel based tourist supply focusing on post-privatization restructuring, diversification of tourist offerings and quality improvements to keep and attract new tourists in Slovenian tourist destinations. The important synergies are expected from the EU membership and political stability in the region, which are expected to reflect in a considerable increase in foreign tourist arrivals and international tourism receipts. So far the FDIs in the Slovenian tourist economy have been less important. It is known that they have played an important role in tourism and tourist destination developments in some EU members such as Spain, Portugal and Greece. With the membership of Slovenia in the EU, factor markets are deregulated, which may induce the entry of FDIs in the Slovenian tourist economy. The membership of Slovenia in the EU provides also new opportunities for domestic private investors and entrepreneurs in diversification of tourist supply using the EU programs and initiatives for investments in tourist projects and in development of tourist destinations. There are also greater opportunities for investments and tourist destination developments from mutual cooperation between diversified private and public resources, including structural, cohesion, cross-border, rural development policies and investment initiatives from the EU with the crucial role of entrepreneurial spirits and incentives.

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# Managing and Sustaining Tourism Products: A Case of Island Promotion

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## Abstract

In line with the challenges facing global markets, the tourism industry is pressured to look into innovative marketing strategies to lure international tourists who are kept away by uncertainties brought about by terrorism and numerous health scares. Various tourism products become marketing tools as tourism agencies strive to attain profitable tourist entries into the country. A case study of *Perhentian* Island, an island off the coast of Terengganu, a state in the east coast of Peninsular Malaysia, revealed some interesting findings which could be transcended into the development of tourism promotion. Using the qualitative technique as an approach to data collection, focus group interviews were conducted with two groups of stakeholders who play vital roles in the development of tourist products. The main aim of the focus group is to elicit responses from the groups about their views on the development of tourism in *Perhentian* Island. The findings of the study is meant to evoke further thoughts into management issues that may be translated into means of sustaining long term resources in the island.

## Introduction

The tourism industry is big business in Malaysia generating some 10 percent to the country's gross domestic product (The Star, 2004). In 2004, tourists' arrivals generated almost RM30 billion (US\$7.8 billion) income for local businesses and hotels in the country and just between January and November of 2004, 14.4 million tourists' arrival (Tourism Malaysia, 2004) was noted despite current environmental crisis in the region such as the outbreak of SARS, Bird Flu and the ever looming threat of terrorism in nearby countries.

Although Malaysia is still the destination of choice among its neighboring countries such as Singapore, Thailand and Indonesia, its appeal to other tourists from countries such as China, Japan, United Kingdom and Australia is still relatively high as highlighted by Table 1 below.

TABLE 1: NUMBER OF TOURISTS' ARRIVALS TO MALAYSIA 2003/2004

ASEAN	2003	Jan-Nov. 2004	OTHER REGIONS	2003	Jan.-Nov. 2004
Singapore	5,141,831	8,689,997	China	304,138	504,609
Thailand	1,026,172	1,389,947	Japan	188,272	279,234
Indonesia	537,968	737,033	United Kingdom	110,101	185,510
Brunei	192,638	414,689	Australia	128,267	183,514

Source: Immigration Department of Malaysia, 2004

One tourism product that has stood out as a popular destination in Malaysia, especially among European tourists, is the many islands around Malaysia. Malaysia is bestowed with beautiful islands which to a large extent have not been fully tapped as a tourism product. However, island as a tourism product have been a subject of debate by both environmentalist groups as well as policy makers. On one hand, environmentalist groups see island resources as scare and therefore need to be preserved and protected. The policy makers on the other hand, look at islands as natural resources full of lucrative potential for boosting tourism. This is a dilemma that is faced by many islands in the world and islands in Southeast Asia are no exception as the lure of tourists beckons the need to enhance promotional strategies. This study therefore seeks to assess the views of the stakeholders, namely, the island

residents and the hotel and resort operators on the likely impact of aggressive island promotion by tourism agencies in the country. Despite, the lucrative outlook, there is a need to assess the opinions of both parties whose livelihood is very much dependent on such natural resources.

Perhentian Island is one distinctive island off the east coast of Peninsular Malaysia where marine lives thrive and beautiful corals are still available widely. An approximately one hour boat ride from Besut, a coastal town on the mainland, will take visitors to the scenic Perhentian Island where island resorts and numerous chalets are available to meet the needs of both local and international tourists. Tourism Malaysia (2003) finds in their departure study of international tourists that more than 27 percent of tourists visiting Malaysia prefer the beach as their main destinations whilst more than 20 percent feel that the beach and island resorts are attractive destinations that should be used to promote Malaysia. The underlying implication of these findings is the importance of islands with their beaches, open seas and exotic marine lives as attractive products for promoting tourism in the country. Yet, to what extent can tourism bodies responsible for marketing such products aggressively promote and market them? The question of controlled tourism is often posed for such scarce resources where sustainability is an issue linked to its marketing strategies.

## Literature Review

Tourism has grown tremendously in the last century and become the world's largest 'industry' and as a result, tourism demands have now become more complex and challenging (Buhalis, 1999). It is therefore not a surprise that pertinent parties involved in tourism development and those who are passionate about conservation may have different views on tourism management. Whilst tourism promises lucrative income for a country, this may also spell disaster to natural resources and environment when there are loopholes in the regulations and lax of resource management. As such, both the environmentalists and policy makers often differ in their views on how tourism resources should be manipulated and managed.

Marketing of tourism products have taken center stage among tourism bodies responsible for enhancing tourists' revenue for a country. In Malaysia, Tourism Malaysia, the agency in charge of overseeing tourism marketing in the country is keen to promote tourism products that are both lucrative and could be sustained for a long period of time. But this is quite difficult to attain when most attractive tourism products are linked to natural resources that are often scarce and irreplaceable. Cooper and Ozdil (1992) suggest that the realization of the negative impacts of tourism on host environments and societies has prompted a search for alternative forms of tourism and a move away from 'mass' tourism. Although this may seem viable from a marketing perspective but the long run implementation can be both difficult and cumbersome.

In line with this discussion is the need to select tourism products that could be highlighted by agencies such as Tourism Malaysia that is managing and marketing such offerings. Indeed, the competitiveness of tourist organizations in luring potential tourists to their destinations depended on their ability to differentiate their product and serve individual consumer needs. Kotler, Swee, Siew and Chin (2003) suggest that each customer is potentially a separate market because of unique wants and needs and therefore should be treated accordingly. This essentially increases the difficulty of planning proper marketing strategies or more specifically promotional strategies that meet the wants and needs of target markets whose sophistication is matched only by their ever increasing palette for new offerings. Plog (2001) believes that the life cycle of particular tourists' attraction will influence the level of appeal among target market. At each stage of the life cycle, destinations appeal to a different psychographic group of travelers who determine the destination's character and success. This essentially adds to the complexity of developing effective marketing strategies. For Tourism Malaysia, the way to ensure that they reach target markets is through a deep understanding of each specific market whilst managing effectively existing tourism products in order to ensure sustainability.

Swarbrooke and Horner (1999) identified a rise in the number of tourists keen in preserving the environment as they are referred to as 'green' or 'eco tourists'. This is supported by the study by Middleton and Hawkins (1998) where tourists are keener to select destinations that promise environmental attractions. Islands offering natural attractions such as corals and marine life are more likely to be selected and will be placed high in

the list of attractive tourists' destinations. However, Buhalis (1999) noted that such destinations are more open to exploitations as natural resources make way for personal gains. Ultimately, these islands may give way to development and as development proceeds, natural resources recede. The outcome of this is the diminishing attraction of such islands as tourists move to other alternative attractions.

This is indeed a reality, which tourism bodies cannot deny and neither can relevant policy makers ignore. As such, the extent of development and promotion of island destinations as lucrative tourism products need careful analysis as a balance between profit and long term environmental gains become critical consideration. This study seeks to explore the level of promotion which tourism bodies and relevant government agencies should consider when sustaining the natural attractions of islands become a vital issue in ensuring long term economic survival of the islands. The findings may well help in providing inputs into strategic promotional development where controlled markets become necessary. Indeed, it would be impossible to plan mass promotion of tourism products such as islands when such products are often categorized as scarce and in need of protection from the depletion of natural resources found only in or surrounding the islands.

The preservation and conservation of islands has become a subject of interest among numerous agencies and conservationist groups in Malaysia when island developments are linked to increased tourism revenue. In Malaysia, island tourism is associated with European tourists as the lure of the islands' natural beauty brings many foreign tourists into the country (Tourism Malaysia, 2003). As such, island developments are considered inevitable, as facilities need to be built and upgraded to keep pace with increasing tourists' arrivals. Yet, questions as to the extent of development often arise and policy makers and conservationists are in constant battle to uphold their views and opinions.

## **Research Objectives**

The study aims to achieve the following objectives:

1. To identify key elements influencing the development of tourism products arising from the views of local residents,
2. To assess the views of local residents on the likely implications of tourism development in Perhentian island,
3. To develop a framework of main issues pertaining to the development of tourism in Perhentian Island critical to policy formulation by relevant agencies.

## **Research Questions**

1. What are the views of local residents on the development of tourism in Pulau Perhentian?
2. What are the main issues influencing tourism development from the perspectives of residents of Pulau Perhentian?
3. What implications would tourism development have on Perhentian Island?

## **Methodology**

The study opted to utilize a qualitative method of data collection where focus group interviews were the main mode of data collection. The main reason for selecting a qualitative method is the need to generate as much first hand views and opinions from selected respondents who represented the subject of interest and who are likely to provide an unobtrusive view of the subject. The richness of data is elicited through qualitative method such as this and this is considered critical to the research findings.

Two groups of focus group respondents were selected. The first group represented the resort and hotel operators whose main livelihood is dependent on the arrival of tourists to the island. Their views are pertinent as this may serve to highlight the importance of tourism development on the island. The second group comprised of local residents and community leaders whose views may be mixed as some were dependent on tourism development for

their family well-being whilst some may see tourism as intrusive and a hindrance to a relatively peaceful living environment. Essentially, the views of these two groups of respondents may be similar or it may contradict each other and the differences in opinions are likely to provide a rich array of data concerning the subject.

Perhentian Island is generally divided into two main islands, *Big Perhentian* and *Small Perhentian*, where *Big Perhentian* is where the tourists' attractions are located whilst *Small Perhentian* is the residential island where locals lived. Apart from the hotel and chalet operators, there are very few locals living in *Big Perhentian* where infrastructure development is linked to the needs of the hotels and chalets in the island. *Small Perhentian*, on the other hand, offers most of the infrastructural requirements and facilities of communities living in the island. The selection of respondents from each of this island is purposive in order to meet the need of the study. The two focus groups represented each of the two main subjects, the resort and hotel operators at *Big Perhentian* and local residents at *Small Perhentian*. The two focus groups comprised of the following:

TABLE 2.: FOCUS GROUP 1 AT BIG PERHENTIAN ISLAND

<b>*Respondent</b>	<b>Ethnicity</b>	<b>Gender</b>	<b>Occupation</b>
Mr A	Malay	Male	Resident Manager, Perhentian Island Resort
Mr. OD	Malay	Male	Human Resource Manager Perhentian Island Resort
Mr. Dan	Chinese	Male	F&B Manager, Coral View Resort
Mr. NZ	Malay	Male	Manager, Coral View Resort
Mr. MS	Chinese	Male	Managing Director ,Watercolors Resort
Mr .AMN	Malay	Male	Marketing Executive, Perhentian Island Resort

\* Names of respondents have been disguised

TABLE 3: FOCUS GROUP 2 AT SMALL PERHENTAIN ISLAND

<b>*Respondents</b>	<b>Ethnicity</b>	<b>Gender</b>	<b>Occupation</b>
Mr. MM	Malay	Male	Head Master Perhentian Island Primary School
Mr. OM	Malay	Male	Village Head
Mr. MT	Malay	Male	Boat and Chalet Operator
Mr. K	Malay	Male	Teacher Perhentian Island Primary school
Mrs. R	Malay	Female	Chairperson, Parent-Teacher Association Perhentian Island Primary School
Mr YH	Malay	Male	Gardener Perhentian Island Primary School
Mr. NA	Malay	Male	Fisherman

\* Names of respondents have been disguised

In line with the requirements of conducting focus group discussions, the selection of respondents who are relatively homogenous is pertinent to the success of the session. The group must share similar backgrounds whilst maintaining sufficient variations to allow for contrasting opinions. This was essentially achieved where respondents in the first group comprised of those hotel and chalet managers and operators who understood their roles and the importance of tourism in their line of work. The second group however, comprised of respondents who shared one distinctive similar characteristic in that they were all local residents who have lived on the island almost all their lives and knew one another relatively well but were dissimilar in vocation and their source of livelihood. As such, this is deemed relevant to the needs of the focus group where homogeneity is still maintained whilst addressing the need for variations of opinions (Cavana, Delahaye and Sekaran, 2001).

The size of focus groups of between 6 to 10 people are considered adequate as too small a group is not likely to generate enough views and opinions whilst too large a group may lead to unequal participation among respondents, hence bias responses may be generated. Two moderators or facilitators were employed at each focus group session to ensure a smooth flow of questioning and probing. Each focus group sessions lasted between 1½

hours to 2 hours and the sessions were videotaped and tape recorded to assist in the transcribing process. Although the interview sessions were conducted in the Malay language, this did not interfere with the analytical process as the moderators and the researchers were bilingual and were well-versed in both the Malay language and the English language to ensure correct translation for the purpose of this report. Responses were immediately transcribed and the completed transcripts went through the process of qualitative analysis by means of open coding, axial coding and selective coding procedures (Glaser and Strauss, 1967; Strauss and Corbin, 1998; Denzin and Lincoln, 1998). The grounded theory method of analysis (Glaser and Strauss, 1967) was adopted for the purpose of analyzing the qualitative responses as this method has proven to be more thorough and scientifically robust. At the same time, interpretive analysis by means of constant comparative method and a detailed content analysis were continuously maintained to ensure that responses were thoroughly analyzed.

Open coding refers to the naming and categorizing of phenomena through a close and detailed examination of the data. A total of 15 categories were identified through open coding in the study and these were written as code notes or memos where each category underwent further scrutiny by asking questions and making comparisons about the content of the interviews. Basic questions of who? when? where? what? how? how much? and why? were examples of the types of questions posed to ascertain the attributes and the dimensions of the categories. The process of axial coding comes next where data generated from open coding process is put back together in new ways by making connections between categories and subcategories. The resulting model provides a more detailed description of causal and intervening conditions as well as the consequences of the conditions of the findings. The last process of selective coding involves the process of integrating all the data accumulated in axial coding and identifying core categories, systematically relating these to other categories, validating relationships and filling in categories that need further refinement and development (Neuman 1997). Evidences that justify and validate themes are collected to ensure that an overall description of the underlying theory emerges. Findings from three coding processes are integrated to allow for the development of propositions relating to the research questions posed at the on-set of the study.

The credibility of a qualitative study such as this is judged by both the adequacy of the research process and the adequacy of the empirical grounding of the research findings (Strauss and Corbin, 1990). The research process was guided by detailed procedures especially in the selection of respondents and when identifying categories as well as detailed procedures of conceptualizing relationships among categories. As outlined earlier, constant comparative and thorough content analyses guided the whole process of data analysis, which should satisfy the requirement of credibility and adequacy of empirical grounding. Although this justification addresses issues of credibility and adequacy of the empirical grounding from a qualitative perspective, some clarification for those more familiar with quantitative analysis may be necessary. Firstly, grounded theory as a qualitative enquiry is generalizable to the specific actions and interactions that pertain to a phenomenon and resulting consequences. This particular study is representative of the theoretical perspectives of thirteen participants who were deemed relevant as they represented the views of key people relating to the subject matter. Secondly, reproducibility of the study may be questioned by those more familiar with quantitative research. Theory that deals with a social or psychological phenomenon is probably not reproducible because conditions cannot be exactly matched to the original study though many major conditions may be similar. However, given the same theoretical perspective of the original researcher and following the same general rules for data gathering and analysis in a similar set of conditions, another investigator is likely to 'reproduce' the same theoretical explanation about the give phenomenon. Should discrepancies arise, these could generally be explained by reexamination of the data and identification of different conditions that may be operating in each case (Brott and Myers, 1999).

The results of open, axial, and selective coding procedures reflect the emergence of theoretical categories that explained the likely impact of tourism development in the island. Three theoretical categories emerged through the process of axial coding that explained how respondents view the impact of tourism development in the island. The three theoretical categories included, 1) attitude, 2) shared understanding, and 3) acceptance. These are then grounded in the data to induce the theoretical implications leading to the impact of tourism development in Perhentian Island.

## Findings

The problem grounded in the data of this research was to identify the likely impact of tourism development on the island that could provide possible inputs for developing guidelines toward sustainable management of resources and appropriate promotional strategies. The theoretical categories that emerged are explained as follows:

### Attitude

The feelings of the participants toward the presence of tourists on their island are best reflected by their underlying beliefs that human attitude influenced the reaction of people. Their outlook towards the presence of tourists on the island indicates the extent of tolerance and understanding these people have towards foreigners. Despite the general perception that the people of the islands are rather backward and very conservative and are not used to the ways of the world, the responses given indicated otherwise. These people who are by now used to the ways of the westerners or foreign tourists regarded their presence as adding colors of their lives where a lot could be learned about human behavior. As indicated by the following response:

*“It’s really up to us. The way they (foreign tourists) live, they dress, that’s their way. But everyday I see them reading, the way they eat – their etiquette. If they are eating a banana (and cannot find a bin), they will not throw away the banana skin, they will keep it in their pockets and then when they find a bin, they will throw it.”*

- Teacher, Small Perhentian Island

Clearly the locals’ perception of the foreign tourists is not all bad as they marveled at the attitudes of the foreigners whom they see as full of wisdom in many respect. Their physical outlook or the way they dress may be different from the locals who are predominantly Muslims whose code of dressing is dictated by Islamic requirements. Yet, they are tolerant and accept the positive values exuded by foreigners on the island.

Undeniably, there are those whose lack of exposure of the ‘ways of the world’ have succumbed to negative temptations but some are clever enough to take advantage of the presence of foreigners on the island as indicated by the following response:

*“There are some youths who are influenced by the ‘yellow culture’ but they are others who take advantage of the tourism industry. For example, for water sports, scuba diving..... if we look at their academic achievement, they have not even passed their SRP (basic educational certificate), but when conversing in English, if we switch off the lights, we would think they come from England.”*

- Resort Operator, Big Perhentian Island

Essentially, the presence of tourists on the island need not necessarily lead to negative outcomes, as there are positive consequences enjoyed by the people of the island. Their knowledge is clearly richer and their understanding of human behaviors is more open than before. In essence, they believe that people’s attitudes influence how they perceive a particular situation. A lot could be learned if people are more opened and view new experiences as life’s way of increasing their knowledge. As the following response indicates:

*“To me, it’s up to the family. If the family is responsible, negative effects will not occur. But if the family is irresponsible, meaning that they could not care less, the children can do what they want.....”*

- Parent-Teacher Association Chairperson, Small Perhentian Island

The close-knit family of Malaysian communities are reflected in the above response when the participant feels that the children’s upbringing has a lot to do with the way they accept new experience. Guidance from parents or other extended family unit is crucial in ensuring that positive values are developed and adhered to. The ‘Asian values’ as reflected by the eastern cultural influence of many Malaysians dictate the importance of the family unit as a support system in ensuring family well-being. Thus, family influence is key in molding the children into resourceful and well-balanced individuals.

The people on the island believe that human attitude is key in influencing one’s perception towards others. The general believes of many Malaysians that the people of Perhentian Island are rather backward and conservative is not justified when these people are already exposed to the many ways of the foreign tourists. As lamented by one of the participant:

*“In my opinion, the ‘land people’ (people on the mainland) still do not know that this is an international island where there are outside tourists. So the land people still have low perception of the island people...”*

- Head Master, Small Perhentian Island

This is how the locals regarded the general Malaysians whom they feel have very low perception of them as people who are well exposed to the ways of the world since tourists from various nations are indeed their best teachers. The policy makers and tourism authorities that are mainly located on the mainland are essentially the target of criticism among the locals where development is concerned. Their welfare is sometimes neglected because of the lack of understanding of higher authorities in managing them and their island resources. The connotations of the ‘land people’ and the ‘island people’ are proof of how the locals perceived their standing. The land people are seen as controlling the development of the island without internalizing the needs of the locals. There are still inadequate infra structural development as basic commodities such as water supply, health facilities and security measures are not developed abreast with tourism development. As indicated by the following responses:

*“There is only one maternity clinic in Perhentian Island, there is no hospital or anything. If there is any emergency among the tourists or local residents there is no immediate medical attention, we have to bring them to Besut (nearest town on the mainland). That is if the weather permits, that’s okay we can bring them in the boat. But if the weather is bad, there are problems”*

- Chalet Operator, Big Perhentian Island

*“Earlier, there was adequate water supply because we have our water resource in the big island. But when the chalet people also request for water, it has to be distributed to the chalet people also. Then there is not enough water but only now on the first of June, the water for the chalet people was stopped and all was given back to the village people.....the pipes. Maybe in 2006 or 2007 water from the mainland will come to Perhentian Island. This is all in the planning stage.”*

- The Village Head, Small Perhentian Island

*“The electric here for now operates for 24 hours except when the engine is faulty...the generator is disrupted.....Water supply is not consistent everyday, its here for a while usually for half an hour, then we have to keep them. Its only the next morning it (the water) will come again. That is why we need water from the mainland.”*

- Parent-Teacher Association Chairperson, Small Perhentian Island

The imbalance of the development of basic facilities such as those cited by the participants are slowing ebbing the patience of both the local residents and the chalet operators who are very much dependent on the availability of basic amenities. Definitely development is required on the island but it has to be prioritized according to the needs of both residents and tourists and equally distributed. The locals have already indicated their ability to handle the presence of tourists on the island but there are still things that need to be addressed urgently. There is a need to increase the understanding between the island people and those who are managing their resources. This brings back the point on attitude and shared understanding on the needs of the island and the island people. It is how people perceived one another that could expand one’s understanding of their needs. This relates to how the locals’ attitudes influenced their reception towards foreign tourists whilst at the same time the administrators are urged to develop positive attitudes towards the people of the islands who are no longer backward nor unknowledgeable of the needs of tourism. As much as exposure among the islanders on the ways of the foreigners has indeed increased over the years, there is still the question of to what extent these can be translated into strategies of productive management of existing resources. Scarce island and marine resources need to be managed effectively to ensure sustainability. Are the islanders ready or do they understand the likely impact of unregulated tourism development on their scarce resources? This is addressed in the next findings.

#### **Shared Understanding**

The people of Perhentian Island have essentially displayed a strong opinion of what they think of tourism development. To a large extent, tourism is regarded positively as it allows them to enhance their economic well-being. It has certainly enabled them to learn more about the foreigners whose ways are totally different from them but are still laden with good values if one takes the time to analyze and understand their behaviors. Yet, what is greatly lacking at present is a shared understanding between the ‘land people’ and the ‘island people’ on how

tourism should be handled. Indeed, tourism has changed the lives of the people on the island as indicated by the following responses:

*“If we were to compare 10 years ago, the women of the island work together with their husbands on their vegetable plot or as fishermen, but not anymore....It used to be the island’s produce, the bananas, the fruits from the island to the mainland. Sent to the mainland to be sold. Now, we have to get from Besut and bring them here. The costs of things are very expensive because we have to calculate transportation cost, wages to those people who handles our things at the jetty.”*

- Parent-Teacher Association Chairperson, Small Perhentian Island

*“Now the residents here.....very obvious differences. .... They used to be fishermen but now they are boat drivers. It is very difficult to find fishes here. The people here get their fishes from the mainland..... What is very obvious, those aged 35 and above will work on the resorts .....Some work on their own and will buy small boats and will take advantage of the opportunities to increase their income”*

- Front Office Manager, Big Perhentian Island

Tourism has become the lifeline of many of the people of Perhentian Island. They are no longer solely dependent on their natural livelihood of fishing as the waters around the island has become a protected area and a sanctuary for marine lives. They now look at tourism as their main means of income generation and some could not visualize their lives without tourism. They have now become dependent on goods from the mainland as their lifestyles changed and their living standard increased. Indeed, this revelation changed one’s outlook towards the islanders who are now more susceptible to the impact of tourism. Should tourism in Perhentian Island failed to ensure sustainability, it would be difficult for the islanders to shift their lifestyles to their original ways. Life has become too good where their standard of living is now comparable to people on the mainland. It has now become more pertinent for tourism agencies to manage the island products as effectively as possible. This realization however, enhances the need for both the islanders and the managers of the tourism products to understand each other’s needs. Shared understanding comes from the realization that each party has something to offer the other whilst at the same time each is dependent on one another to ensure the success of any tourism undertakings. The following responses highlight this need:

*“Just that we hope that the locals will manage tourism on this island. If tourism is here, big agencies will come to this island, there is no need for this. .... I see that the islanders themselves can develop this island.....”*

- Headmaster, Small Perhentian Island

*“We just hope that the authorities will play their roles from the social aspect. As for now it is quite effective...what they’re doing. For the chalet operators everyone got the approval from the authorities. That is for now. ...Because the government has dictated that everyone must have licence (to operate chalets)*

- Village Head, Small Perhentian Island

Shared understanding also goes to describe the need to accept and uphold the importance of conserving and protecting the island’s natural resources. The distinct depletion of some of its beautiful marine resources has prompted the authorities to increase conservation efforts by imposing fines and increasing monitoring procedures much to the chagrin of the locals who are dependent on marine lives for their livelihood. They have however, accepted the need to conserve when scenario of complete depletion of their beautiful island’s resources are conveyed to them by the authorities. Yet, much needs to be done in this respect if sustainable tourism development is to be realized.

#### **Acceptance**

Changes on current tourism measures are inevitable on the island if long-term sustenance of resources is to be achieved. In this respect, the islanders appear to display a high level of acceptance on the ways of managing and operating their tourism resources although this realization has not been translated well in practice. To some, it is the tourists who have taught them the need to uphold conservation as suggested by the following response:

*“Normally, the village people will sweep the leaves and burn them under the trees.... I do the same thing...I got scolded by the tourists. Their awareness of conservation is very high but our locals do not appreciate this. They don’t appreciate what we have because the minute they opened their eyes (in the morning) they see greeneries and they see the blue skies, so there is nothing left to appreciate.”*

-Chalet Operator, Big Perhentian Island

*"....I agree with the other chalet operators of the importance of conservation. If we look at the tourists who come here with their high awareness of conserving nature... and I, as a diver, I have traveled all over the world, up till Papua New Guinea, even in places where there are cannibals, I have gone to dive.....and in terms of the corals there and Perhentian Island, I think Perhentian Island is the last frontier...."*

-Diving Instructor, Big Perhentian Island

There is indeed a high realization of the importance of conservation and the need to ensure sustainability of existing resources on the island. However, extending this realization to the masses is not an easy task and one which appears daunting. As reflected by this response:

*"Actually, this must start at the school level. About cleanliness and things like that because once we leave schools and we come to islands like these.....we are sometimes embarrassed when we look at the foreigners, how they value cleanliness and we as Malaysians if we want to promote to the people outside our country and we do not keep our cleanliness, how do we expect people to come?"*

- Resort Operator, Big Perhentian Island

If the people of Perhentian Island and the tourism authorities agree on tourism development of the island, a lot needs to be done to ensure that natural resources are sustainable. What the analysis has managed to highlight are a few subjective revelations of the islanders' view on tourism. They are ready to undertake the challenge of managing and running their own island and they expect the authorities to understand their needs as much as the authorities would like them to understand the long-term impact of tourism development on the island. The possibility of the islanders adapting to the needs of the tourists and the requirements of the authorities are possible although this may appear to be quite a long affair as the islanders need to understand and accept the reality that tourism development has its price.

## **Discussion**

The purpose of this study was to generate a grounded theory of the people of Perhentian Island's perception towards tourism development. The aims of the study were to identify key elements influencing the development of tourism products and the assessment of views on the implications of tourism development as well as relate these to possible marketing strategies of similar island products. The grounded theory has resulted in identifying key human elements that are vital ingredients when planning strategic ventures. Be it business or non-business ventures, it is still human needs and human values that need to be considered. The propositions emerging from this study indicates that:

P1: Attitudes of the people of Perhentian Island is important in conveying acceptance to tourism development.

P2: Shared understanding is a vital element in ensuring that tourism development meets the needs of all relevant parties.

P3: Acceptance of vital elements critical to long-term sustenance of island resources is indicative of support given by the islanders.

It appears that tourism development is generally viewed positively by the islanders although much has been said about possible negative impacts brought about by the 'yellow culture' of foreign tourists. What can be established at this point is the local residents' view that it is essentially one's attitudes that will influence one's perception and acceptance of new values. Indeed, there are problems brought about by new culture such as the foreigner's way of dressing and the way of life that is considered 'unislamic' but these are by no means the sole perils of tourism. There are still some good values to be learned from the foreigners such as their strong values on conservation and environmentalism, their dependable work ethics and their unassuming acceptance of new ideas. Influences on local youths on the free lifestyles of the foreigners have been noted but these have been attributed to personal values and need not necessarily be generalized to the masses. Indeed, there is likely to be both pros and cons in the development of tourism.

What is perhaps essential at this point is a thorough analysis of how to sustain the attractions of the islands. The marine lives, the beach, the seas, and the corals are resources that are irreplaceable and measures need to be undertaken to ensure their continued existence. This is where the authorities play a vital role in developing

appropriate marketing and conservation strategies. The need for a well managed or controlled tourism may well be the answer to this. Islands like Perhentian should be listed as protected environment and therefore tourism activities should be drawn carefully to reflect the need for conservation. It is not proper therefore to lump island promotion into the big promotional or marketing strategies common of tourism bodies or marketing agencies. These are for selected markets who understand the need to protect and to conserve. Indeed, in this era of borderless world, a whole range of changes in society and the global economy will need to be taken into consideration in planning and managing tourism destinations (Parker, 1998; Go, 1996; Smeral, 1998).

Promoting island products would entail a niche or specialized promotional tactics. The target market should be clearly defined and carefully segregated. Marketing strategies aimed at this group is likely to provide richer and effective impact. Islands as a tourism product appeal only to certain group of people and this should be made clear to all relevant marketing authorities. If long-term survival is to be ensured, both for the island and the islanders, specialized campaigns may well be the answer for effective island promotion. It is critical that tourism agencies responsible for marketing such scarce resources understand the need to attain full support of the locals as they are the stakeholders and ultimately the island belongs to them.

## Conclusion

What this study has established is the need for a well planned and controlled island promotion where opinions and view of the stakeholders or people of the island must be given proper consideration. Island as a tourism product is still a lucrative product for the tourism industry but an essential element in ensuring its sustainability is the realization by all relevant parties of its fragility and the need to implement effective strategies to ensure long-term survival. Island promotion can still be implemented successfully with a profound realization that this product is both unique and scarce and therefore must be managed with extra care. Thus, support from the locals is vital to ensure that planned strategies are effectively implemented and monitored and proper infra-structural development eventually brings a win-win situation to all involved.

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# **Market Performance and Regulation: A Case Study on China Airline Industry**

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## **Abstract**

**Firstly, the study will present a big picture on the evolution and background of China airlines industry regulation reform. Secondly, some comparisons are made to show the market structure change induced by the regulation policy evolution. Thirdly, using both rout-level cross-section data and time series country level data of China airline industry, some relationship between the regulation policies and market performance indicators are explored.**

## **Review on Airline Regulation Literatures**

In the past few decades, the airline industry has been one of the most frequently discussed industries in industrial economics literatures. As Borenstain (1992) said, “there was no other industry has experienced the process of dramatic change from strictly regulatory regime to the competitive market.” Before the 1980s, it was the case that extremely strict regulation exists in civil aviation in most countries. As more and more researches have shown, regulation could induce inefficiency. Keeler (1972) showed that the regulated routes tended to have much higher fares and markups. Both De Vany (1975) and Graham (1983) argued that CAB regulation tended to cause the excess capacity employed by airlines. Hendricks etc. (1997) have shown that the fixed price regulation could deter the entry of regional carrier on the spoke line hence impede the natural development in the hub-and-spoke system. Furthermore, Levine (1965) demonstrated that deregulation reform enhanced air service productivity and decreased local fares without affecting national markets in some deregulated experiments such as Texas and California in US.

With the passage of the 1978 Airline Deregulation Act in U.S., however, the commercial air transportation system was dramatically deregulated. By 1984, the number of airlines competing in national or regional markets had nearly doubled from the nineteen that had been in operation immediately prior to deregulation (Scharpenseel (2001), etc.). Studies after the 1978 reform revealed that efficiency and fare gains were concentrated on routes where true competition and network optimization unfolded, free from operational obstacles such as infrastructure congestion, hub domination by incumbent carriers, and mergers foreclosing low-to-medium density ends of the networks to competition (Hurdle et al., 1989; Kim and Singal, 1993; Liu and Lynk, 1999).

In contrast to the U.S., the EU countries have more difficulties in liberalization since the widely varied geographic and legislative differences across the EU countries. After the European Union completed its transformation into a single market in 1993, however, the large demand of this market has created an enormous challenge for the EU airline industry. The European Community took a fairly gradual way through three air transport liberalization packages and finally completed the liberalization only after the wholesome implementation of the third European air transport liberalization package of 1993 in 1997 (Morrell (1998)), which at last replaced the bilateral agreement system with a multilateral system within the EU. Scharpenseel (2001) pointed out that Europeans have been benefited from many discount fares and a network of additional routes within the E.U. However, a single aviation market across the E.U. has not yet been accomplished.

In conclusion, most economists have agreed that the deregulation lowered fares in some market hence increased the welfare of public and optimized flight distribution system in some areas. At the same time, however, some depressions of the air transport performance, such as airport congestion, flight delays, increased concerns with safety, and rising fares in less competitive markets, has been attributed to the deregulation (Morrison and Winston (1989)). In recent decades, a more intensive discussion on the optimal market structure of airline industry incurred. Findlay (1985) discussed four different approaches to regulation and corresponding effectiveness. Button (1996) mentioned that, without appropriate institutional safeguards, the technical features of the aviation market might

make it unstable. Should regulation be reintroduced? Or in what degree should the industry be regulated? Some economists began to cast suspicions on the deregulation move occurred in the end of last century (Borenstain (1992)).

In China, deregulation or liberalization of air transport has been a hot topic of the public during the last decade; however, most of the discussions were superficial newspaper and webpage articles. Among the few academic papers on China's airline regulation, Le (1997) took a deep exploration on the reform in China's airline industry, Zhang and Chen (2003) focused on the international liberalization aspect. In a report for OECD, Gonenc & Nicoletti (2000) used route-level indicators to analyze the relationship between regulation policy, market structure and infrastructure access. However, the relationships between the regulations policies and market performance of China's airline industry are remained an open problem. To fill the gap, this study attempts to create some market indicators, such as HHI on route market, Flight Frequency Concentration, Yield on specific route, and to show the relationship between regulatory policies and market performance by comparison analysis and numerical analysis. At the same time, it highlights the characteristics of airline industry that are unique to China.

## **The Evolution of Regulation Policies on China Airlines Industry**

### **State-owned Monopoly**

Before 1984, there was a monopoly state-owned carrier directly operated by the Civil Aviation Administration of China (CAAC) provide the air service to very limited clients<sup>1</sup>. Because of the capacity constraints, the CAAC had to take a censor institution. Only those qualified "applicants" can get air ticket. Meanwhile, the whole industry has suffered loss for many years. During the period of 1953 to 1978, there are 14 years in which the industry suffered loss (Shen, 1992). In 1978, the total passenger traffic was 2.31 million, among them, only 0.11 are international passengers.

### **Functional Separation and Marketization**

With 1978's economic reforms and open policy embarked, the CAAC saw prospective profit from the huge potential market. To disencumber the heavy loss and subsidy burden of civil aviation system and enforce the capability of the air industry, the CAAC submitted the *Report on Reforming the Management Structure of Civil Aviation* to the State Council (SC) in December 1984. The State Council approved the original version of the Report in January 1985. After some reviews and discussions, the SC approved the final version of the Report in January 1987. According the Report, the CAAC's administrative function are separated form its enterprising function. It was to become primarily an administrative agency responsible for formulating aviation policy and development plans, negotiating international air transport agreements, instituting technical standards for airline and airport operations, managing civilian air traffic control, issuing air operator licenses, monitoring safety and airworthiness, regulating air fares, coordinating aircraft acquisitions, setting rules on airlines' financial accounting and reporting, and supervising aviation training schools.

To frost a competitive market in the airline industry, the CAAC and central governments encourage the regional government and enterprises to invest in airlines. Several airlines invested by the regional government and companies were established (Xiamen Airlines in 1984, China Xinjiang Airlines and Shanghai Airlines in 1985, China United Airlines, Zhongyuan Airlines, Wuhan Airlines and Sichuan Airlines in 1986). According to the arrangement presented in the *Report*, six major airlines were spun off from the old CAAC between 1987 and 1991. Three of them---Air China, China Eastern and China Southern---are known as China's big three airlines. By the year of 1994, the number of airlines operating on the scheduled passenger mushroomed to 23 (see table 1a).

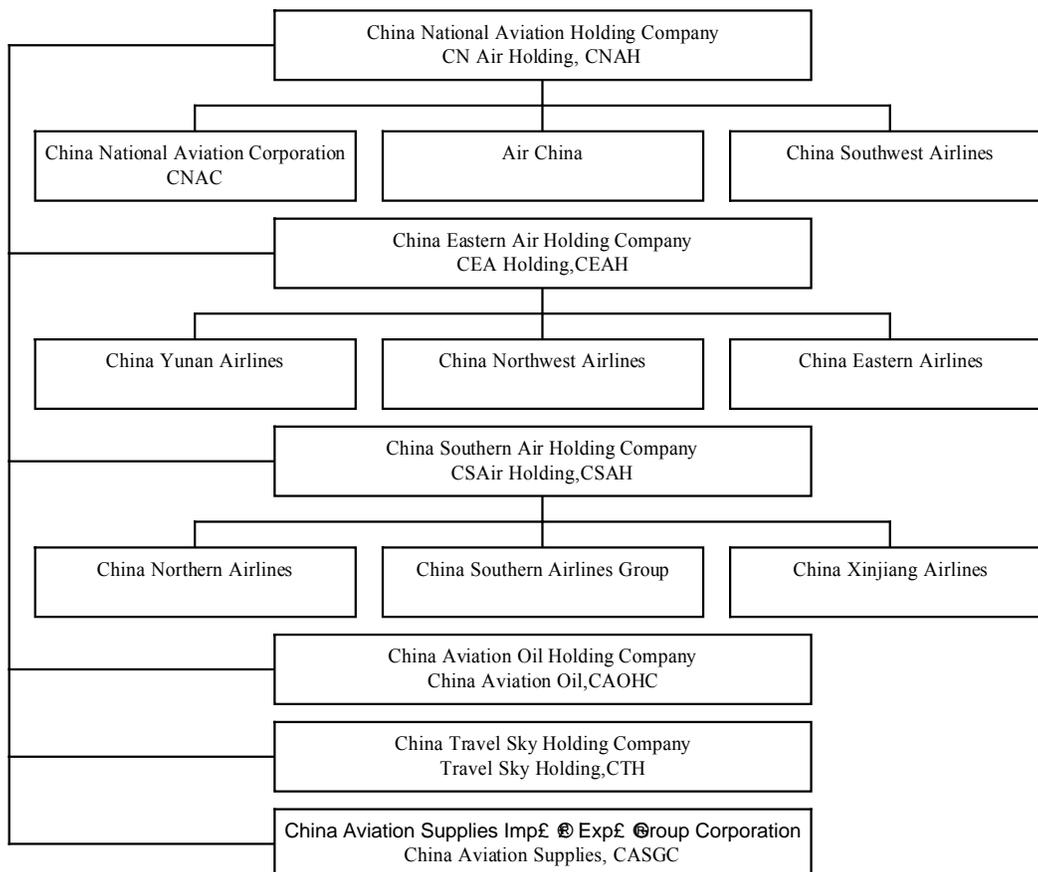
### **Consolidations and Reorganizations**

The rapidly growing number of airlines put intolerable strains on aviation infrastructures and raised concerns about the airline safety. The CAAC concerned the small size of airline as one of the major cause of loss. It began to encourage mergers and takeovers among the small airlines (e.g., Swan Airlines was take over by China Northern and Fujian Airlines by Xiamen Airlines). Six independent airlines (Hainan, Shandong, Shenzhen, Sichuan, Wuhan and Zhongyuan Airlines) were approved to pool their staff, aircrafts and ground facilities into the Xinxing Alliance

and started in 1998. By the end of 1998, there are 10 airlines under direct organization of the CAAC and 24 under the regional bureau.

However, the number of airlines is still higher than the optimal level in the CAAC's point of view. The CAAC believes that a more intensified consolidation will help the airlines develop a reasonable hub-and-spoke route system and reinforce the competitive capability of Chinese airlines hence be beneficial to growth of the whole industry. In January 2002, it issued the *Scheme on Civil Aviation System Reform* to conduct a move of reorganization and consolidation among the airlines and aviation companies under its direct organization. The reorganization was finished in October 2002. As Figure 1 shows, six big aviation groups are formed to replace the former civil aviation companies under the direct organization of the CAAC. At the same time, the CAAC also welcome the regional airlines attending the move. Among the six big civil aviation holding companies, the three big holding companies (CN Air Holding, CEA Holding and CS Air Holding) are integrated airlines of the nine former airlines under direct organization of the CAAC and some regional airlines (see Table 2 in Appendix 1). According to the Scheme, individual airlines in the three big Air Holdings will pool their staff, aircraft and ground facilities together, operat all their transportation service under a single sign (of the core airline of each Air Holdings). However, the name of former airlines can remain unchanged.

Figure 1 China's big 6 aviation groups after the 2002 consolidation and reorganization



Source: Author compiled based on *LiuDaJiTuanZuJianFangAn(ZhaiYao)* (the Scheme on Civil Aviation System Reform (Digest)), CAAC Journal, 2002, Special Report.

### Price Regulations

As shown in the following table, the CAAC has been taking a gradual liberalization policy on China's domestic scheduled passenger air transportation. It experiments then reviews the aftermaths, but make actions continuously. Before 1992, air fare was under strictly regulations of the governments (the State Development Planning Commission (SCPC) and the CAAC). Every a few year, the government adjusted the fare level slightly, and airlines just applied them into the operation.

In 1992, the CAAC released the pricing regulation<sup>ii</sup> for the first time by setting a flexible range ( $\pm 10\%$ ) around the baseline fare. With the capacity and number of airlines growing more quickly than the growth of demand<sup>iii</sup>, price-cutting competition broke out and depressed airlines profits. According to a Statistics on the Managerial Level of the Air Carriers in 1995, 15 out of 24 airlines suffered loss. Some small airlines suffered continuous loss. At the same time, the illegal ticket agency and kickback was becoming a more and more serious problem. In 1996, the CAAC abolished the 20% fare change zone. But it did not stop its step to liberation. In 1997, a more flexible "Multiply discount based on the single fare" policy was issued. Airlines are allowed to use different discounts to different clients depending on the route and season within the 60% maximum discount zone. However, the kickback problems came again. Concerning the difficulties in practice for customers to distinguish the permitted discount and the illegal discount, the CAAC abolished the 1997 price regulation policy in 1999.

On the other hand, with the economic and tourism activities growing vividly, people are more and more likely to use air transportation. However, the comparative fare level of China air service is considered as much higher than that of the rest part of the world. As Table 1 show, the comparative air fare of China is almost higher than that of all the rest countries (apart from Africa). On the contrary, the ratio of maximum fare and minimum fare is quite low. This means that the price range is quite narrow. As a rule of thumb, the differentiated price system is a powerful means for airlines to win the market. With the date of China's entry into WTO coming closer, the CAAC felt pressure to enhance Chinese airlines' competitive capability. It began to take some policy experiments. The discount ticket policies were allowed to give to tour groups on Hainan consolidated routes (operated by members of XinXing Alliance). Then the experiment was spread to the tour groups on all the rest routes 2 years later.

The most recent Scheme was issued by the SCPC and the CAAC in March 2004. It redefined the discount zones. Airlines are allowed to discount 45% of the baseline fare or overcharge 25% of the baseline fare (0.75 per RPKm). And monopolist airlines are only subject to the upper limitation.

TABLE 1: THE COMPARATIVE AIR FARE LEVEL

Country /Region	Fare** (dollar/rpk)	GDP per capita (dollar)	Minimum Fare/ GDP per capita(%)	Maximum Fare/ GDP per capita(%)	Maximum Fare / Minimum Fare
China	0.04-0.12	1000	4.00	12.00	3.00
US	0.10-0.84	30000	0.33	2.80	7.50
Europe	0.14-0.78	20000	0.70	3.90	5.57
Oceania	0.10-0.50	15000	0.67	3.33	4.71
South America	0.08-0.56	7000	1.14	8.00	7.27
Africa	0.05-0.12	400	12.5	30.00	3.00
Japan	0.20-1.60	35000	0.57	4.57	8.00
Korea	0.12-0.80	8000	1.50	10.00	6.67
India	0.04-0.15	800	5.00	18.75	3.73
China (PPP*)	0.12-0.40	3320	4.00	12.00	3.00

Note: \* PPP data is based on that of IMF in 2001.

\*\* Fare here refer to the fare level apply to the 1000 km route.

Source: Li & Deng (2004)

TABLE 2: THE EVOLUTION OF FARE LEVEL AND PRICE REGULATION POLICIES IN CHINA AIR TRANSPORTATION

Year	Nominal Fare		on 1978 Fixed Price		Regulation Policies
	Non-peak	Peak	Non-Peak	Peak	
early 1950's	0.2	0.3			Before 1992, air fare was set by the former National Price Administration and the CAAC. Airlines were absolute price takers.
1974	0.05	0.07			
1985	0.084	0.144	0.07	0.11	
1986		0.19		0.14	
1987	0.11	0.24	0.08	0.16	
1988		0.24		0.14	
1989	0.2	0.32	0.1	0.16	
1990		0.32		0.15	
1991	0.308	0.354	0.14	0.17	
1992		0.41		0.18	
1994	0.49	1.01	0.16	0.33	
1996		1.01			The CAAC began to set air fare with the coordination of the former State Planning Commission (i.e. the current State Develop Planning Commission) instead of the former National Price Administration. The 20% allowable discount range was abolished. Average fare increased by 20% on 1 <sup>st</sup> February, and by 6% on 28 <sup>th</sup> July.
1997		1.01			The CAAC issued a "multiple discount based on one fare" policy. Airlines were allowed to sell ticket on different discounts.
1999		1.01			The CAAC abolished the ticket discount policy again
2000		1.01			The CAAC started ticket discount experiment to tour groups on consolidated Hainan routes on 15 <sup>th</sup> May. Since 1 <sup>st</sup> October, the carriers on spoke routes were permitted to set their own fare level subject to a fare ceiling of 10% higher than the baseline fare and submit their fare data to the CAAC.
2001		1.01			An extra oil charge up to 15% of the fare or no more than 150 yuan per trip was enacted since 5 <sup>th</sup> November. At the same time, airlines were allowed to increase their fare by up to 3% as the domestic oil price increased by more than 10%.
2002		1.01			The CAAC started another ticket discount experiment to tour groups on all domestic routes on 10 <sup>th</sup> June.
2004	0.3	1.01			<i>MinHangGuoNeiHangKongYunShuJiaGeGaiGeFangAn</i> (the Scheme on the Price Reform of Domestic Air Transportation) was issued by the State Develop Planning Commission and the CAAC on 17 <sup>th</sup> March and was enacted on 20 <sup>th</sup> April.

Source: Fare data of 1950 to 1994 are selected from Zhang (1998), other fare data are selected from Li & Deng (2004).

## Comparison Analyses on the Scheduled Passenger Market

### Radical Increase of Market Concentration

Table 1 and 2 in Appendix 1 show the change of passenger airlines market structure in China during the last decade (1994 to 2003). The total number of independent operators in the market has increased only by one, from 23 to 24. However, the structure has changed a lot. Some airlines disappeared, having been taken over (e.g., China Great Wall, Zhongyuan, Fujian) or stopped by the CAAC (e.g., China United Airlines was required to stop operation by CAAC in 1998 because of its Army Force background. It actually stopped operation in 2003 and was taken over by

Shanghai Airlines in the next year). Also, there are new started airlines (e.g., Zhuhai Airlines, which was held equity by China Southern and Greene Group, a electronic appliance manufacturer).

In this decade, the concentration degree of the market has increased rapidly. Under the encouragement of government, many small airlines have been taken over by larger ones. Especially, the recent consolidation and reorganization move among the CAAC directly organized airlines has squeezed the number of airlines directly organized by the CAAC by 1 to 3 ratio (from 9 in 1994 to 3 in 2003). As the table 1 shown, the big 3 airlines (Air China, China Southern, China Eastern) has increased their market share by more than 20 percentage (from 53.89 in 1994 to 75.60 in 2003). It is worth to note that, this percentage is slightly lower than the big 6 market share in 1994 though the number of airlines incorporated into the big 3 actually more than 6. This might do things with the even more rapid growth of regional airlines, such as Hainan Airlines and Shandong Airlines. Hainan Airlines, the first Sino-US joint airlines in China, has increased its market share by 6 times (from 1.25 in 1994 to 8.11 in 2003), and been called “the Fourth Polar” in China’s airlines industry. Meanwhile, Shandong Airlines, a small regional airline has increased its share from almost null to 2.01%.

During empirical analysis of market concentration, a more formal index about the market concentration degree is Herfindahl-Hirschman Index (HHI), which is obtained by squaring each airlines’ market share (in percentage terms) and adding the squared values. Without concerning the consolidations and takeovers among airlines, i.e., calculate the HHI using the market share of each individual airlines, the HHI of 2003 (1234.85) was even 73.39 lower than that of 1994 (1308.24). This means that, without the conduction of consolidation, the market were actually taking a de-concentration tend. However, under the vivid arrangements and incentives of the CAAC and other government sectors, a move of consolidations and mergers has largely increased the concentration degree. The HHI of 2003 (2044.85) increased 736.61 comparing to that of 1994. The total merger and consolidation related HHI equals to 809.99. Both the post-merger HHI index and the merger-related HHI are much higher than the maximum limitation<sup>iv</sup> that likely to incur an antitrust sue in some west countries.

Another comparison based on route level data illustrates the increase trend of market concentration degree in a more detailed way. It is shown in Table 3 in Appendix 1. During the period of 1992 to 1997, it shows that, the number of airlines operating on each route has taken a trend of increase. But the number declined during the consequent six years (1997 to 2003). Whereas, the weekly flight frequency maintained a trend of increase during the two consequent periods. From 1992 to 1997, the weekly flight on each route has increased by at least twice. And it has increased even more times during 1997 to 2003. On the route from Shanghai to Xiamen, the weekly flight has increased by more than 20 times in the last 11 years (1992 to 2003). The last three columns in table 3 show us the weekly flight frequency of each airline on the route. We can see that, apart from those airlines who has exited the market, almost all incumbent airlines input more flights on each route than past. Obviously, the capacity of airlines has increased rapidly.

#### **Concentration Degree And Fare Level**

Combining the change of HHI and concentration degree with the fare level data displayed in table 2 and the yield (fare per km) displayed in the table of Appendix 3, we can see that, fare level didn’t go up with increase of the concentration degree. The floor fare of 2003 (0.30) is even lower than that of 1994 (0.49). And the yield in 1994 was 5.54 while it declined to 4.82 in 2003. This extraordinary feature in China’s air service market might largely due to the strictly price regulation of the CAAC. Besides, concerning that airlines might sell discounted ticket to passengers, the fare level displayed in table 2 might not equal to the real fare used in price calculation. However, as the former section has mentioned, the discounted ticket was under the strict regulation of the CAAC. Thus the actual impact of discounted ticket can be considered as ignorable.

A reasonable guess about the China airline industry can be drawn from this comparison, airlines actually are not able to control the market price even with the concentration degree getting quite high. This means that the competition in China’s airline industry under price regulation might be similar to a Cournot competition. However, to prove this point, more studies on the pricing action of airlines have to be done. This goes beyond the extent of this paper.

There are two probable reasons. One might be that the CAAC has put strict constraints on the price level (note that the maximum limitation is tighter than the minimum limitation) could charged by airlines. I would like to call it “regulation element”. However, the “regulation element” is far from enough to interpret the problem. As you

might notice that, the CAAC actually has been trying to control the discount level of ticket since 1992's price regulation release. There must be another more significant element that is impacting the airlines' pricing action. This is related to the characteristics of the demand of air service. As a rule of thumb, transport demand can be a continuously random variable, while the capacity of airlines is comparatively fixed (at least in short term). To satisfy the demand at a high ratio, airlines usually tend to invest excess capacity to handle the peak-time demand. Thus, excess capacity is actually quite popular in airlines industry. Success airlines are those who have highly ability to manage their excess capacity. In China, with the marketization and corporatization getting deep, the investment on airlines, aircrafts and ground facilities has multiplied. Thus, with the flight capacity growing rapidly, it has overstep the demand under the strictly price policy of CAAC.

Actually, as the data in Appendix 3 shown, the increase rate of capacity is higher than that of demand in the same period. This is also reflected by the continuously decreased (with very few exceptions) average load factor on domestic passenger routes.

## Numerical Analysis

To explore more relationships between the market structure and the performance, I did some simple regressions using both route-level and country level time series data. However, due to the limitation of the data, many result are not significant enough. I choose two here to help identify some interactions between the market elements and regulation elements.

### Regression Result 1: Relationship between Fare Level and Concentration Degree (Based on Route Level Data)

Using the route level data, take natural logarithm on each variable. Then run a regression (ln(fare) on a constant, ln(distance) and ln(concen)). The data set used can be seen in Appendix 2.

The result is shown as below.

Source	SS	df	MS	Number of obs = 26
Model	.374647037	2	.187323519	F( 2, 23) = 53.24 Prob > F = 0.0000
Residual	.080920397	23	.003518278	R-squared = 0.8224 Adj R-squared = 0.8069
Total	.455567434	25	.018222697	Root MSE = .05932

lnfare	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
lnadis	-.2315547	.0266873	-8.68	0.000	-.2867617 -.1763477
lnconcen	.0646946	.0394666	1.64	0.115	-.0169483 .1463374
_cons	.8774962	.4290881	2.05	0.052	-.0101401 1.765132

Note: lnadis denotes ln(distance), lnconcen denotes ln(flight concentration index), cons denotes the constant.

Flight Concentration Index (FCI) are calculated by the following formulation:

$$\text{Flight concentration Index} = \sum (\text{flight frequency of each airlines} / \text{total no. of flight per week on the route})^2$$

From the regression result, we can see:

- Fare is highly dependent on the distance of the route, the negative sign of coefficient means that the fare will decline with the increase of distance. This is coincided with the rule of "taper with distance". That is, there are significant economies of distance in air transportation.
- Because the HHI on route level is unavailable, I use this Flight Concentration Index, which is similar to the HHI, but replace the market share by the share of total flight per week. Usually the airlines with larger flight supply on a route will have higher output. The regression of traffic on flight frequency and capacity also support this. Thus the FCI can be used as a representative of the HHI.
- The variable of Flight Concentration Index is not very significant. However, it is still reasonable to say that the fare level has some positive relation with the concentration degree of the route market. However, given

that the FCI is sufficient to represent the concentration degree, the contribution from concentration index to the change of fare is quite slight.

**Regression Result 2: Relationships between Load Factor and Output, Income (Based on the Time Series Data)**

Using country level data. Take natural logarithm on all the observations. Run regression on passenger load factor, GDP per capita, revenue passenger tonnage and yield. (where, yield = fare / distance). The dataset see Appendix 2. The result of regression is shown as below:

Source	SS	df	MS	Number of obs = 18		
Model	.349240103	3	.116413368	F(3, 14) =	35.06	
Residual	.046487736	14	.003320553	Prob > F =	0.0000	
				R-squared =	0.8825	
				Adj R-squared =	0.8574	
Total	.395727839	17	.023278108	Root MSE =	.05762	
lgplf	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lngdpperca~t	-.6473751	.1569057	-4.13	0.001	-.9839042	-.3108459
lnrpts	.4240025	.142936	2.97	0.010	.1174352	.7305698
lnyield	.0808959	.089889	0.90	0.383	-.1118967	.2736886
_cons	3.038599	1.003512	3.03	0.009	.8862793	5.190919

Note: lngdpperca~t denotes ln(gdp per capita), lnrpts denotes ln(revenue passenger tonnages), lnyield denotes ln(yield), where, yield = fare / distance, and cons denotes the constant.

From the result, we can find out that,

- Passenger load factor is negatively related to GDP per capita, and the relationship between this two variables are quite significant. This in certain degree reflects the fact that flight capacity is growing more quickly than air demand. Thus support the conclusion that airlines consolidation didn't raise fare level mostly because of excess supply rather than price regulation.
- When load factor be considered as an indicator of service quality (the lower the load factor, the higher the availability of the service), this means that the requirements for higher quality service will increase with the growth of people's income.
- Passenger load factor is positively related to the total revenue passenger tonnages. This is easy to be justified. When more and more people take airplane, given the capacity fixed in short term, the load factor will go up.
- Yield is not significant.

**Conclusions**

The regulation regime in China's airline industry has witnessed a continuous and gradual process of reform to liberalization. During this gradual process, the reform displays quite a few features that are unique to China. It is very difficult to directly borrow west principles to fit the Chinese practice. This paper did some analysis based on the available facts and data.

The primary finding is that, the CAAC's incentive policies to takeovers and consolidation, especially the 2002 Reform Scheme, has contributed largely to the increase of concentration degree in China's schedule passenger market. The extraordinary result is that, because there is comparative excess supply/capacity (under the current regulated price level), airlines cannot impact the market price. The results of two regressions also support this argument. (The numerical study did not see significant relationship between fare and concentration index. The load factor is declining with the increase of income, which implies that there is excess supply.)

By the end of 2004, it is said that China's airline industry finally recovered from its continuous loss and enjoyed an 8.69 billion RMB profit. This profit equals to the sum of the industry's profits in the last ten years. Because of enact of the 2004 Scheme on Price Regulation Reform, airlines were able to attract more passengers by more flexible price mixture. This has increased the average passenger load factor to 71%, about 5 percentages higher

than that of 2003. This might be considered as a fact support the finding of this paper. However, the effect of the 2004 Scheme of price regulation reform remains as a topic of another paper.

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## Appendix

APPENDIX 1: TABLES OF THE COMPARISON ANALYSIS  
TABLE 1: MARKET STRUCTURE IN 1994

Airlines	RPKs(10,000pkm)	Market Share*(%)
Under direct organization of CAAC		
Air China	1179200	21.58
China Southern Airlines	1073663	19.65
China Eastern Airlines	691463	12.66
Big 3 Concentration		53.89
China Southwest Airlines	584809	10.70
China Northwest Airlines	273825	5.01
China Northern Airlines	540717	9.90
Big 6 Concentration		79.51
China Xinjiang Airlines	251443	4.60
China Yunnan Airlines	167120	3.06
China Great Wall Airlines (was taken over by China Eastern in 2001)	14778	0.27
under organization of Regional Bureau		
Xiamen Airlines	210614	3.86
Shanghai Airlines	131085	2.40
Sichuan Airlines	98987	1.81
Hainan Airlines	68111	1.25
China United Airlines (Stopped operation in 2003, was taken over by Shanghai Airlines in 2004)	50285	0.92
Shenzhen Airlines	41308	0.76
Wuhan Airlines	38504	0.70
Xinhua Airlines	30590	0.56
Zhongyuan Airlines (was taken over by China Southern in 2000)	7353	0.13
Changan Airlines	1313	0.02
Fujian Airlines (was taken over by Xiamen Airlines)	3555	0.07
Guizhou Airlines	3915	0.07
Nanjing Airlines	687	0.01
Shangdong Airlines	2	0.00
Total RPKs	5463327	
HHI*		1308.24

TABLE 2: MARKET STRUCTURE IN 2003

Airlines	RPKs(10000pkm)	Market Share*(%)
Air China (CN Air Holding)	3347703.3	26.50
China Eastern Airlines	1610422.3	12.75
China Eastern Xibei Airlines (was taken over by China Eastern in 2002)	382439.2	3.03
Nanjian Airlines(was taken over by Northwest in 1997)	15481.6	0.12
China Eastern Yunnan Airlines(consolidated with China Eastern in 2002)	396346.8	3.14
China Eastern Airlines Jiangsu(was held equity by China Eastern)	189848.8	1.50
China Eastern Airlines Wuhan (was held equity by China Eastern)	179342.8	1.42
CEA Holding Total	2773881.5	21.96
China Southern Airlines	1836750	14.54
China Northern Airlines(consolidated with China Sourthernin 2002)	817921.3	6.48
Northern Air Sanya(consolidated with China Southern in 2002)	88889.9	0.70
China Southern-Xinjiang Airlines(consolidate with China Southern in 2002)	409477	3.24
Southern Air Shantou(hold equity by China Southern)	65875.4	0.52
Guizhou Airlines(consolidated with China Southern in 1998)	77800.9	0.62
Guangxi Airlines(was held equity by China Southern)	55485.4	0.44
Zhuhai Airlines(was held partial equity by China Southern, start in 1995)	76059.5	0.60
CS Air Holding Total	3428259.4	27.14
Big 3 Total		75.60
Hainan Airlines	425515.1	3.37
Shanxi Airlines(was held majority equity by Hainan in 2001)	105734.8	0.84
Changan Airlines(was held partial equity by Hainan)	80728.3	0.64
Xinhua Airlines(was consolidated with Hainan in 2001)	411912.8	3.26
Hainan Total	1023891	8.11
Big 4 Total		83.71
Xiamen Airlines	526763.6	4.17
Shanghai Airlines	549113.8	4.35
Shenzhen Airlines	455793.3	3.61
Sichuan Airlines	273006.5	2.16
Shangdong Airlines	253440.7	2.01
Total	12631853.1	
HHI without Takeovers and Consolidation		1234.85
HHI After Takeovers and Consolidation		2044.85
Merger and Consolidation Related HHI		809.99

Note:

\* Market Share is obtained by dividing each airlines' RPKs by total RPKs.

\*\* HHI, "Herfindahl-Hirschman Index", is obtained by squaring each airlines' market share (in percentage terms) and adding the squared values.

Source: CAAC, *Statistical Data on Civil Aviation of China*, 1995, 2004.

Website of each airline



TABLE 3: A ROUTE-LEVEL COMPARISON

Route	No. of Airlines			Flight Frequency			Airlines and their Weekly Frequency		
	1992	1997	2003**	1992	1997	2003*	1992	1997	2003*
Beijing-Shanghai	3	6	5	34	107	238	CA(14),MU(16),SF(4)	CA(32),CJ(7),MU(32),SF(26),WH(7),XO(3)	CA(77),FM(42),MU(91), XW(28)
Beijing-Guangzhou	3	5	3	39	72	108	CA(11),WH(10),CZ(18)	CA(17),CZ(40),SF(2),WH(10),XO(3)	CA(42),CZ(52),XW(14)
Guangzhou-Shanghai	4	3	4	30	59	103	CA(2),CZ(14),MU(14),SF(7)	CZ(28),MU(21),SF(10)	CA(40),MU(28),FM(35),
Shenzhen-Beijing	2	5	6	14	36	140	CA(3),CZ(11)	CA(9),CJ(5),CZ(9),HK(3),4G(10)	CA(35),WH(2),CZ(42),CJ(14),XW(7),ZH(40)
Beijing-Chengdu	1	4	4	11	55	108	SZ(11)	CA(9),CJ(2),SZ(29),3U(12),	CA(17),SZ(46),3U(31),XW(14)
Guangzhou-Haikou	1	4	4	21	25	188	CZ(21)	CZ(20),H4(18),SF(2),CZ(3)	CZ(84),SZ(2),HU(100),WU(2)
Guangzhou-Chengdu	2	3	3	17	47	66	CZ(4),SZ(13)	CZ(14),SZ(21),3U(12)	CZ(14),SZ(36),3U(16)
Beijing-Shenyang	2	2	3	7	25	90	CA(4),CJ(3)	CA(3),CJ(22)	CA(27),CJ(56),XW(7)
Beijing-Xian	2	4	4	19	41	89	CA(3),WH(16)	CA(11),SZ(2),WH(27),2Z(1)	CA(28),WH(41),XW(14),2Z(6)
Chengdu-Shanghai	2	3	5	9	35	69	MU(4),SZ(5)	SF(5),SZ(18),3U(12)	SZ(27),MU(7),FM(14),3U(21),
Shanghai-Xiamen	1	7	3	3	49	71	SF(3)	MF(7),MU(10),SF(7),SZ(2),CA(9),CJ(5),CZ(9)	MU(28),MF(28),FM(15)

Note:

\* denotes to the direct inbound flights per week during the period from May 28 to October 23, 2003.

\*\* denotes to the airlines who were licensed to operate on the consequent route during the period from May 28 to October 23, 2003.

Airlines Codes: CA(Air China), CJ(China Northern), CZ(China Southern), FM(Shanghai Airlines), HK(Swan Airlines), HU/H4(Hainan Airlines), MF(Xiamen Airlines), MU(China Eastern), SC(Shandong Airlines), SF(Shanghai Airlines), SZ(China Southwest), WH(China Northwest), XO(China Xinjiang), XW(Xinhua Airlines), ZH(Shenzhen Airlines), 2Z(Changan Airlines), 4G(Shenzhen Airlines), 3Q(China Yunnan), 3U(Sichuan Airlines).

Source: Compiled from The Ticket Booking Information System on [www.caac.cn.net](http://www.caac.cn.net) (ZhongGuoMinHangXinXiWang)





## End Notes

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<sup>i</sup> From 1950 to 1953, there were two airlines in China and was operated by the Civil Aviation Bureau (CAB, the predecessor of the CAAC). In 1954, the two airlines were combined into a state-owned monopoly and the CAB was replaced by the CAAC (Le, 1997).

<sup>ii</sup> The price of air ticket in China is calculated by the general formula: Price = minimum price + fare\*distance. Current minimum price is 80 yuan for all scheduled routes. Thus the real ticket price will be decided by the fare and discount applied. For example, the economic class ticket price from Beijing to Shanghai can be calculated from:  $1178(\text{distance}) * 0.76(\text{fare}) + 80(\text{minimum price})$ , that is 975.28. When passenger go to the ticket office, he/she will get a ticket at discounted price plus tax and oil adjust charge.

<sup>iii</sup> Note that the demand in this paper should be considered as the demand level under specific price level, i.e., the regulated fare level. This might be unique to China. However, the state can be quite different without the price regulation.

<sup>iv</sup> In US, under the 1984 DoJ merger Guidelines, for markets with post-merger HHI indices above 1800 and a merger-related increase in the HHI exceeding 100, an antitrust challenge was deemed likely, and only in “extraordinary cases” would it be concluded “that the merger is not likely substantially to lessen competition.”

# **Media Transition in Post-Soviet Kazakhstan: Privatisation, Regulation & Oligopoly**

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## **Abstract**

**In tracing how the television industry has developed in a transitional economy within Central Asia this paper addresses the general lack of knowledge on its media scene. Through face-to-face interviews with industry executives and utilising secondary data obtained in-country and beyond, this paper documents the evolution of Kazakhstan's media policy in the post-Soviet era. It analyses the creation of a media oligopoly through interlocking ownerships and reinstatement of authoritarian controls after short-lived media freedoms. The author examines also the interplay of political influence and economic imperatives in cultural production and distribution. As with many other transitional economies, the media industry has not contributed to political freedoms, plural ownership, civil society and democratisation in relatively moderate Kazakhstan.**

## **Introduction**

Much has been written and researched about media in the former Soviet Union states and satellites in Eastern and Central Europe, yet little attention has been paid to its former Central Asian states. Doubtless this is because they are seen as smaller markets and more distant and impenetrable, both geographically and culturally. Given the dearth of published material on this long-closed and thus neglected region, at least in the developed world, any contribution to knowledge of it would prove valuable, and an understanding of its media should provide some insight into the dynamics of its culture, society, politics and economics. Kazakhstan is the largest of the Central Asian countries, possibly the wealthiest, most Russian/European and politically moderate, and thus a good starting point for understanding the developments and trends in the region.

## **Comparative Media Systems**

In analysing the media of post-communist Eastern Europe, Downing [1] adopted a political science perspective to understanding the parallel political and cultural changes. Television had the distinct advantage to the communist leadership, he argued, of being a one-way medium from top-down, which could carry a standardised message throughout the nation and that intruded into the homes of the masses. Thus it was self-published 'small media' of typed sheets and audio-cassettes, and informal media of graffiti, tee-shirts and student theatre that helped maintain dissenting alternative perspectives. However in the period of transition to democracy and independence, it was television once again that politicians turned clumsily to, though analysis of consequent media laws and news content does not yield the full story of the new politics and economics involved.

In Russia, the first private station was established in 1993 on an 'experimental basis', namely NTV which became a major broadcaster known for accurate news. In the absence of an organised opposition in pre-1989 Bulgaria, the fall of totalitarian regimes in other parts of Central and Eastern Europe stimulated street protest. This slowly led the media to deviate from their past ways of reporting and instead play a new role as stimulator of political reform [2]. However liberalisation of the television began only in 1994 with both local commercial television and unregulated satellite/cable channels becoming accessible. Unlike other transitional economies in Europe, public television in Estonia maintained its dominant market position after the arrival of commercial stations because of its commitment to original local programming [3]. Free-to-air retransmission of Russian television was gradually replaced by Estonian domestic channels, though these also broadcast partly in Russian including news, breakfast television and prime-time serials. Meanwhile satellite and cable television mainly from Russia was accessible via four local providers to 41 percent of the Estonian population by 1997.

Believing that a free-market in broadcasting allows all opinions is naïve, given differential consumer access and profit-maximisation by owners, says Splichal [4]. He argued that the media need regulation to perform their role as public fora in democratic societies, balancing civil society and public service interests against capital and political power. Although re-regulated nominally in line with 'Western' norms, the privatised, transnationalised media in the transitional economies of Eastern Europe are not necessarily instrumental to democracy but subject to political and economic manipulation. Given the different history of takeover by communists of many Eastern European and ex-Soviet states in the early 20th century and paths to independence in the early 1990s, there is considerable variation in the development of their media industries. Drawing on first-hand interviews and secondary data collected in-country and abroad, this paper will document the experience of Kazakhstan over its first decade and a half since the demise of communism.

## **Historical Background**

### **Past Geo-Politics**

Geographically the region of Central Asia roughly demarcated by the Caspian Sea in the west, Iran and Afghanistan in the south and Russian in the north, and China in the east. From the early 18th century the Russian Empire had extended its control over the Asia steppes, used by the largely nomadic Turkic tribes, through diplomatic and trade means [5]. When there were periodic uprisings, successive Tsars resorted to military conquest and colonisation of the region, with due respect afforded to cultural and religious traditions. The Islamic faith was a unifying factor among all the Central Asian peoples and the launch-pad for various movements for autonomy and independence in the 18th and 19th century. However, intellectuals leading the political movements were in favour of a pan-Turkism as an alternative to westernisation and pan-Islamism, some of them flirting with socialism.

The abdication of the Tsar raised hopes of independence and following their later take-over the Bolsheviks had initially pledged equal sovereignty and self-determination for all nations of the former empire. Lenin had argued that nationalisms as a reaction to capitalism would be replaced by internationalism as socialism gained ascendancy. But Stalin, who came to power in 1924, advocated the establishment of nations with a shared official language and territory. Consequently, the region that had once held such names as Turkestan, Bukhara and Khorezm underwent radical territorial reorganisation that was to result in Kazakh, Uzbek, Kyrgyz, Tajik and Turkmen Soviet republics that are the predecessors of the current nation-states. Soon after the redistribution of lands previously owned by Russian colonisers to the landless was superseded by collectivisation and settling of nomadic peoples [6]). Khrushchev who succeeded Stalin, was determined to make the USSR self-sufficient in grain and meat, and Kazakhstan was selected to have millions of hectares of grazing land converted to this task. To create this 'miracle' came settlers from Russian, Ukraine and Germans, who were resented by the native Kazakhs and this fuelled further calls for cultural autonomy.

### **Recent Polity and Economy**

The agitation came to a head under 'perestroika' era of Gorbachev when a repressive Russian apparachik was appointed as party head in Kazakhstan. Subsequent riots and their putting down led to the appointment of a Kazakh national Nazabayev as party leader, who was to push for the formation of the Commonwealth of Independent States to replace the Soviet Union [7]. Despite claiming to advocate democratic reforms, Nazabayev was to extend his tenure, first via a referendum in 1995, then legislative amendments to the constitution and finally through an election in 1999. In that election the key opposition candidate was banned and, upon his self-imposed exile, sentenced to 10 years imprisonment. Subsequent attempts to mount serious political opposition have also been subject to similar harassment. Still, supporters of Nazabayev claim that he has been instrumental in preserving inter-ethnic peace and political stability through the difficult years of economic reform [8].

Economically, the country continues to cope with declining high unemployment, poverty, inflation, prostitution, drug addiction and aids. Infrastructure is declining while pollution remains a tragic consequence of the Soviet Union's nuclear testing, space exploration, draining of the Aral Sea for irrigation and toxic dumping on its soil. Nonetheless the country is rich in mineral resources, particularly oil in its west bordering the inland Caspian Sea, though until recent years the lack of export pipelines from this largely land-locked country have been an

impediment to its export. Culturally, the country comprises largely Kazakhs who make up 53 percent of the population, and Russians totalling about 30 percent and declining through migration due to discrimination since the collapse of the Soviet Union. Independence has seen the renaissance of Kazakh language and culture through government policy, although Islamisation has been resisted in favour of secularism and freedom of religion. The Kazakhstan government has in recent years had a successful track record at negotiating long-standing disputed borders with neighbouring Russia, China, Uzbekistan and Kyrgyzstan [9].

## Post-Soviet Media Development

### Short-lived Freedoms

In the immediate post-independence period, the many new commercial television stations and newspapers competing with state-owned media gave their journalists and opposition politicians freedom of expression. Given the ideological vacuum prevalent then, these media were critical to the formation of public opinion but this was threatening to government officials unaccustomed to criticism and dissent. The government responded by forming a new television station called Khabar (meaning 'News') in addition to two existing state channels. It then compelled the cessation of free-to-air broadcasting by Russia's public broadcaster ORT and a Russian commercial broadcaster RTR, which had reported on cases of state corruption [10]. By 1997, all Russian channels were available solely via cable subscription, and by 1998 major domestic channels were being drawn into a network of corporations associated with the political elite in Kazakhstan.

A decree in 1996 required that the private channels that had been started since independence tender for a license but the high prices charged compelled about 20 of those channels to shut down, among them a number that had been critical of the government. By 1999, the government had ceased to conduct tenders, despite promises to the contrary [11]. When the state media were converted by government decree into a joint-stock company in 1996, the president's daughter, Dariga Nazabaeva, purchased its shares. Thus she came to control the state news agency Khabar as well as three television and two radio stations. Meanwhile her husband Rhakhat Aliev has gained control of the Karavan media group which owns the largest private newspaper of the same name, KTK television station, radio stations and a major publishing house [12]. However according to law enacted, criticism of the president and his family were deemed seditious and forbidden.

The 1999 Media Law required that by 1 January 2002 the broadcast of foreign mass media was not to exceed 50 percent of the total volume on television and radio, and by 1 January 2003 the limit would be 20 percent [13]. While this stipulation was justified as part of the promotion of Kazakh language and culture, it was allegedly arbitrarily applied to harass stations into complying with censorship guidelines or face closure [14]. In 2001 the Kazakhstan government enacted new laws that treated Internet sites as mass media. The rationale given in parliament was the development of the quality of local journalism and the reduction of dependence on foreign sources. But it was believed to be really in response to local journalists the reprinting of articles found on-line published by Western press, alleging corruption in government [15].

## Industry Structure

### National Television Networks

A number of stations, both public and commercial, enjoyed near nationwide penetration (Table 1) while others were centred on the commercial capital Almaty or other provincial capitals. Most channels were of domestic origin while a few were of Russian pedigree but adapted for Kazakhstan:

*KhabarTV:* The leading television broadcaster, commercial or otherwise, in Kazakhstan is Khabar TV which sold the programming it produced to other stations [16]. It was part state-owned and run by the daughter of the president of Kazakhstan, Nazabyeva. The president's daughter had inaugurated Khabar as something novel but government control was extended over it, though not formally but indirectly. For instance, it taught Kazakh and English languages in support of the government policy, and included programmes about museums and theatre in addition to light entertainment (Interview Kaz09). Khabar TV was classified as 'social television' by one respondent

who believed it was wholly government-owned, just as Kazakhstan-1 was [17]. In fact it was reported to be a closed joint-stock company but that its stocks belonged to the committee for state property [18].

*Kazakhstan One:* Of the terrestrial national broadcasters, Kaz One had a 98 percent audience reach in Kazakhstan, ORT 89 percent and Khabar TV 85 percent in 2002 according to the social research firm of Concom Eurasia. This figure differed somewhat from that reported by the media research firm Gallup [19]. Kaz One, the public broadcaster had technically the highest penetration in the country but in reality had low viewership because most of its programming was considered dull.

*ORT Kaz:* ORT-1 was the leading Russian-language channel in Kazakhstan by ratings and was also believed to be controlled by Khabar Agency. Many of its talk-shows, game-shows and interview programmes are cloned from western formats. While copyright laws existed in Kazakhstan, they were deemed ineffective [20]. ORT Kaz was produced in Russia but was not broadcast 'live'. Instead it was re-broadcast after a two-hour delay which allowed for the insertion of Kazakhstan advertising, news, weather and so on. Though ORT was not state-owned, it came under strong political influence in both Russia and Kazakhstan [21]. Since ORT was careful with its programming and news, it was granted a license to broadcast free-to-air in Kazakhstan unlike its rival channel, the private commercial RTR [22].

*Other channels:* Arna television station, formerly Khabar's second channel, broadcast only in Kazak although less than half of ethnic Kazaks (or 16 percent of the total national population) speak the language. Another television broadcaster dominating the Kazakhstan market was KTK or Kazakhstan Commercial Television. Together, all the national channels in Kazakhstan raised US\$25-30 million from advertising annually, which was considered sufficient to survive financially but to not be very profitable. Strictly speaking, these channels were not competitors as they had overlapping ownerships. Besides their advertising rate rises were done in quick succession raising questions of price-fixing [23].

TABLE 1: TERRESTRIAL TELEVISION STATIONS IN KAZAKHSTAN

<i>Channel</i>	<i>Broadcast language</i>	<i>Ownership</i>
Kazakhstan 1	Kazak and Russian	Government
Khabar TV	Kazak and Russian	Government/ Private
KTK	Kazak and Russian	Private
EurasiaTV	Russian	Government
Channel 31	Russian	Private

Source: BBC (2004), Internews (2004)

### Satellite & Cable Television

Less than 2 percent of households in Kazakhstan have access to satellite television and only 16 percent of the 345,000 television households in Almaty have cable access [24]. Private dishes were permitted officially but could be afforded only the wealthy and so were not considered a threat to the political elite. A number of foreign and local channels (Table 2) are provided via two major service providers in the capital city.

*Katelco:* This service was linked to the Russian broadcaster NTV Plus owned by Media Most and charged \$10 for 20 satellite channels. Katelco was part of Kaz Telecom and so government-owned which probably supplied channels to Alma TV [25]. Katelco was relatively newer and smaller than AlmaTV, broadcasting only 32-36 channels, though it was digital

*Alma TV:* This station was started in 1994 by a US company Metro Media Group in Almaty and then 3 other cities: Oskemen, Karaganda and Aktau. It reached half a million households in the whole country, about 240,000 of them in Almaty and about 70,000 each in the regional centres. Only 3 other cities in Kazakhstan had local cable networks [26]. It relayed 56 channels primarily from StarTV, ESPN, National Geographic and others using the AsiaSat3 platform, usually analogue arguing that Kazakhstan homes were not ready for digital transmission. A senior executive in Alma TV stated that Metro Media was no longer a shareholder in it, nor was it owned by any local conglomerate, though he conceded that some of its owners might 'overlap' [27]. But another respondent believed that the cable channel had been independent till 2001 and was then brought into the Kazakhstan media oligopoly [28].

TABLE 2: TELEVISION CHANNELS AVAILABLE VIA CABLE IN KAZAKHSTAN

Channel	Origin	Programming observations
K	Russia	Childrens programming, including Italian cartoons
1	Russia	Childrens programming, music programmes
ACT	Russia	Comedies and documentaries in Russian
THT	Russia	US movies in Russian
'dd'	Kazak?	Music programming in Russian
'**'	Kazak?	US movies dubbed into Kazak
'O'	Kazak?	Old movies from around the world
Ajara TV	Usbekistan	Programming in Uzbek language

## Commentary

Unlike Eastern Europe, most Central Asian nations retained the leadership of former regimes despite democratic elections triggered by ardent nationalism following the dismantling of the Soviet Union. Many of these enduring leaders converted rapidly from totalitarian communism to authoritarian capitalism, thereby benefiting themselves, family and friends from the privatisation of state-owned corporations and monopolies. Often, as in Kazakhstan, media establishments were owned by these nouveau-riche oligarchs and/or their not-so-transparent conglomerates which have thus influenced public opinion and political policy in favour of their business enterprises. There has been little evident development of and support for civil society officially, and hence no related access by such groups and the wider community to autonomous media and communications. Given the fact that all media is now dependent on advertising revenue, they are constrained to uphold the ascendant free-market ideology and its politically powerful proponents. Where occasionally some new commercial media have attempted to play their role as the fourth estate, as highly publicised in Russia, governments have sought to rein them in.

As the most westernised, Kazakhstan may be an exemplar for media industry development for the other Central Asian nations. In turn it could learn from the experience of other post-Soviet states and satellite countries such as in the Baltic and Central Europe, which have progressed considerably further in the commercialisation of their media and adoption of 'Western' quasi-liberal norms concerning the media freedoms. The transitional economies in Asia such as China and Vietnam where the ruling communist parties have retained stringent political control over their media despite marketisation might provide alternative models. Yet another model for Kazakhstan might be culturally-closer Turkish television operating within a secular state with moderate Islamic values, though other Central Asia states might find cultural if not political affinities with Iran, even if the role of Islam in society diverges.

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# **Production Economies of Public, Private and Foreign Banks Operating in India: Evidence from the post-Liberalization Era**

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## **Abstract**

**In this study we examine the economies of scale and scope of the three ownership groups of banks; privately-Owned Domestic banks (PROBs), Publicly-Owned Domestic banks (PUODs), and foreign-Owned banks (FOBs) operating in India using the most recent available data, 1998-2003. Using the translog cost function specification, we found that there exist economies of scale and scope for the three ownership categories. We conclude that banks operating in India have opportunity to save costs by increasing their scale of operation and by diversifying their outputs.**

## **Introduction**

Since the 1980s, there has been an increasing trend towards global economic integration. The reduction in trade barriers and the significant advances in computer and communication technology are two main factors responsible for this trend. This has resulted in an upsurge in the demand for international financial services. In fact, the move towards the “supermarket” concept in the banking industry in many developed countries can be attributed to this trend. These countries have passed laws deregulating their banking industry as these laws were seen as being crucial to improve the effectiveness of their domestic banking industry in coping with the increasingly competitive landscape in this era of globalization. The same trend can be observed in developing countries starting in the middle 1980s or early 1990s. During this period, a large number of developing economies implemented a massive liberalization policy on their banking system to make them more productive and competitive like their foreign counterparts.

From the time of independence in 1947 until 1991, India followed an economic policy known as “the middle path.” This combined some features of socialism and capitalism. However, the banking sector was mired in excessive regulation and was subject to pervasive bureaucratic interference. The decades of socialism did incalculable harm to the Indian economy. In 1991, a new government took office. Led by a visionary prime minister, it decided to liberalize the economy and embrace a market-driven economy. This liberalization process has been continued by subsequent governments too regardless of political affiliation. Due to these measures, India has now joined China as the two fastest growing economies in the world. Although public sector banks still dominate the Indian banking environment, there has been a sharp increase in the number of private sector and foreign banks.

The issue of public versus private ownership of banks Hawtrey [23], Gerschenkron [22], Myrdal [40], Caprio and Martinez-Peria [10], Barth [3], La Porta [30], whether foreign banks should be allowed to expand freely in the domestic market DeYoung and Nolle [14], Chang [13], and production economies of foreign versus domestic banks Elyasiani and Rezvanian [17] and Rezvanian, Rasheed and Mehdian [53] has received a lot of attention in the banking literature. However, despite the empirical studies that have been done in this area, these issues remain controversial. Examining the production economies of banks will provide greater insight into this area. Therefore, in this paper, we examine the production economies of the three ownership groups of banks operating in India using the most recent available data, 1998 - 2003. We categorize banks based on their ownership structure as; Privately-Owned Domestic banks (PROBs), Publicly-Owned Domestic banks (PUOBs), and Foreign-Owned banks (FOBs).

This study contributes to the two following related questions. First, what are the scale economies of the three different ownership groups of banks operating in India? Second, which type of banking ownership has larger

scope economies? Understanding the degree of scale and scope economies of the three types of banking ownership will allow us to refer to possible cost saving opportunities through expansion of scale of production and diversification of outputs. The rest of this paper is organized as follows: In section 2, we describe the banking environment in India. Section 3 provides a brief review of the recent relevant literature in banking industry. Section 4 explains methodology, data and definition of inputs and outputs used in the paper. Section 5 discusses the empirical results and finally Section 6 concludes the paper.

## **Bank Environment in India**

### **The 1947-1991 Period**

In the early years after independence from Britain in 1947, there were a large number of private sector banks in India. In 1955, the Imperial Bank of India and its seven associate banks were nationalized. This was followed by the nationalization acts of 1969 and 1980 which brought the largest private sector banks were brought under government control. According to a 1992 report by the Indian credit rating agency ICRA, as a result of the nationalization acts of 1969 and 1980, the government's share of bank assets increased from 31% to 92 %. The Indian Government viewed banks primarily as instruments for bringing about social change and decided how the banks raised money, to whom they loaned money, and how much they loaned. Other policies included administered interest rates, pre-emption of resources by the government and extensive micro-regulations directing the major portion of the flow of funds to and from financial intermediaries. The stifling government control over the banking sector resulted in a decline in the productivity and efficiency of banks as well as an increase in their non-performing assets. These factors, combined with a sharp increase in personnel costs, negatively impacted the profitability of the banks. The public sector banks were viewed as vehicles for providing employment and advancing the government's social goals, regardless of the detrimental impact on their profitability. The primacy of the social goals resulted in the Government not being too concerned with the low levels of competition, efficiency, productivity, and profitability in the banking sector. Thus, during the socialism era from 1947-1991, the banking sector was characterized by inefficiency, poor customer service, very low usage of technology and inadequate transparency of accounting information. The market was not allowed by the government to exert a disciplining influence on the banks and other market participants.

Paradoxically, this policy of the Government towards the banking sector resulted in a significant increase in the number of branches in the rural sector and thereby brought banking services to the millions of people living in that sector. These people were earlier at the mercy of money lenders. The net result of the spread of banking in the rural areas was acceleration in the pace of economic development in those areas. It also gave an impetus to agriculture and small-scale industries.

### **Economic Liberalization and Deregulation of the Banking Sector**

In 1991, the Government of India decided to liberalize the economy and remove the impediments to growth. Among the sectors whose liberalization was seen as the key to India's economic revival was the banking sector. There was a realization among the reform-minded policy makers that the market's disciplining mechanism and greater transparency in accounting disclosure would actually strengthen the process of supervising the banks. It was felt that greater market discipline in bank management and greater transparency through improved disclosure norms would help in the early identification of problems and avoid erosion of the public's faith in the banking system. Unlike the policy adopted by many developing countries around the world, India decided not to adopt a policy of large-scale privatization of government-owned banks. Instead, the Government of India decided to increase the capitalization of banks through diversification of ownership to private investors up to a limit of 49 percent. This also ensured that majority ownership and control remained with the government. The eventual goal was to help them attain standards of international best practices. Consistent with this objective, the Government of India constituted a Standing Committee on International Financial Standards and Codes in December 1999. The objectives of the first generation of financial sector reforms were to create an efficient, productive and profitable financial service industry operating within the environment of operating flexibility and functional autonomy Mohan [38]. The Government of India established two important committees (Committee on the Financial System (CFS) in

1991 and Committee on Banking Sector Reforms (CBSR) in 1998) and charged them with coming up with specific recommendations for reforming the banking sector. The CFS advocated a more market-oriented banking system that operated in an environment of prudent regulation and transparency of accounting information. The market was viewed as the main mechanism for bringing about discipline in the banking sector, while the role of the Reserve Bank of India (RBI), the nation's central bank, was to provide an environment that would foster a level-playing field and facilitate the operation of the market forces. The RBI was viewed as a market-friendly supervisor of the banking sector and not as a heavy-handed regulator. The CBSR recommended the dilution of government equity in nationalized banks to 33 percent. It also suggested that the RBI nominees on bank boards step down in order to give the banks real autonomy. The CBSR recommended the creation of an Asset Reconstruction Fund (ARF) which would take over the bad debts of banks from their balance sheet to enable them to restart on a clean slate. It also recommended increasing capital adequacy and tightening provisioning norms. It suggested that foreign banks seeking to set up business in India should have a minimum start-up capital of \$ 25 million and that they should be allowed to set up subsidiaries and joint ventures that should be treated on par with private banks. The recommendations of the CFS and the CBSR formed the basis of the reforms initiated in the 1990s and early 2000s.

#### **Banking Sector Reforms**

The deregulation of the Indian banking sector has been multi-faceted. There has been a relaxation of the requirement to lend to government-designated "priority sectors". There has also been a move towards international standards of capital adequacy, asset quality ranking, liquidity, and reserve requirements. Other reforms have included a liberalization of most deposit and lending rates by commercial banks. However, the interest rate on savings deposits continues to be dictated by the Reserve Bank of India and demand deposits continue to offer no interest. The Reserve Bank of India has also gradually lowered the reserve requirement for commercial banks. The average cash reserve requirement (CRR) has fallen from 15 percent before the onset of reforms to 4.5 percent currently. The statutory liquidity requirement (SLR) has dropped from 38.5 percent for domestic liabilities and 30 percent for non-resident liabilities to 25 percent currently, which is the minimum ratio of liquid assets to demand and time liabilities allowed under the existing law. Foreign banks have been allowed to expand operations. Banks have been allowed to set up Offshore Banking Units in Special Economic Zones. The limit on foreign direct investment in private banks has been increased from 49% to 74% and the 10% cap on voting rights has been removed. In addition, the limit on foreign institutional investment in private banks is currently 49%.

The Government has allowed the strong banks to raise funds in the capital markets and has reduced its equity in banks. It has also given banks greater freedom in choosing the location of branches as well in recruitment. Banks have been allowed to enter into new business areas such as infrastructure financing, leasing, insurance, investment banking, asset management, etc. Limits on overseas investments by banks have also been relaxed. New instruments such as interest rate swaps, forward rate agreements, cross currency forward contracts, forward cover to hedge inflows under foreign direct investment, liquidity adjustment facility for meeting day-to-day liquidity mismatch have been permitted. The Government is also encouraging the growth of universal banking.

The Reserve Bank of India has introduced Risk-Based Supervision of banks and taking measures to ensure that the best international practices in accounting systems, corporate governance, payment and settlement systems are being adopted by the banks in India. Consequently, Indian norms for capital adequacy, asset classification, income recognition, prudential, and supervision that are applied equally to all banks, irrespective of ownership, are now close to global standards. The Reserve Bank of India has issued guidelines for putting risk management systems in banks to address credit risk, market risk, and operational risk. Most banks in India now have specialized committees to measure and monitor various risks and have been upgrading their risk management skills.

As a result of these reforms, there has been increasing competition in the banking sector. The prudent measures put in place by the RBI have resulted in a significant decline in Non-performing Assets (NPAs). The enactment of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI) in 2002 has also helped banks to manage their NPAs better. Debt Recovery Tribunals have also been set up to assist banks in the recovery of loans.

Although the liberalization of the banking sector has resulted in the rapid growth of private banks and foreign banks, the public sector banks still account for nearly 90% of the branches and 73% of the credit in the Indian banking system. These private sector banks have become strong players and are challenging the dominance

of the public sector banks. The share of the private sector banks in the overall income of the banking sector has risen from 8.2 % in 1995-1996 to 18.5% in 2002-2003, while the share of the public sector banks has fallen from 82.5% to 74.5% during the same period. The private banks and foreign banks have been able to focus on improving their efficiency and profitability as they are not constrained by government mandates to lend money to certain “priority sectors.” . They have also invested in the latest banking technology. The public banks, however, have been slow in adopting modern banking technology. Consequently, the overall efficiency and profitability of public sector banks are believed to lag behind the efficiency and profitability of the private banks and the foreign banks.

## Literature Review

There has been an extensive study of economies of scale and scope of depository financial institution in recent years. However, these studies mostly have focused on the US banking industry. The most recent studies using the US banking data include Humphrey [25]; Noulas, Ray and Miller [42]., Noulas, Miller and Ray [41]; Hunter, Timme and Yang [26], Hunter and Hunter and Timme [27]; Shaffer [60]; Berger and Humphrey [7]; Mester [36]; McAllister and McManus [34]; Evanoff and Israilevich [20]; Rezvanian, Mehdian and Elyasiani [53]; Mahajan, Rangan and Zardkoohi [32]; Mitchell and Onvural [37]; Mehdian and Rezvanian, [35].

The scale and scope economies of banks operating outside the US also have been studied extensively. The recent studies include Zardkoohi and Kolari [62,63] for Finland; Dietsch [15], Martin and Sassenou [33] for France; Lang and Welzel [31] for Germany; Rodriguez, Alveraz and Gomez [59] for Spain; Drake and Weyman-Jones [16] for UK; Karafolas and Mantaka [28] for Greece; Fields, Murohy and Tirtiroglu [21] for Turkey; Simper [61] for Italy; Cavallo and Rossi [11] and Altunbas and Molyneux [2] for Europe; Rezvanian and Mehdian [54] for Singapore; Rezvanian, Rasheed and Mehdian [55] for Hong Kong; Allen and Liu [1] for Canada.

The results of these studies, although conflicting, mostly indicate presence of scale and scope economies for only smaller and medium size banks and not so for largest banks. Additionally, the result of these studies may not be applicable to the Indian banking system, given the differences in the regulatory and competitive environment as well as input prices. We noted that there has been only a few studies done on the economies of scale and scope of commercial banks in India, though few studies have studied the cost efficiency of the India’s banking system<sup>1</sup> This provides an impetus for our study into the India banking system, in particular the scale and scope economies. Three recent studies have analyzed scale economies of banks in India and found results similar to those for the US data. Ray and Sanyal [46] reported larger scale economies for small banks and smaller scale economies for larger banks. Chatterjee [12] found increasing return to scale for smaller banks and constant return to scale for larger bank. Pradeep [45], using 1995-1996 data reports that all banks in India are operating below their optimal size, and that unexploited economies are stronger for the largest banks in India

The information on the production economies of banks operating in India has an important public policy implication to Indian regulatory authorities who are responsible for a safe and efficient production of banking industry. The issue of productivity and efficiency of banking system is important to the policy makers, especially in the developing countries since banking sector is considered as the major vehicle for private capital formation as well as the major source of providing funds to the economy. In this study, we examine the production economies of three groups of banks in India, namely, domestic private banks, public banks as well as foreign banks. Specifically, we try to answer the following questions: What is the cost structure of the banking system in India? Are domestic banks operating with a different degree of economies of scale and scope as compared with their foreign banks counterparts? What about scale and scope economies of private versus public banks?

## Methodology and Model

In this study, we use translogarithmic cost function to study economies of scale and scope of banks operating in India<sup>2</sup>. For a cost minimizing multi-input and multi-output bank, the translog cost function is presented by the following equation<sup>3</sup>.

$$\ln C = \alpha_0 + \sum_{k=1} \alpha_k \ln Y_k + \sum_{l=1} \beta_l \ln P_l + \frac{1}{2} \left[ \sum_k \sum_z \delta_{kz} \ln Y_k \ln Y_z + \sum_l \sum_g \gamma_{lg} \ln P_l \ln P_g \right] + \sum_l \sum_k \rho_{lk} \ln P_l \ln Y_k. \quad (1)$$

Where  $C$  is total operating cost,  $Y_k$  denotes output quantities, the  $P_l$  are input prices,  $\alpha_0$ ,  $\alpha_k$ ,  $\beta_l$ ,  $\delta_{kz}$ ,  $\gamma_{lg}$ ,  $\rho_{lk}$  are parameters to be estimated. The derived demand for the three input factors can be obtained by partially differentiating the cost function with respect to the factor prices as:

$$\partial \ln C / \partial \ln P = S_l = \beta_l + \sum_l \gamma_{lg} \ln P_l + \sum_l \rho_{lk} \ln Y_k. \quad (2)$$

The translog cost function (1) and the two of the three share equations (2) are estimated using Zellner's [64] Seemingly Unrelated regression (SUR) after imposing the following linear homogeneity and symmetry condition defines in equations (3) and (4) respectively.

$$\sum_l \beta_l = 1; \quad \sum_l \gamma_{lg} = 0; \quad \sum_l \rho_{lk} = 0 \quad (3)$$

$$\gamma_{lg} = \gamma_{gl} \quad \text{and} \quad \delta_{kz} = \delta_{zk} \quad (4)$$

The estimated coefficients are used in calculation of the scale and scope economies.

A bank is considered as operating at increasing return to scale if a one percentage increase in all outputs lead to a less than one percentage increase in total costs, meaning that the banks has opportunity of reducing average cost if the bank increase its scale of operation. According to Hanoch [24] and Panzar and Willig [43], the degree of scale economies can be measured as the inverse of the sum of the cost elasticities of outputs as:

$$SE = 1 / \sum_k E_{Y_k} \quad (5)$$

Where,  $E_{Y_k} = \partial \ln C / \partial \ln Y_k$  is the cost elasticity of output  $k$ . If  $SE > 1$ ,  $SE < 1$ , or  $SE = 1$ , then the production technology exhibits increasing, decreasing, or constant return to scale.

Scope economies are said to exist if a joint production is less costly than producing the same outputs separately. Panzar and Willig [44] propose the following method to measure overall economies of scope for the case of two outputs:

$$SC = [C(y_1, 0) + C(0, y_2) - C(y_1, y_2)] / C(y_1, y_2).$$

If  $SC > 0$  ( $SC < 0$ ), then there is overall economies (diseconomies) of scope<sup>4</sup>.

#### Data

The data used in the estimation of the translog cost function and the measures of scale and scope economies are gathered from the Reserve Bank of India (RBI) website and from the Indian Banking Association for the years 1998-2003. We categorized banks based on their ownership structure as Privately-Owned domestic banks (PROBs), Publicly-Owned domestic Banks (PUOBs) and Foreign-Owned Banks (FOBs). We selected 20 largest banks from each group and those with complete data were retained. The retained banks consisted of 19 PROBs, 20 PUOBs and 16 FOBs for each of the years 1998-2003. Thus, our sample consisted of 114 PROBs, 120 PUOBs, and 96 FOBs.

In defining our input and outputs of banks, we used intermediation approach<sup>5</sup>. Based on this approach, we assume that banks are using three inputs, namely, deposits labor and fix assets to produce three outputs, namely, loans, securities and other earning assets<sup>6</sup>. Total cost is sum of interest and expenses on the three inputs. Three outputs are defined as: loans ( $Y_1$ ), securities ( $Y_2$ ), and other earning assets ( $Y_3$ ). Three inputs are defined as: borrowed funds ( $X_1$ ), labor ( $X_2$ ), and fixed assets ( $X_3$ ). The price of borrowed funds ( $P_1$ ) is obtained by dividing the annual interest expense on deposits and other borrowed funds by ( $X_1$ ), the unit price of labor ( $P_2$ ) is calculated by dividing the total salaries and benefits of employees by ( $X_2$ ), the price of capital is the ratio of total expense of premises and fixed assets to ( $X_3$ ). Table 1 presents the descriptive statistics of cost function variables for the three ownership categories for the sample period 1998-2003.

TABLE 1: MEAN OF OUTPUTS, INPUTS, AND PRICE OF INPUTS, 1998-2003

	1998	1999	2000	2001	2002	2003
<b>Foreign Banks</b>						
Y <sub>1</sub>	13,228	13,363	16,511	20,065	27,337	30,762
Y <sub>2</sub>	7,997	11,560	13,496	16,419	18,833	23,651
Y <sub>3</sub>	3,813	4,787	3,661	5,477	7,384	5,788
X <sub>1</sub>	19,361	21,643	23,151	27,984	33,303	40,855
X <sub>2</sub>	731.59	691.36	654.30	763.65	626.74	712.59
X <sub>3</sub>	908	1,058	1,072	1,062	1,071	1,284
P <sub>1</sub>	0.130	0.137	0.147	0.121	0.114	0.097
P <sub>2</sub>	508.65	569.01	713.58	785.99	864.32	971.86
P <sub>3</sub>	0.485	0.573	0.648	0.690	0.648	0.811
<b>Private Banks</b>						
Y <sub>1</sub>	14,152	17,933	24,559	31,291	55,558	66,010
Y <sub>2</sub>	10,971	15,358	22,460	28,557	46,380	50,802
Y <sub>3</sub>	4,390	5,804	7,237	7,980	15,723	12,094
X <sub>1</sub>	28,333	35,835	49,792	62,345	78,736	97,639
X <sub>2</sub>	2,131	2,561	2,589	2,765	2,646	3,283
X <sub>3</sub>	967	1,173	1,376	1,614	3,585	3,609
P <sub>1</sub>	0.084	0.099	0.082	0.083	0.079	0.075
P <sub>2</sub>	760.85	182.25	217.01	286.52	230.34	254.75
P <sub>3</sub>	0.233	0.259	0.275	0.292	0.298	0.336
<b>Public Banks</b>						
Y <sub>1</sub>	85,425	99,434	117,408	139,072	166,095	189,551
Y <sub>2</sub>	81,263	95,595	111,730	124,692	141,521	169,632
Y <sub>3</sub>	29,033	33,851	34,030	36,670	37,693	33,316
X <sub>1</sub>	188,487	219,781	253,171	288,031	325,027	362,295
X <sub>2</sub>	45,046	29,514	29,328	27,371	24,392	24,670
X <sub>3</sub>	3,383	3,586	3,751	3,901	3,994	4,036
P <sub>1</sub>	0.074	0.075	0.075	0.072	0.071	0.063
P <sub>2</sub>	140.25	166.88	187.30	257.95	405.27	287.71
P <sub>3</sub>	0.261	0.272	0.301	0.320	0.345	0.380

## Empirical Results

Each of the three samples representing each ownership group was fitted into the system of equation (1) and (2) separately. Table 2 reports the estimated coefficients, the  $R^2$  values, and the significance level. The results are obtained by using Zellner's [62] Seemingly Unrelated Regression (SUR) technique. For the three estimated set of coefficients the goodness of fit is good with high  $R^2$  ranging from 0.956 to 0.986. Most of coefficients carry proper sign and are statistically significant.

The estimated coefficients of translog system of equations along with equation (5) were used to estimate the economies of scale for each observation in each group. The mean of scale economies is presented in table (3). According to this table, the mean of scale economies of the three samples are greater than one and statistically significant, indicating that there is cost saving opportunities for all the three sample. However, this cost saving opportunity is more prevailing to the FOBs and PROBs that to the PUOBs. Table 4 provides information on the number of banks from each sample falling in each category of scale and scope economies. The figures show that over the sample period 84.8% (280) of the banks operated below their optimal size, 11.8% (39) operated at their optimal scale and 3.3% (11) operated above their optimal scale. This data confirms the statistics provided in table 3, indicating that majority of banks in India during 1998-2003 operated at smaller scale than the optimal size and they could increase their cost saving by increasing their size.

TABLE 2: PARAMETER ESTIMATES FOR THE FOBs PROBs AND PUOBs.

Variable	Coefficient	FOBs	PROBs	PUOBs
Intercept	$\alpha_0$	1.672*	2.283*	1.976*
Ln Y <sub>1</sub>	$\alpha_1$	0.127*	0.221*	0.283*
Ln Y <sub>2</sub>	$\alpha_2$	0.231*	0.194**	0.231*
Ln Y <sub>3</sub>	$\alpha_3$	0.189*	0.202*	0.192**
Ln P <sub>1</sub>	$\beta_1$	0.400**	0.388*	0.521*
Ln P <sub>2</sub>	$\beta_2$	0.298*	0.303**	0.280*
Ln P <sub>3</sub>	$\beta_3$	0.302*	0.309*	0.199*
(Ln Y <sub>1</sub> ) <sup>2</sup>	$\delta_{11}$	0.139*	0.089**	0.131*
(Ln Y <sub>2</sub> ) <sup>2</sup>	$\delta_{22}$	0.187**	0.121*	0.112
(Ln Y <sub>3</sub> ) <sup>2</sup>	$\delta_{33}$	0.142*	0.069***	0.101*
Ln Y <sub>1</sub> Ln Y <sub>2</sub>	$\delta_{12}$	0.098	0.879*	0.372*
Ln Y <sub>1</sub> Ln Y <sub>3</sub>	$\delta_{13}$	0.121*	-0.112**	-0.077
Ln Y <sub>2</sub> Ln Y <sub>3</sub>	$\delta_{23}$	-0.132	0.321*	0.066**
(Ln P <sub>1</sub> ) <sup>2</sup>	$\gamma_{11}$	0.054*	0.034**	0.115*
(Ln P <sub>2</sub> ) <sup>2</sup>	$\gamma_{22}$	0.039*	-0.019*	0.102**
(Ln P <sub>3</sub> ) <sup>2</sup>	$\gamma_{33}$	-0.225**	0.019	0.005*
Ln P <sub>1</sub> Ln P <sub>2</sub>	$\gamma_{12}$	-0.083*	-0.006*	-0.106*
Ln P <sub>1</sub> Ln P <sub>3</sub>	$\gamma_{13}$	0.029*	-0.028*	-0.009**
Ln P <sub>2</sub> Ln P <sub>3</sub>	$\gamma_{23}$	0.044	0.009**	0.004***
Ln P <sub>1</sub> Ln Y <sub>1</sub>	$\rho_{11}$	-0.022*	-0.007*	-0.015*
Ln P <sub>1</sub> Ln Y <sub>2</sub>	$\rho_{12}$	0.005**	0.008	-0.002***
Ln P <sub>1</sub> Ln Y <sub>3</sub>	$\rho_{13}$	0.009	-0.008**	-0.006**
Ln P <sub>2</sub> Ln Y <sub>1</sub>	$\rho_{21}$	0.019**	-0.010*	0.009*
Ln P <sub>2</sub> Ln Y <sub>2</sub>	$\rho_{22}$	-0.016*	-0.021*	-0.013**
Ln P <sub>2</sub> Ln Y <sub>3</sub>	$\rho_{23}$	-0.002*	-0.009*	-0.101**
Ln P <sub>3</sub> Ln Y <sub>1</sub>	$\rho_{31}$	0.003**	0.080	0.006
Ln P <sub>3</sub> Ln Y <sub>2</sub>	$\rho_{32}$	0.011*	0.013**	0.015*
Ln P <sub>3</sub> Ln Y <sub>3</sub>	$\rho_{33}$	0.007***	0.017**	0.107**
Number of Observation		96	114	120
Adj R-square		0.956	0.986	0.975

Significant at the 1% level, \*\* Significant at the 5% level, \*\*\* Significant at the 10% level.

TABLE 3: ESTIMATES OF SCALE AND SCOPE ECONOMIES FOR FOBs, PROBs, and PUOBs

	FOBs	PROBs	PUOBs	Overall**
Scale Economies	1.0893*	1.1029*	1.0022*	1.062
Scope Economies	0.8276*	1.2193*	0.6752*	1.026

\* Economies of scale (scope) different than unity (zero) at 1% level of significance.

\*\* Overall scale and scope economies are calculated as the weighted average SE and SC for each of the three groups estimated separately, rather than using the pooled sample.

TABLE 4: NUMBER OF BANKS IN DIFFERENT CATEGORIES OF SCALE ECONOMIES

	FOBs	PROBs	PUOBs	Total
Scale economies:				
Increasing returns to scale	83	95	102	280
Constant returns to scale	11	14	14	39
Decreasing returns to scale	2	5	4	11
Total	96	114	120	330

The estimated coefficients of translog system of equations along with equation (6) are used to estimate the economies of scope. Table 3 also provides the results of scope economies. According to the figures in this table, the mean score of scope economies are greater than zero and statistically significant. This indicates that there is cost saving opportunity for all three groups of banks through product diversification. The magnitude of scope economies for is greater for PROBs than PUOBs and FOBs.

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## End Notes

<sup>1</sup> The examples of the recent banking efficiency studies on India banking system are: Bhattacharyya et. al. 1997, Bhattacharyya et. al. 1997, Mohan and Ray /, Saha and Ravisankar 1999, Sathye 2003, Rezvanian et al. 2005.

<sup>2</sup> The use of translog cost function in banking industry production economies has become more common after the two major study by Benston et al. (1982) and Hunter and Timme (1986).

<sup>3</sup> McAllister and McManus (1993), correctly caution the use of translog cost function when the banking sample consists of very small or very large banks. To remedy this problem, Mitchell and Onvural 1996 suggest using the Fourier functional form. This is not an issue in this study since our sample consists of 20 largest banks from each ownership categories.)

<sup>4</sup> The problem with this approach is that the translog cost function does not allow for the calculation of costs when output is zero. To remedy this problem, we follow Kolari and Zardkoohi (1986) suggestion by substituting the minimum quantity of output in the sample for the zero output.)

<sup>5</sup> There is disagreement in defining inputs and outputs of banks. There are three approaches used in the literature in defining outputs and inputs; intermediation, user cost and value added. See Berger and Humphrey (1992) for further detail.

<sup>6</sup> Other earning assets is defined any asset except loans and securities on which bank earn return.

# Purchasing Pirated Software: An Initial Examination of Chinese Consumers

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## Abstract

China is one of the countries with the highest software piracy rates in the world. However, little research has been conducted to understand Chinese consumers of pirated software. This research extends a previously tested model by Ang et al. (2001), and redesigns measures based on an analysis on the Chinese market, to identify factors influencing attitude and purchasing intention of Chinese consumers toward pirated software. A survey study was carried out to empirically test the model. Four out of the seven tested social and personality factors were found to be influential in determining consumer attitude toward software piracy. These factors were normative susceptibility, value consciousness, collectivism, and novelty seeking. Attitudinal measures representing buyers' and non-buyers' difference and their influencing purchase intentions are identified. This research established three attributes of consumer attitude toward software piracy: attitude toward social consequences, attitude toward pirated software, and attitude toward piracy behavior, which can be used in future research. This research is one of the first to examine the Chinese market, which is a focus of piracy problems for the software industries.

## Introduction

Software piracy is a prevalent and serious problem in Mainland China (hereafter China). China is one of the countries with the highest software piracy rates in the world at 98% (Traphagan & Griffith, 1998). Estimates reveal that software piracy in China alone cost United States' businesses \$1.85 billion in 2002 (Joshphberg et al., 2003). From a national level, China has a low per capita GNP and a low individualistic/high collectivistic culture, to which software piracy correlates significantly (Husted, 2000; Marron & Steel, 2000). The weaknesses in Chinese law legislation and enforcement for copyright protection also leads to the high piracy rate (Yeh, 1999). With a continuous double-digit annual economic development ratio, China is embracing a fast-growing software market, indicating an even more severe software piracy problem in China for the future.

While software piracy in China is an increasingly serious problem, and the "Chinese" (or eastern/Asian) culture is blamed as one of the major causes for the high piracy rates in Asian countries (Husted, 2000; Marron & Steel, 2000; Swinyard, Rinne, & Kau, 1990), surprisingly, insufficient research has been dedicated to understanding the software piracy problem in China, especially from the consumers perspective. To the best of our knowledge, no research has been conducted to understand Chinese consumer attitudes and behavior toward software piracy.

Some research has been conducted in countries/areas with a Chinese cultural influence, such as Singapore and Hong Kong. Moores and Dhillon (2000) conducted research in Hong Kong, studying shoppers' intentions towards purchasing pirated software in various scenarios, and found that lowering the cost of legitimate software may effectively reduce purchases of pirated software. Thong and Yap (1998) tested an ethical decision-making theory through a study on entry-level IS (information systems) professionals in Singapore, and found that moral intentions to pursue "softlifting" (illegal copying of software for personal use) behavior is determined primarily by ethical judgments. Swinyard et al. (1990) conducted research to compare the software piracy morality of students in Singapore and the US, and discovered differences in moral values between the two groups, as the US group was more influenced by legality of the copying and the Singaporeans focused more on the impact of outcomes. They suggested that the cultural difference between the west and the east is a major reason.

While the results from this research may help to understand Chinese consumers' software piracy behavior, they cannot substitute for research on Chinese consumers. First, Singapore and Hong Kong are more developed countries/areas, while Mainland China is much less developed in economy and has a much lower per capita income. The impact of high software costs may be more significant in Mainland China. Second, the software protection laws are better established and enforced in Hong Kong and Singapore than in mainland China. Meanwhile, consumers in Hong Kong and Singapore were educated about copyright laws much earlier than in Mainland China. Furthermore, western culture has been popular longer and more deeply in Hong Kong and Singapore societies than in China. While Hong Kong and Singapore may represent a mix of western and eastern cultures, China is characterized more by a collectivist culture, which is a main cause for software piracy. Meanwhile, China has a much higher piracy rate (about 98%) compared to Singapore (averagely 57%) and Hong Kong (64%) (Marron & Steel, 2000), and a much larger market. Thus, conducting standalone research on Chinese consumers in software piracy is valuable.

To design software protection strategies, analyzing software piracy from the demand side is important (Bloch, Bush, & Campbell, 1993; McDonald & Roberts, 1994). Actually, the magnitude of the pirated software market provides the strong motivation for illegal suppliers (McDonald & Roberts, 1994). Anti-piracy institutions need to understand the rationale behind the demand to design software protection strategies. Previous studies identified that financial value is one of the most important reasons for software piracy (Cheng et al., 1997; Moores & Dhillon, 2000; Traphagan & Griffith, 1998; Wee et al., 1995). However, other factors, such as demographic factors, benefit-cost evaluation other than financial factors, situational factors, professionalism, and other gains for consumers, are identified also (Cheng et al., 1997; Logsdon et al., 1994; Moores & Dhillon, 2000).

Software piracy may include a number of related practices such as illegal copying of programs, selling/purchasing pirated software, and renting unauthorized software. This research focuses on consumer attitude and behavior in purchasing pirated software. Since selling pirated software is an institutional market behavior, it presents a serious threat to the legal distribution of software by competing with and blocking consumer access to legal marketers. Usually, consumers are aware during the shopping process that the product is pirated (McDonald & Roberts, 1994). Still, they purchase the pirated software for various reasons. Understanding the influencing factors, especially non-financial factors, in consumers' purchase decision-making process is an important factor in the design of anti-piracy education and strategies.

The study by Ang, Cheng, Lim and Tambyah (hereafter ACLT), entitled "Spot the Difference: Consumer Responses Towards Counterfeits", and published in *The Journal of Consumer Marketing* in 2001, contributed important research in the examination of non-financial factors in consumer purchase decisions on pirated products. ACLT constructed a model examining social and personality effects on consumer responses toward pirated products. As shown in Figure 1, social and personality factors include informative susceptibility, normative susceptibility, value consciousness, integrity, and personal gratification. Attitude toward piracy is the moderator construct, and purchase intention is the destination construct. The model was tested on Singaporeans through a survey on pirated music CDs. ACLT found that among five social and personality factors, normative susceptibility, value consciousness, and integrity influenced the attitude of Singaporeans toward pirated music CDs, and informative susceptibility and personal gratification did not. Singaporeans who previously had bought pirated CDs had more favorable views about pirated CDs than those who had not bought such products; attitudes toward pirated music CDs was a significant predictor of purchase intention of Singaporeans, accounting for 44% of the variance.

This study, therefore, has three purposes. First, the ACLT model is submitted to a test in a different market context to understand consumer purchasing pirated software in Mainland China. While Chinese consumers are different from Singaporeans, purchasing pirated CDs may also differ from purchasing pirated software. Music CDs are for entertainment purposes, and a major portion of software is for business and study use. Music CDs are usually much cheaper than software. In fact, software has a higher piracy rate than music CDs (98% vs. 88% in Mainland China (Traphagan & Griffith, 1998)). Understanding consumers' social and personality factors, their attitudes, and purchase intentions in purchasing pirated software is important in designing an effective prevention strategy in Mainland China. Second, the ACLT model and study will be extended and refined by adding two more constructs: re-structuring and re-designing attitude measures, and using stepwise regression to analyze the data. Third, we intend to establish multi-attributes for the construct of consumer attitudes toward software piracy in this research, which can help build a foundation for future in-depth studies on Chinese consumer attitudes concerning software

piracy.

This paper is organized as follows: Section II discusses the extended model and hypotheses; Section III describes the research method; Section IV analyzes survey results; And Section V concludes the paper.

## **A Model and Hypotheses**

The model, shown in Figure 1, is adapted and extended from ACLT. The ACLT model examined five social and personality factors by, including informative susceptibility, normative susceptibility, value consciousness, integrity, and personal gratification. Informative susceptibility and normative susceptibility are two forms of consumer susceptibility to social influence (Bearden et al., 1989). Informative susceptibility concerns purchase decisions, which are based on the expert opinions of others, and normative susceptibility concerns purchase decisions, which are based on the expectations of what would impress others (ACLT, 2001). As software piracy is not legal/ethical and does not have a positive social image, consumers with higher susceptibility to social influence may present negative attitudes toward software piracy. Value consciousness is defined as a concern for paying lower prices, subject to some quality constraints (ACLT, 2001; Lichtenstein et al., 1990). As pirated software usually provides similar functions to the legal version of software but with a lower price, consumers who are value-conscious may have positive attitude towards software piracy. Integrity represents the level of consumers' ethical standards and obedience to the law. The More important integrity is to a consumer, the more negative s/he will feel about software piracy. Personal gratification concerns the need for a sense of accomplishment, social recognition, and to enjoy the finer things in life (ACLT, 2001). Consumers with high personal gratification will value the legal version of software, thus have a negative attitude towards piracy.

Two new constructs, collectivism and novelty seeking, are added to the model in our study as social and personality factors influencing consumer attitudes. The collectivist culture has been used extensively to explain the difference in piracy rates and in consumers' ethical decision-making between eastern and western countries. At the macro-level, the collectivist culture is associated strongly with piracy rates in regression studies (Husted, 2000; Marron & Steel, 2000). In micro-level studies, culture is used popularly as a reason to explain the different attitudes toward and decisions on software piracy among various groups (Swinyard et al., 1990). The Chinese proverb "He that shares is to be rewarded; he that does not, condemned." is cited widely to refer the impact of the collectivist culture on software piracy.

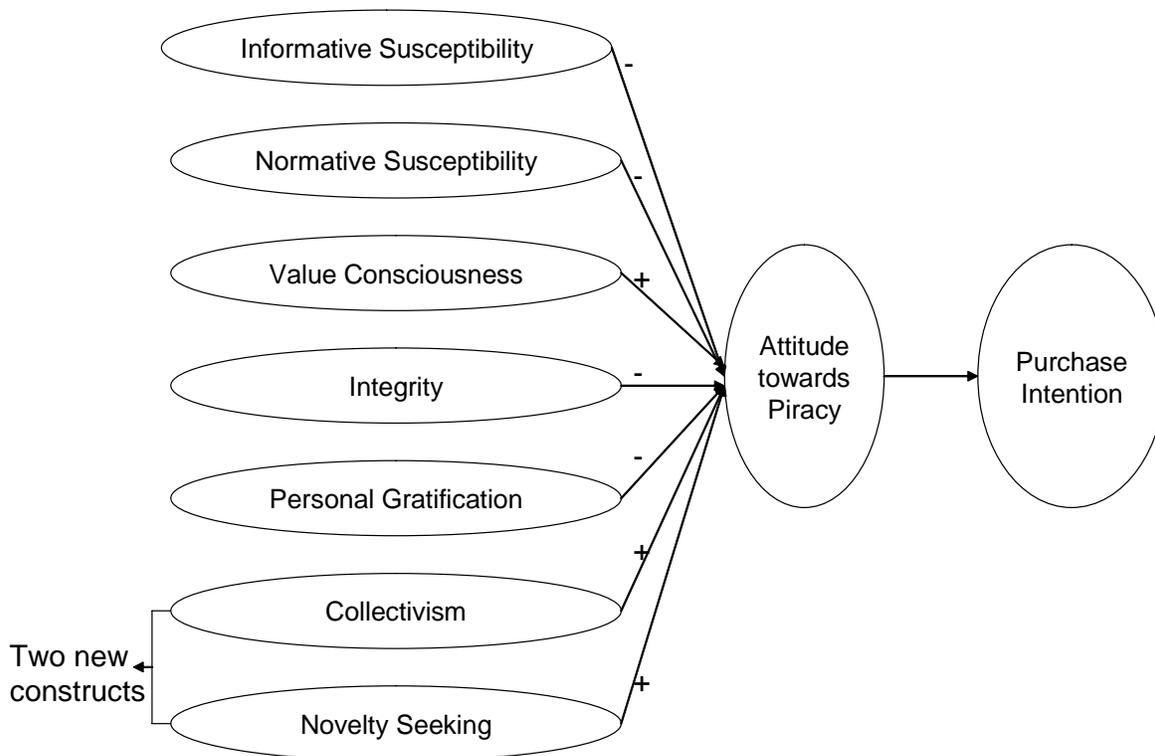


FIG. 1: A MODEL OF CONSUMER RESPONSES ON PURCHASING PIRATED SOFTWARE (ADAPTED AND EXTENDED FROM ACLT)

(Swinyard et al., 1990). However to the best of our knowledge, no research has directly examined the effects of the collectivist culture on individual consumer attitudes and decisions. Without this direct test, the leading relationship from the cultural factor to consumer responses to software piracy cannot be established appropriately. Meanwhile, if the cultural factor is a powerful explanation for software piracy, it has to be considered in the model. While at the national level, the Chinese as a group present a higher degree of collectivism, individual consumers may have different degrees of acceptance for the culture of software piracy. For example, some consumers may think that certain collectivist elements such as sharing and groups are more acceptable or desirable than others. The individual differences in agreeing to the collectivism will directly affect the consumer's attitude toward software piracy and his/her purchasing intention.

Another important factor is novelty seeking. Novelty seeking is curiosity of human to seek variety and difference (Hawkins et al., 1980). In an empirical study on consumer motivations for purchasing pirated software versus legal versions, Cheng et al. (1997) found that novelty (wanting to try out the software) is the second most important reason only behind cost consideration (software too expensive) out of the nine main reasons. Wee et al. (1995) found that novelty seeking is an influential factor for purchasing pirated software in student groups, but did not find it as an important influential factor in working adult samples. Novelty seekers may be more likely to purchase the legal version of software when satisfied with the product than consumers who are intensively value conscious. As software piracy can help promote the diffusion of legal copies (Givon, Mahajan, & Muller, 1995), the

novelty-seeking factor is an important factor to understand.

Marketing literature has firmly established that attitudes influence behavioral intentions (Ajzen & Fishbein, 1977). ACLT concluded in their study that attitude toward piracy was significant in influencing purchase intention. The attitude to behavioral intention links are tested also in our study.

To test the model in Figure 1, Hypotheses 1 and 2 are proposed in Table 1. In testing Hypothesis 2, we intend to identify the most important attitude measures influencing consumer purchase intention.

<b>Hypotheses in this research</b>	
<b>H1:</b> Relationships between social and personality factors and consumer attitudes toward software piracy	
H <sub>1a</sub>	Information susceptibility has a negative effect on consumer attitudes toward software piracy.
H <sub>1b</sub>	Normative susceptibility has a negative effect on consumer attitudes toward software piracy.
H <sub>1c</sub>	Value consciousness has a positive effect on consumer attitudes toward software piracy.
H <sub>1d</sub>	Integrity has a negative effect on consumer attitudes toward software piracy.
H <sub>1e</sub>	Personal gratification has a negative effect on consumer attitudes toward software piracy.
H <sub>1f</sub>	Novelty seeking has a positive effect on consumer attitudes toward software piracy.
H <sub>1g</sub>	Collectivism has a positive effect on consumer attitudes toward software piracy.
<b>H2:</b> Consumer attitudes toward software piracy leads to their purchase intention.	
<b>H3:</b> Attitude differences between buyers and non-buyers	

TABLE 1: HYPOTHESES

In analyzing consumer attitude, ACLT (2001) employed unstructured questions on: the risks in buying pirated CDs, trust in the stores that sell pirated CDs, worthy purchase, fairness to singers and music industry, the morality of buying pirated CDs, and the benefits to society, and found attitude differences between buyers and non-buyers of pirated CDs in terms of social fairness and benefits. In Hypothesis 3 (Table 1), the attitude differences between Chinese buyers and non-buyers of pirated software are proposed. However, the attitude components for Chinese in software piracy and for Singaporeans in CD piracy may not be the same. This research intends to identify important attitudinal aspects for Chinese consumers and the most important attitudinal aspects influencing consumer behavior in software piracy.

## Method

A survey was conducted on students of two universities in Beijing. Student samples have been used widely in research on software piracy (e.g., Cheng et al., 1997; Glass & Wood, 1996; Logsdon et al., 1994; Moores & Dhillon, 2000; Sims et al., 1996; Simpson, 1994; Swingyard et al. 1990; Wagner & Sanders, 2001; Wee et al, 1995). Due to the average low income, students are an important user group for pirated software. Research suggested that software piracy is prevalent in academia (Cheng et al., 1997). Meanwhile, as university students will dominate future management positions, their attitudes are important for understanding the future prevalence of software piracy (Oz, 1990).

### Measure Development

The questionnaire used in this research was in Chinese and consisted of five parts. Part I measured respondents' attitude toward software piracy; Part II measured their social and personality factors; Part III measured their purchasing intention; Part IV asked whether they had purchased pirated software before; and Part V collected demographic information. Seven-point Likert-scales were employed in Parts I – III of the questionnaire, with 1 representing “disagree or not important,” and 7 representing “agree or important.” Appendix 1 provides the construct measures used in the questionnaire in English.

Measures of the five social and personality constructs, tested by ACLT, are adapted from ACLT (2001) and other literature (Bearden et al., 1989). Novelty seeking is a relatively new construct for piracy research, and was tested by Wee et al. (1995) as a variable. Measures of cultural factors exist in literature, including cultural values

scale (Donthu & Yoo, 1998), Asian Values Scale (Kim et al., 1999), and universal structure of values (Schwartz & Sagiv, 1995). To identify good measures in novelty seeking and in individual responses to collectivism to reflect Chinese consumers in software piracy, a list of measures for novelty seeking and collectivism, was developed according to the meaning of the constructs and literatures. Two focus groups examined this list of measures, one with twelve Chinese students and another with ten Chinese industrial experts. According to their feedback and suggestions, four measures for each construct were selected. Four questions were asked to evaluate novelty seeking, including: “I am always one of the firsts to try new products”; “I am excited to purchase some interesting products”; “I own a lot of popular products”; “I keep up with fashion”. Instead of focusing on the relationship between an individual and others as used in some previous cultural values scales (such as Asian Values Scale (Kim et al., 1999)), the focus groups suggested that the specific aspect of sharing between an individual and others is more direct in reflecting the collective culture relevant to the Chinese response to software piracy. Thus, four questions to evaluate collectivism directly address the concept of sharing, including “he that shares is to be rewarded and he that does not, condemned”; “I like to share with others”; “I wish others can share with me”; “the more people share a product, the more valuable the product is”.

Measures of the attitude construct were developed based on responses from two focus groups on what are the important attitudes of Chinese consumers to software piracy. Four measures, of which two were adapted from ACLT, were developed on consumer purchase intention.

### Samples

A total of 340 questionnaires were distributed randomly to students on university campuses; 314 responses were received, with a response rate of 92.4%. Twelve responses were not completed appropriately, thus were excluded in the data analysis. A total of 302 responses were retained for data analysis through EXCEL and SPSS software.

Table 2 shows the sample distribution on gender and buying behavior. 52.3% responses are male and 47.7% are females. The rate of buyers (75.2%) is higher than non-buyers (24.8%), which reflected the high piracy rate in China (Traphagan & Griffith, 1998). Since the response rate of this survey is high (92.4%), this buyer/non-buyer distribution represents the real buyer/non-buyer distribution in university students in Beijing.

	Non-Buyers	Buyers	Total	Percentage
Male	11	147	158	52.3%
Female	64	80	144	47.7%
Total	75	227	302	100.0%
Percentage	24.8%	75.2%	100.0%	

TABLE 2: THE SAMPLE DISTRIBUTION

The Z-test is performed to test whether the percentages of buyers in different gender groups are the same under the assumption of the Binomial distribution. The results show that the Z-test statistics is -7.53, and the test significance level represented by p-value is much smaller than 0.001. This statistic confirms that the buying decision is biased by gender and that the percentage of buyers in the male group is larger than that in the female group (Moores & Dhillon, 2000; Rahim et al., 2000; Simpson et al., 1994; Sims et al., 1996; Solomon & O’Brien, 1990; Wong, 1985).

## Results

To validate the model in Figure 1 and test Hypotheses 1 and 2, regression analyses are carried out and discussed in sections 4.1 and 4.2. Section 4.3 examines hypothesis 3, and also provides an exploratory test to analyze the attitude construct.

### Relationships between Social and Personality Factors and Attitude

Following previous studies on piracy, such as ACLT, Logsdon et al. (1994), Tan (2002), and Wee et al. (1995), this study uses the method of regression to analyze relationships proposed in Figure 1. Since we would like to identify the most important factors influencing consumer attitude toward piracy, stepwise regression is used to analyze the relationships between the social and personality factors and the attitude construct. Stepwise regression is a hybrid

forward selection and backward elimination procedure (Jennrich, 1995). Stepwise regression is a good computer assisted model building method. It selects subsets of variables for researchers to consider and a good deal of insight can be obtained by watching the entry process (Jennrich, 1995). It is a suitable analysis tool as this study is one of the first to investigate software piracy in China and any detailed/underlying information can be useful. The independent variables are informative susceptibility, normative susceptibility, value consciousness, personal gratification, integrity, novelty seeking, and collectivism, and the dependent variable is consumer attitude toward software piracy.

First, reliability of the constructs is tested through Cronbach  $\alpha$  to evaluate the extent of consistency among construct measures. The value of Cronbach  $\alpha$  is 0.72 for the ten measures of the consumer attitude construct. The values of Cronbach  $\alpha$  for social and personality constructs are 0.71, 0.73, 0.80, 0.74, 0.80, 0.78, and 0.74, for informative susceptibility, normative susceptibility, value consciousness, personal gratification, integrity, novelty seeking, and collectivism, respectively. These values are all higher than 0.7, which demonstrates sound reliability of measures in these constructs (Nunnally, 1978; Rivard & Huff, 1988). Thus, the averages of measures of each construct are used as variables in regression analysis.

As shown in Table 3, four variables (value consciousness, normality susceptibility, novelty seeking, collectivism) are found important in influencing consumer attitudes toward software piracy, and is included in the final regression equation. Thus,  $H_{1b}$ ,  $H_{1c}$ ,  $H_{1f}$ , and  $H_{1g}$  are supported, and  $H_{1a}$ ,  $H_{1d}$ , and  $H_{1e}$  are not supported. The results from this study are consistent with the ACLT study in finding that normative susceptibility and value consciousness influence consumer attitudes toward software piracy ( $H_{1b}$  and  $H_{1c}$ ), and informative susceptibility and personal gratification do not ( $H_{1a}$  and  $H_{1e}$ ). Different from the ACLT study, integrity is not found as an important factor in influencing consumer attitudes ( $H_{1d}$ ). This finding is consistent with other studies (i.e., Logsdon et al., 1994; Simpson et al., 1994), which also found a weak relationship between consumer moral judgment and their response to software piracy. An explanation used in previous studies (Logsdon et al., 1994; Simpson et al., 1994) is that consumers do not consider software piracy as an ethical issue. Both of the two new constructs developed in this study are found to be important in influencing consumer attitudes, which indicates that the model proposed in this research is a valuable and important extension of the ACLT's. Especially, since culture is used widely as an explanation to consumer low moral intensity or ethical insensitivity of software piracy in ethics research (Logsdon et al., 1994; Swinyard et al., 1990), inclusion of the cultural factor (collectivism in this study) is important. Culture may be the reason for the different results of this study and ACLT's in evaluating the importance of integrity in influencing consumer attitudes toward software piracy.

Final Stepwise Regression Equation	B-values	Standard Error	Standardized Regression Coefficients	t-value	Significance Level
Value Consciousness	0.33	0.05	0.28	6.45	0.00
Normality Susceptibility	-0.04	0.01	-0.17	-4.17	0.00
Novelty Seeking	0.22	0.06	0.15	3.69	0.00
Collectivism	0.20	0.07	0.13	2.96	0.01
Constant Item	2.15	0.59		3.68	0.00
$R^2=0.22$ $F=12.18^{**}$					

TABLE 3: FINAL STEPWISE REGRESSION RESULTS ON FACTORS INFLUENCING ATTITUDE

#### Relationship between Attitude and Purchase Behavior

A stepwise regression also is used to test the influencing effects of attitude measures on purchasing intention. As the measures of the attitude construct may represent different, though related, aspects of attitude, and we intended to identify the most important measures, ten measures of the attitude construct are used as independent variables in regression. The Cronbach  $\alpha$  of the four measures of purchasing intention is 0.86, which demonstrates a consistency of construct measures. Thus, the average of the four measures of purchasing intention is used as the dependent variable in the regression analysis.

Table 4 shows the final stepwise regression results. For the overall sample, five independent variables

accounted for a  $R^2$  of 0.324 of the purchasing intention of pirated software. Five measures influencing purchase decision are product reliability (0.24), product functionality (0.15), social welfare (0.14), risks (0.10), and legal judgment (-0.09).

Final Stepwise Regression Equation	B-value	Standard Error	Standardized Regression Coefficients	t-value	Significance Level
Pirated software is as reliable as the legal software.	0.239	0.048	0.313	4.976	0.000
Without pirated software, many people will not be able to enjoy the benefits of using software.	0.142	0.049	0.181	2.873	0.004
Pirated software provides similar functions as the legal version.	0.146	0.058	0.170	2.524	0.012
There is little chance of being caught when purchasing pirated software.	0.103	0.046	0.137	2.256	0.025
Purchasing pirated software is illegal.	-0.0863	0.040	-0.128	-2.182	0.030
Constant	2.004	.384		5.217	0.000
$R^2=0.324$ $F=14.017^{**}$					

TABLE 4: FINAL STEPWISE REGRESSION RESULTS ON ATTITUDINAL MEASURES INFLUENCING PURCHASING INTENTION

#### Attitudes toward Software Piracy

In testing Singaporeans' attitudes toward pirated CDs, ACLT found that buyers and non-buyers had different attitudes toward software piracy. Compared to non-buyers, buyers of counterfeits perceive that the purchase of such products is less risky, worthier of purchase, will benefit society and entertainers more, as less unethical, and that stores selling counterfeits can be trusted.

To identify attitudinal differences to software piracy between Chinese buyers and non-buyers, ten measures were developed by the focus groups. Table 5 compares the attitudes toward software piracy of Chinese buyers and non-buyers. As the ACLT result, this study found the significant differences between buyers and non-buyer attitudes. Except for three measures (e.g., "Software piracy damages interests and rights of software manufacturers"; "Software piracy damages the software industry"; "Without pirated software, many people will not be able to enjoy listening to music"), attitudinal differences between buyers and non-buyers to the other seven measures were significant. Generally buyers showed more acceptable attitudes to software piracy than non-buyers. Thus,  $H_3$  was supported.

#### An Exploratory Study on Chinese Multi-attribute Attitude to Software Piracy

Given that ten measures were used in testing Chinese consumer attitude toward software piracy, an exploratory study was carried out to identify embedding attitude structure and developing multi-attributes for Chinese consumer attitudes toward software piracy. The multi-attribute attitude model (Bettman et al., 1975) is an important theoretical tool to evaluate consumer attitudes. Ten measures used in this study may represent certain attitude attributes, which form the basic and simpler attitudinal structure and help researchers to understand consumers.

Measures	Sample Average	Non-buyers	Buyers	t-value
<b>Attitude toward social consequences</b>				
Software piracy infringes intellectual property.	5.94	6.38	5.80	2.10**
Software piracy damages interests and rights of software manufacturers.	5.99	6.22	5.92	1.66
Software piracy damages the software industry.	5.38	5.59	5.31	1.58
Without pirated software, many people will not be able to enjoy listening to music.	5.30	5.24	5.32	-0.37
<b>Attitude toward pirated software</b>				
Pirated software has similar quality as the legal version.	3.74	3.30	3.88	-2.13**
Pirated software provides similar functions as the legal version.	4.50	4.04	4.65	-2.25**
Pirated software is as reliable as the legal software.	3.82	3.38	3.96	-2.56**
<b>Attitude toward piracy behavior</b>				
Purchasing pirated software is illegal.	3.73	4.23	3.56	2.73**
Purchasing pirated software is unethical.	3.85	4.41	3.66	2.84**
There is little chance of being caught when purchasing pirated software.	4.17	3.85	4.27	-1.88*

\*\* p<0.05, \* p<0.1

TABLE 5: COMPARISON OF BUYERS AND NON-BUYERS ATTITUDES

Consumer attitude attributes have not been investigated thoroughly by previous researchers on piracy studies. For example, while ACLT used twelve measures for Singaporean's attitudes to CD piracy, and subjectively grouped the twelve measures to seven sub-titles, ACLT used no quantitative method to verify the existence or appropriateness of these seven sub-titles. In a study on non-price determinants of intention to purchase counterfeit goods, Wee et al. (1995) also subjectively classified measures, which individually were found as purchase influencers, to the categories of psychographic, demographic, product-attribute variables in their discussions without further factor analysis. Without appropriate data analysis, these groupings cannot be used by researchers as a reference on attitude structure with confidence.

To test attributes of Chinese consumer attitudes on software piracy, an exploratory factor analysis was done. The significance level of Bartlett's test on attitude measures is 0.000 and the KMO measure is 0.072. Both show that it is appropriate to use factor analysis to uncover the underlying dimensions of the attitude measures. The principle component extraction method with varimax rotation is employed. Table 6 shows the factor loadings with the absolute value larger than 0.3, which is a threshold in factor analysis. Factor loadings below 0.3 can be ignored.

The resulting factor loadings in Table 6 clearly support the existence of three attributes of the attitude construct. An attitude attribute was named *attitude toward social consequences*, including measures, "Software piracy infringes intellectual property"; "Software piracy damages interests and rights of software manufacturers"; "Software piracy damages the software industry"; "Without pirated software, many people will not be able to enjoy listening to music". An attitude attribute, focusing on consumer attitude towards pirated products (e.g., "Pirated software has similar quality as the legal version."; "Pirated software provides similar functions as the legal version."; "Pirated software is as reliable as the legal software".), was named *attitude toward pirated software*. Another attitude attribute focused on consumer judgments toward piracy behavior, and thus was named *attitude toward piracy behavior*, with measures "Purchasing pirated software is illegal"; "Purchasing pirated software is unethical"; and "There is little chance of being caught when purchasing pirated software".

Attitude Measures	Factor Loadings		
	F1	F2	F3
<b>Attitude toward social consequences (F1)</b>			
Software piracy infringes intellectual property.	0.88		
Software piracy damages interests and rights of software manufacturers.	0.88		
Software piracy damages the software industry.	0.78		
Without pirated software, many people will not be able to enjoy listening to music.	0.67	0.46	
<b>Attitude toward pirated software (F2)</b>			
Pirated software has similar quality as the legal version.		0.80	
Pirated software provides similar functions as the legal version.		0.79	
Pirated software is as reliable as the legal software.		0.70	
<b>Attitude toward piracy behavior (F3)</b>			
Purchasing pirated software is illegal.			0.84
Purchasing pirated software is unethical.			0.82
There is little chance of being caught when purchasing pirated software.		0.47	0.67
Cronbach $\alpha$	0.75	0.73	0.68
R <sup>2</sup>	23.71%	23.02%	16.19%

TABLE 6: FACTOR ANALYSIS OF ATTITUDE MEASURES

Two measures, each from the attitude toward piracy behavior and the attitude toward social consequences, load on attitude toward pirated software. However, the loadings are rather low (less than 0.5). If a threshold of 0.5, which represents “high” in factor loadings, instead of 0.3, is used, these two loadings will be eliminated. The three attributes and their measures can be used in future research on consumer attitude toward software piracy. The three attributes explain 62.92% of total variance.

**Re-examine Findings from Hypothesis Testing by Multi-Attribute Attitude Structure**

As three attitude attributes were established in an exploratory factor analysis, we found it interesting to apply this attitudinal scheme to earlier data analysis results for hypothesis testing. First, the three attitude attributes were applied to the attitude comparison of buyers and non-buyers, shown in Table 5. Clearly, under the scheme of three attitudes, the differences between buyers and non-buyers were reflected intensely by their attitudes toward pirated software (product), and toward piracy behavior. Buyers had more positive views on pirated software and piracy behavior than non-buyers. This result is consistent with previous findings on buyer and non-buyer differences in evaluating related attitude measures on pirated product and piracy behavior (ACLT, 2001; Nia & Zaichkowsky, 2000; Wee et al., 1995). Except for one measure (software piracy infringes intellectual property), buyers and non-buyers did not show significant differences in evaluating social consequences. While buyers recognize the damage of software piracy to intellectual property, their recognition of the damage is significantly less than non-buyers. Generally, the group means for both buyers and non-buyers were above 5, which means that both buyers and non-buyers recognized the benefit and damages of software piracy to society.

Also interesting is the application of the three attitudinal attributes to results in Table 4 when analyzing important attitude attributes in influencing consumer purchasing intention. In the five measures listed in Table 4, two measures, “pirated software is as reliable as the legal software” (the first one in Table 4) and “pirated software provides similar functions as the legal version” (the third one in Table 4), are for the attitude attribute toward pirated software. Two measures, “purchasing pirated software is illegal” (the fifth one in Table 4) and “there is little chance of being caught when purchasing pirated software” (the fourth one in Table 4) are for the attitude attribute toward piracy behavior. One measure, “without pirated software, many people will not be able to enjoy listening to music”, is from the attitude attribute toward social consequences. This may suggest that different attitude attributes have different influencing power in the consumer’s purchasing intention, and the consumer’s attitudes toward pirated software and piracy behavior are more important when compared to the social consequences. This needs to be tested further in future research.

## Discussion

This research is one of the first to understand Chinese consumer attitudes in software piracy. In addition, this research extended a previously tested model by ACLT (2001) by adding two social and personality factors, collectivism and novelty seeking. These two factors were found important in influencing consumer attitudes. Different from ACLT results, integrity was not found to be an important influencer in consumer attitudes. This finding supported a conclusion provided by many other studies (Logsdon et al., 1994; Simpson et al., 1994) that there was a weak relationship between consumers' moral judgment and their response to software piracy. Confirming ACLT results, this research found normative susceptibility and value consciousness important, and informative susceptibility and personal gratification not important in determining consumer attitude.

This research redesigned measures based on an analysis of the Chinese markets. To further analyze the attitudinal structure of the Chinese for software piracy, this research conducted an exploratory factor analysis, which was rarely attempted in previous studies and needed to be researched further. Three attributes of consumer attitudes toward software piracy (attitude toward social consequences, attitude toward pirated software, and attitude toward piracy behavior) were established. Attitude toward pirated software (product) concerns the consumer's evaluation of pirated products compared to legal software. Consumer attitudes on product attribute were found to be relevant in previous research. Wee et al. (1995) found that product attribute variables were important in explaining purchase intention toward counterfeit products. Nia and Zaichkowsky (2000) found that those consumers who owned only original goods and no counterfeits believed that counterfeits were inferior products; those who owned counterfeits had a positive image of them and did not believe these products were inferior. Attitudes toward piracy behavior concerns the consumers' legal and ethical judgments and their risk evaluation of the piracy behavior. These factors are important in consumer decision making (Tan, 2002; Wang, Zhang, & Ouyang, 2003). Attitudes toward social consequences concerns the consumer evaluation of the benefits/damages of the software piracy to society.

In applying the three attitude attributes to examine data analysis results in this research, we found that the different attitudes toward piracy between buyers and non-buyers reflected mainly on attitude measures toward pirated software and piracy behavior. Attitudes toward pirated software and social consequences were found important in determining future purchase intention.

The research has the following limitations: first, the survey was conducted in a university setting, using a student population sample. Researchers have raised concerns about the generalizability of student-based findings across the consumer population (Burnett & Dunne, 1986; Park & Lessig, 1977; Szymanski & Henard, 2001). In general, responses of college student subjects tend to be slightly more homogeneous than those of non-student subjects (Peterson, 2001). These sampling issues may influence how students evaluate each construct, and the relationships among constructs. In particular, students may not be a good representative for the Chinese population. However, our research is not only "effects application research" (Calder et al., 1981) at the descriptive level (Farber, 1952) for analyzing Chinese markets, but also "theory application research" (Calder et al., 1981) at a "conceptual level" (Farber, 1952) in establishing and validating a research model for Chinese consumers. As research with a theoretical nature, the use of college students is supported (Calder et al., 1981; Peterson, 2001). However, caution must be exercised when generalizing findings from this study.

Following many previous studies in this area including the ACLT, this research employs the regression method to analyze relationships among the three layers of constructs in the model. As the most important factors influencing consumer attitude and purchase intention can be easily identified through regression, and as constructs and measures were under development in this study for the Chinese software piracy research, the model is not tested as a whole. Based on the findings of this research, future studies may possess a more mature theoretical foundation in analyzing Chinese markets, and thus employ a model-testing method, such as the structural equation modeling (SEM), to validate a consumer attitude model as a whole.

Summarizing the findings and limitations of this research, we suggest a new model, shown in Figure 2, to be tested in future research. This model eliminates the unimportant social and personality factors (namely, informative susceptibility, integrity, and personal gratification), and focuses on four important factors (namely, normative susceptibility, value consciousness, collectivism, and novelty seeking). It incorporates three consumer

attitude constructs, which are established in this research.

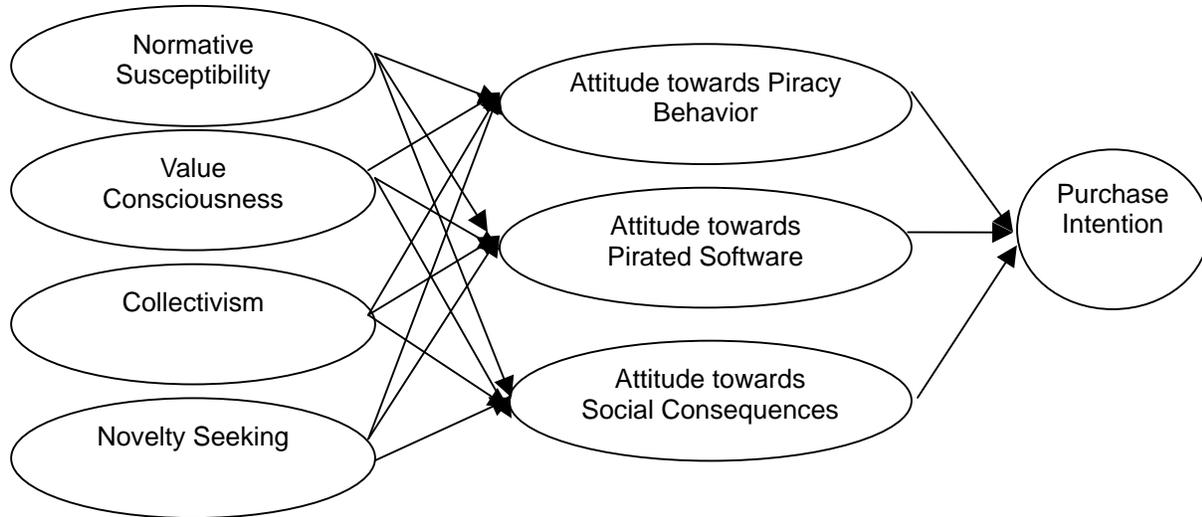


FIG. 2: A SUGGESTED MODEL FOR FUTURE RESEARCH

This research contributes to both theory development and industrial practice. In theory development, we re-designed the model and research, analyzed Chinese consumers in software piracy, established three attitude attributes, and suggested a new model. For industry practitioners, this research provides an in-depth understanding of Chinese consumers, which can be used in designing anti-piracy education strategies in China. This research suggests that product differentiation between legal and pirated software is a key to prevent piracy. Vendors can educate consumers or reinforce consumer perceptions that legal software is more functional and reliable than the pirated one. Vendors can provide superior services, such as technical support, warranties, or updates, to differentiate from pirated software. Finally, offering education on the legality of purchasing pirated software may be an essential tool in reducing piracy rates in China.

## References

Contact the Author for a list of references.

## Appendix 1: Measures in the Questionnaire

1. Informative susceptibility
  - To make sure I buy the right product or brand, I often observe what others are buying and using.
  - If I have little experience with a product, I often ask my friends about the product.
  - I often consult other people to help choose the best alternative available from a product class.
  - I frequently gather information from friends or family about a product before I buy.
2. Normative susceptibility
  - It is important that others like the products and brands I buy.
  - If other people can see me using a product, I often purchase the brand they expect me to buy.
  - I like to know what brands and products make good impressions on others.
  - If I want to be like someone, I often try to buy the same brands that they buy.

3. Value consciousness
  - I am concerned about price and product quality.
  - I compare prices for the best value for money.
  - I like to be sure that I get my money worth.
  - I try to maximize the quality for the money spent.
4. Integrity
  - I value honesty.
  - I value politeness.
  - I value responsibility.
  - I value self control.
5. Personal gratification
  - A comfortable life is important to me.
  - An exciting life is important to me.
  - A sense of accomplishment is important to me.
  - I value pleasure.
  - I value social recognition.
6. Collectivism
  - He that shares is to be rewarded and he that does not, condemned.
  - I like to share with others.
  - I wish others can share with me.
  - More people share a product, the more valuable the product is.
7. Novelty seeking
  - I am always one of the firsts to try new products.
  - I am excited to purchase some interesting products.
  - I own a lot of popular products.
  - I keep up with fashion.
8. Attitude toward piracy
  - 8.1 Attitude toward social consequences
    - Software piracy infringes intellectual property.
    - Software piracy damages interests and rights of software manufacturers.
    - Software piracy damages the software industry.
    - Without pirated software, many people will not be able to enjoy listening to music.
  - 8.2 Attitude toward pirated software
    - Pirated software has similar quality as the legal version.
    - Pirated software provides similar functions as the legal version.
    - Pirated software is as reliable as the legal software.
  - 8.3 Attitude toward piracy behavior
    - Purchasing pirated software is illegal.
    - Purchasing pirated software is unethical.
    - There is little chance of being caught when purchasing pirated software.
9. Purchase Intention
  - I would recommend pirated software to a friend.
  - Upon request, I will consider purchasing pirated software for a friend.
  - I will buy pirated software.
  - I will buy pirated software from peddlers.

## Social Responsibility of Public Transport Undertakings

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### Abstract

In India, the investment in transport sector has immensely benefited the economy. There has been a shift towards road transport, both in passenger and goods segments. While the passenger transport sector was dominated by private operators before independence, post independence era has seen a major shift towards nationalization of road transport services. The major objective of nationalization was to provide high quality, reliable service to the public and fulfill the social responsibility towards all the stakeholders. While many nationalized transport organizations strived to fulfill this social responsibility, they failed to become commercially profitable. As a consequence, many state governments started allowing private transport operators in the sector. The coexistence of both the nationalized and private operators is expected to generate competition and result in better quality service to the passengers. This paper analyzes the extent of fulfilling the social responsibility by the nationalized and private transport operators from the point of view of quality of service, level of employee welfare, special concessions to disadvantaged sections of the society etc.

### Introduction

Transport sector bears a close and complex relationship with all other sectors of country's economy. Rapid growth of urban population, large scale manufacturing activities spread across the country, modern living habits have contributed to the development of various modes of transport across the world.

In India, planning and investment in transport sector has immensely benefited in achieving rapid growth in the economy, employment and access to rural settlements. During the last five decades there is a shift from Railways to Road transport in respect of passenger movement. Currently road transport accounts for 80% of total passenger flows across the country.

Prior to the promulgation of Road Transport Corporations Act 1950, a number of small operators owning 1 or 2 buses were providing the service. The government felt the need for improved and reliable services in this sector for overall economic development.

In India, as in many other parts of the world, investment in road transport is treated as a part of Public provision of services whereby one of the key objectives of this provision has been to meet the social obligations of an affordable, safe and reliable bus service to the people. Accordingly, the Road Transport Act 1950 enabled States and Central Governments to take initiative to form the Road Transport Corporations. Similarly, the Motor Vehicles Act 1950 was subsequently amended to make special provision for State Transport Undertakings (STUs). This Act was further amended in 1969 for promoting State monopoly in passenger road transport services. Despite its (Public bus operations) prime position in the movement of people especially in remote rural areas, these Public undertakings are subjected to criticism due to heavy losses incurred by them every year. Consequently, many states amended the legislation allowing private operators to provide transport services in the state. Thus, in many states, private as well as nationalized operators operate the road transport services simultaneously. Currently private operators account for 80 per cent of passenger transport services in India. The private operators own a fleet strength of 4,38,000 buses compared to 99,000 in the Public sector [4]. While the Public sector RTCs are geared towards Public good the private sector's primary aim is profit. There were cases in Rajasthan, Orissa and Bhopal where the private operators resorted to non-payment of taxes, exploitation of the traveling Public and high incidence of accidents [1]. Similarly, in Visakhapatnam, Vijayawada and Srikakulam in the state of Andhra Pradesh, the private operators failed to discharge their social obligation, which forced the State Governments to intervene and direct the state, owned APSRTC to introduce bus services in these districts [2].

In the state of Karnataka road transport services are provided by both Public sector by four corporations

- (i) Bangalore Metropolitan Transport Corporation (BMTC),
- (ii) Karnataka State Road Transport Corporation (KSRTC),
- (iii) North West Karnataka Road Transport Corporation (NWKRTC)
- (iv) North East Karnataka Road Transport Corporation (NEKRTC).

However, there is no competition among the Public undertakings as the districts of operation in the State are divided among them. BMTC caters exclusively in Bangalore Metropolitan Region.

The Private operators are registered with Regional Transport Authority in every district. Their number runs into hundreds in the study region. The districts of Karnataka can be clearly delineated into three categories: those where only the Nationalized services are allowed to operate (Category I); those where only private operators are allowed to operate (Category II), and those where both private and Nationalized services are allowed to operate simultaneously (Category III). The competition between the private and nationalized services is expected to improve the efficiency and generally work in favor of the passengers. It is expected that the passengers get better service, lower fares and higher reliability because of the competition. This paper attempts to compare the service levels provided and social responsibility undertaken by the private and nationalized operators. Since Karnataka state has delineated the services geographically, it provided an ideal setting for such a comparison.

Karnataka is one of the major states in India and situated on the western edge of the Deccan plateau. It has for its neighbors Maharashtra and Goa on the north, Andhra Pradesh on the east, Tamil Nadu and Kerala on the south, and on the west it opens out to the Arabian Sea. It has an area of 191,791 sq km. Bangalore, nicknamed as the Silicon Valley of India, is the Capital of this southern state. Fig. 1 provides the location of the state of Karnataka in India. The map of Karnataka with the administrative details is shown in Fig. 2.



FIG. 1: MAP OF INDIA SHOWING THE STATE OF KARNATAKA

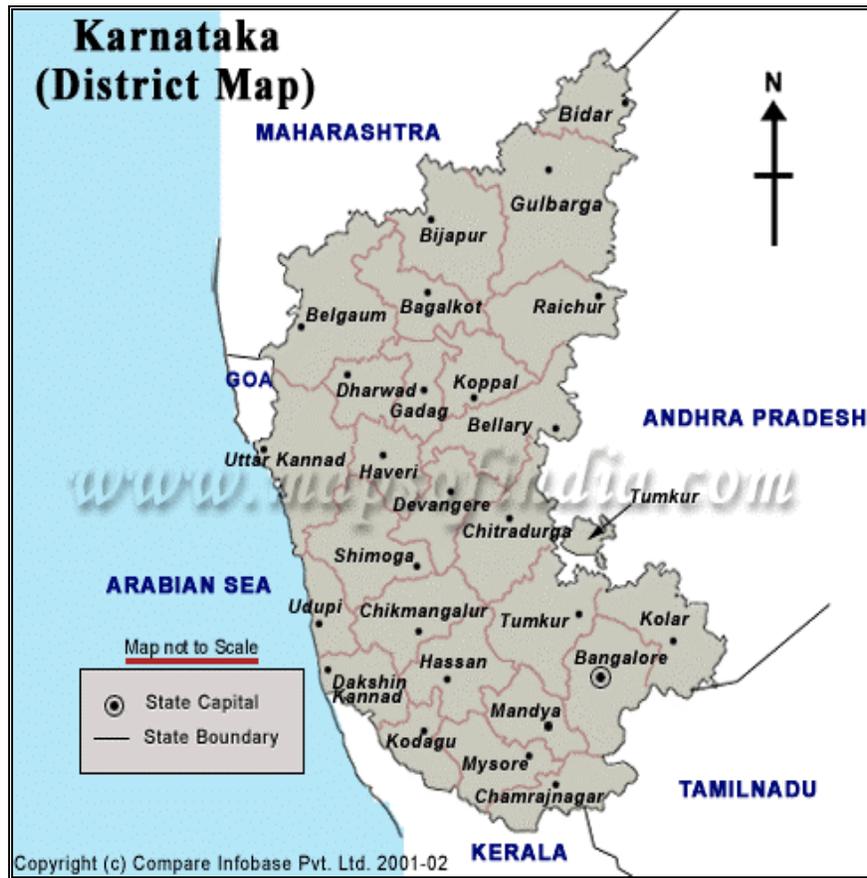


FIG. 2: MAP OF THE STATE OF KARNATAKA

The state is divided into 27 districts and is well connected by Roads, Railways, Airways and Waterways. Motorable roads are 150,000 km in length while rail network is about 3500 km. Karnataka is predominantly an agrarian state with about 65% of its working force engaged in agricultural and allied activities, which generate 42% of the state income.

### Objectives of the Study

Against the above background, the objectives of this study are as follows:

- To understand the functioning of passenger transport services in the state by different operators, in nationalized, non-nationalized and semi-nationalized transport service districts of the state.
- To measure, based on certain parameters, the current level of customer satisfaction, with the transport services provided.
- To compare services offered by Public with those offered by the private operators with respect to quality, cost, equity and other parameters.
- To assess the coverage of rural settlements
- To measure, the quantifiable concessions provided by the operators.

## Methodology

To provide a proper representation, a two-stage sample design was adopted. First, districts were selected in each category of operations: These are: Hassan, Dharwad and Gulbarga under Category I; Mangalore and Davanagere under Category II; and Mandya and Kolar in Category III. The second stage included the selection of routes in each district. The routes that were in operation within the district only were considered for the study. A random sample of 10% of the total schedules operated, with a minimum of five operators (in the districts where private operators are allowed) in each district was selected. The sample was selected in such a way that both moffusil and city services were included. For this purpose, certain amount of stratification was done in the sampling procedure. Finally, The sample includes a minimum of ten commuters on each schedule and two opinion makers from the villages covered in each schedule.

The primary focus of the study was to assess the perception of different stakeholders regarding the operations of different services by PUBLIC and private operators. Thus various stakeholders such as operators, commuter and travelers, opinion makers and intelligentsia were covered. Data with respect to the extent of services provided by the operators as well as various quality indicators were collected through a structured questionnaire.

**Employees of the Operators** – Data from the employees of the operators including, the drivers, conductors, etc. were collected through a structured questionnaire. In addition, focus group discussions were carried out. A suitable sample of the employees was selected for this purpose. The information thus, collected included career progression, remuneration, incentive schemes, if any, and training provided, etc.

## Sample Profile

### Route Characteristics

The distribution of sample routes based on route length is provided in Table 1.

TABLE 1: DISTRIBUTION OF THE SAMPLE ROUTES BASED ON ROUTE LENGTH

District	Upto 10 kms	Over 10 - 25 kms	Over 25 - 50 kms	Over 50 kms	Total
Mandya	7.14%	28.57%	53.57%	10.71%	100%
Kolar	2.44%	24.39%	53.66%	19.51%	100%
Hassan	3.57%	50.00%	35.71%	10.71%	100%
Gulbarga	8.33%	37.50%	50.00%	4.17%	100%
Davanagere	10.71%	14.29%	46.43%	28.57%	100%
Dharwad	18.18%	31.82%	40.91%	9.09%	100%
Mangalore	6.67%	30.00%	43.33%	20.00%	100%
Total	7.46%	30.35%	46.77%	15.42%	100%

The data indicates that the information is collected across different route lengths in a district operation. Table 2 provides the sample routes based on route length and operator.

TABLE 2: DISTRIBUTION OF SAMPLE ROUTES BASED ON ROUTE LENGTH AND OPERATOR

District	Upto 10 kms	Over 10 - 25 kms	Over 25 - 50 kms	Over 50 kms	Total
Nationalised					
Mandya	15.38	23.08	53.85	7.69	100
Kolar	3.85	26.92	53.85	15.38	100
Hassan	3.57	50.00	35.71	10.71	100
Gulbarga	8.33	37.50	50.00	4.17	100
Dharwad	18.18	31.82	40.91	9.09	100
Total	8.85	35.40	46.02	9.73	100
Private					
Mandya		33.33	53.33	13.33	100
Kolar		20.00	53.33	26.67	100
Davangere	10.71	14.29	46.43	28.57	100
Mangalore	6.67	30.00	43.33	20.00	100
Total	5.68	23.86	47.73	22.73	100

It may be noted that both types of operations are adequately covered to draw meaningful conclusions.

**Characteristics of Commuters and Opinion Makers**

The characteristics of the commuters and the opinion makers with respect to their age, educational qualifications occupation and income range are presented in Table 3.

TABLE 3: SAMPLE PROFILE OF THE COMMUTERS

Characteristic	Commuters	Opinion Makers
<b>Age</b>		
<20 Yrs	166	4
20-35 Yrs	1012	153
35-50 Yrs	576	152
50-65 Yrs	173	76
> 65 Yrs	17	5
No Response	56	9
<b>Residence</b>		
Urban	477	187
Rural	1523	212
<b>Education</b>		
Illiterate	236	11
Literate	105	12
Primary School	398	49
High School	653	153
Graduate	506	146
PUC/12th Std.	46	15
Diploma/UG	21	1
PG-Professional	2	1
PG-General	1	1
Others	14	6
No Response	18	4
<b>Annual Income</b>		
< Rs.5000	186	12
Rs.5000-12000	867	95
Rs.12000-25000	370	75
Rs.25000	513	212
No Response	64	5
<b>Occupation</b>		
Student	317	0
Agricultural Labour	618	0
Worker	413	0
Business	287	175
Housewife	151	0
Govt. Servant	144	56
Others	52	19
No Response	14	1
Unemployed	4	0
Teacher	0	29
Elected representative	0	40
Village elder	0	79

Data was collected from 2000 commuters and 399 opinion makers. The sample covered all selected routes. Of the 2000 commuters in the sample, 1119 were drawn from the routes operated by Nationalized operators and the remaining 881 were drawn from the routes operated by private operators. Similarly, 148 of the 399 opinion makers

were drawn from Category I districts, another 116 from Category II districts and the remaining 135 were drawn from Category III districts. The sample profiles of the commuters and opinion makers are presented below.

The profile of the commuters with respect to their place of residence, age, education, occupation and income are presented in Table 1. Most of the respondents were from the rural areas accounting for 76.2 per cent of the total. Only 11 per cent of the sample respondents belonged to the illiterate category. Those with high school education accounted for almost one-third of the total respondents. Most of the respondents belonged to the age group of 20 – 35 years, accounting for about 50 per cent. The next largest group was between 35 – 50 years of age. These two categories together (i.e., 20 – 50 years of age) accounted for almost 80 per cent of the sample.

The most predominant occupation across all the districts was agriculture. Out of a total of 2000 respondents, 618 belonged to the category of agriculture laborers. The unemployed accounted for less than 1 per cent of the total respondents. Considerable number of respondents comes from business.

The predominant income group consisted of those earning between Rs. 5,000 and 12,000 per annum, accounting for almost 44 per cent. At the same time there was fairly large number of respondents belonging to the income group of more than Rs. 25,000. Very few were in the category of less than Rs. 5,000 per annum.

Thus the typical respondent was from rural region in the age group of young or middle age with primary or high school education and having an income level of less than Rs. 5,000 – 12,000, the predominant occupation being agriculture labour or worker.

In addition to the commuters, some of the opinion makers such as village elders, elected representatives, teachers, businessmen etc. were also covered in the study. A total of 399 such persons were surveyed. Most of these persons were in the age group of 20 to 50 years. About 53 percent of those sampled lived in villages. More than 38 percent of them had completed high school and another 36 percent were graduates. There were also few postgraduates. Only 11 out of the 399 were illiterates. The predominant occupation was business. The village elders constituted the second largest group. There were 40 elected representatives and another 56 government servants. More than 50 percent of the respondents had an annual income of above Rs. 25,000 per annum. Another 25 percent had annual income of between Rs. 5,000 and 12,000. Only 12 persons had an annual income less than Rs. 5,000. In summary the sample of the opinion makers consisted of persons who are middle aged and well educated predominantly businessmen or elected representatives or village elders. They have a fairly high level of average annual income. They are distributed more or less evenly between the rural and urban areas. The composition of the group was such that they could be considered as the opinion makers in the area.

#### **Characteristics of Employees**

A total of 467 employees were interviewed from the 7 sample districts. Of these, 223 were from the Nationalized service and the remaining were from private operators. The district wise distribution of these 467 employees is presented in Table 4.

TABLE 4: DISTRICT-WISE DISTRIBUTION OF THE SAMPLE EMPLOYEES

District	Nationalized	Private	Total
Mandya	24	45	69
Kolar	52	43	95
Hassan	56		56
Gulbarga	48		48
Dharwad	43		43
Davangere		78	78
Mangalore		78	78
Total	223	244	467

The employees in the sample were primarily the drivers, conductors and cleaners. In addition to these categories of employees, the sample included 9 others, consisting of clerks and agents. The distribution of these employees is presented in Table 5.

TABLE 5 DISTRIBUTION OF SAMPLE EMPLOYEES BY DESIGNATION

Designation	Nationalized	Private
Driver	112	88
Conductor	110	78
Cleaner		70
Others	1	8
Total	223	244

The employees in the sample consisted of almost equal number of drivers and conductors. The cleaners in the sample are exclusively from the private operators. The sample employees from the private operators were more or less evenly divided between the three groups namely, drivers, conductors and cleaners.

There was a marked difference between the employees of Public and private operators in terms of the age group. The predominant age group (55%) was 35 to 50 years among Nationalized service employees sampled, while among private operators, majority (70%) of the employees belonged to the age group of 20 to 35 years. In general, the sample employees of private operators were younger as compared to the Nationalized service. The age-wise distribution of the sample employees is presented in Table 6.

TABLE 6 AGE-WISE DISTRIBUTION OF SAMPLE EMPLOYEES

Age Group	Nationalized	Private
Less than 20 Yrs		9
20-35 Yrs	73	171
35-50 Yrs	122	55
50-65 Yrs	28	7
No Response		2
Total	223	244

## Analysis

The analysis of the data collected from the commuters' employees of Nationalized and private operators and discussions with individuals in different villages is presented in the following paras. The analysis is broadly divided into the following heads.

- Quality of service provided as per the perception of commuters and individuals (opinion makers).
- Employee perceptions
- Frequency of services maintained during peak and off-peak period especially in urban areas.
- Linkages to rural settlements as perceived by commuters and opinion makers.
- Concession extended to different sections of consumers.

### Quality of Service

Quality is an abstract entity and subjective in character. It is simply an expression of the extent to which the service provided by an operator fulfils the expectations of the customer concerned. As such, there will be variations in perception of quality of service enjoyed by different customers for the same operation. Most of the commuters filled up the schedules during the course of their journey. As such they might be influenced by the service enjoyed in that trip. The discussions with opinion makers took place at their residences, as such; their perceptions could reflect the overall service provided by the operators in their respective districts.

The term quality may include many components such as

- Comfort and convenience
- Schedule details
- Crew behavior aspects
- Cost and other miscellaneous factors

The stakeholders on the basis of perception on a number of measurable attributes of that component perceive each component. Table 7 provides the possible attributes for different components listed above.

TABLE 7: ATTRIBUTES CONSIDERED FOR SERVICE QUALITY

Comfort and Convenience	Schedule and Operations	Crew Behavior	Cost & Others Aspects
Overloading	Notification of schedules	Courteousness with passengers	Notification of fares
Boarding and alighting	Following the schedule	Helping children and old age people	Returning small change
Seating arrangement	Prompt service during break down	Appearance of the crew	Adequacy of fares
Movement within the bus	Maintenance of vehicles	Neatness and professionalism	Reasons for break down
Driving comfort	Cancellation of schedules	Attitude of the crew in general	Charges for luggage
Travel time	Arrival / Departure timings		
First-aid service			
Luggage allowance			
Stopping at the bus stops			

#### Total Quality and Overall Perception

Data was collected from each of commuters and the opinion makers in terms of their perceptions on the attributes listed above. The respondents were asked to answer “yes or no” with respect to each of the attributes listed above for the nationalized as well as private service operators. The responses are summarized in terms of the proportion of persons who responded positively to each of the attributes. Thus, in the case of the attribute “Quick and prompt service during breakdowns”, 93 percent of commuters felt that the Nationalized operators are able provide immediate service, where as the only 62 percent of the respondents felt that such prompt relief service provided by private operators. These proportions are considered as scores representing then quality of service with respect to that particular attribute. These scores for all the attributes for the component “Schedules and Operations” are presented in Table 8. The overall score for this component is arrived at by simple arithmetic addition of the scores of each of the attributes. Thus, the overall score on this component for the Nationalized service (category I districts) is 5.74 and for the private operators (Category II districts) is 3.57. This procedure assumes that each of the attributes in that component is given equal weightage in the calculation of overall score for that component.

TABLE 8: OVERALL SCORE FOR SCHEDULE AND OPERATIONS

Attribute	Nationalized	Private	Nationalized/ Private
Perception of commuters			
Quick and prompt service during breakdowns	0.93	0.62	0.68
Better maintenance	0.89	0.49	0.77
Less prone to accidents	0.9	0.24	0.85
Less breakdowns	0.54	0.46	0.6
On-time arrival and departure	0.85	0.86	0.76
Notification of the schedules	0.78	0.45	0.65
First Aid in case of accidents	0.85	0.45	0.72
Overall score	5.74	3.57	5.03

Table 9 presents the combined picture, taking into account all the four major dimensions discussed above. The procedure followed is indicated below for the attributes of the component concerning schedule and operations.

TABLE 9: COMBINED TOTAL QUALITY AND OVERALL PERCEPTION

Item	Nationalized	Private	Nationalized/ Private
Perception of commuters			
Comfort and convenience	5.59	2.97	4.24
Scheduling and operation	5.74	3.57	5.03
Crew behaviour aspects	2.44	1.69	2.18
Fares and other issues	1.76	1.74	1.9
Total score	15.53	9.97	13.35
Perception of opinion makers			
Comfort and convenience	3.34	1.99	2.95
Schedules and operation	2.292	1.25	1.99
Crew behavior aspects	1.63	1.15	1.45
Fares and other issues	0.75	1.25	1.2
Total score	8.012	5.64	7.59
<i>Overall satisfaction of service (%)</i>			
Commuters' perception	0.65	0.34	0.49
Opinion makers' perception	0.6	0.41	0.58

The combined total score is calculated by simple addition of the scores for each of the major items. This assumes that equal weightages for each of the four major heads under which the quality is assessed. The overall score of combined quality of service provided as per the perception of commuters traveling both in Nationalized and private buses is in favor of Nationalized service, followed by combined operations. The overall score of the opinion makers is also similar indicating that the Nationalized bus operations are superior to private operators. The opinion makers are also of the view that combined operations (both Nationalized and private) is next best rather than exclusive private operations.

**Employee Perception**

Employee opinion is summarized under the following heads –

- Average Working hours / day
- Number of continuous hours at a stretch
- Remuneration and other privileges
- Promotional opportunities
- Cooperation from superiors
- Views about privatization

Their opinions are summarized in Table 10.

TABLE 10: EMPLOYEE OPINION

Item	Nationalized	Private
Working hours/day	10.30	11.32
Continuous work at a stretch (Hrs)	3.74	5.84
Kilometers run/day	306.62	269.96
Remuneration (Rs/Month)	4071	2888
Other privileges (LTC, Medical aid etc)	Available	Very rarely given
Promotional opportunities	Seniority basis	No promotion
Cooperation from superiors	Rarely	Rarely
View of privatization	Not required	Not always required

Most of the private operators do not paying minimum wages as stipulated by the law. Instead, they pay only on a daily basis. Most of these employees are not covered by Provident Fund act and they are not provided with rest places at the end of their journey. There are very few promotional opportunities even after serving with a private operator for more then 20 years. The situation is totally different in the case of nationalized operations. Their employees are provided with all the statutory benefits that accrue to the Government employees and there is no exploitation. Thus, nationalized services are able to take care of all the social obligations to a large extent whereas their counter parts in the private domain are mostly guided by their profitability rather than social objectives. The average number of persons employed by Nationalised operators works out to 5.89 per bus compared to 2.20 by private operators. From the point of view of employees perception privatization is not beneficial either to the workers or to the commuters.

#### **Frequency of Services**

Most of the private operators do not maintain detailed database about their operations. However, Nationalized service operators are always maintaining complete database on all aspects of their operations. A perusal of the data maintained by Bangalore Metropolitan Transport Corporation (BMTc), in one of their depots indicate that out of 400 schedules operated, 240 are operated during non-peak hours. The load factor during non-peak hour varies from mere 10% to 48%. BMTc is operating schedules from early morning around 4.00 a.m. to night 10.30 p.m. In the perception of the public, private operators mostly (85 to 90%) run their schedules during peak hours. Their non-peak hour operations are always delayed or cancelled.

#### **Coverage of Rural Settlements:**

As per the perception of commuters, the coverage of the Rural settlements the private sector is slightly better in providing the rural coverage. Data was collected on the extent of coverage in rural areas, as per the perception of the commuters. These percentages as perceived by them are averaged and printed below.

- Regions where only Nationalized services are available 59.84%
- Regions where only private services are available 65.41%
- Both Nationalized /private operations are computing 54.87%

The above percentages are only perceptions and the actual coverage could be accurately estimated after the publication of the recent census data.

#### **Concessions Extended**

In India, it is common practice to extend some concessions to needy sections of society. Different concessions extended include:

- Student passes
- Senior citizen passes
- Disabled person passes (for the physically challenged persons)
- Worker passes

For example, the number of student passes issued by Nationalized operators in Karnataka during the year 2002; as per “TN stores mode study” [3] is about 6,38,456. It is also estimated that the value of the revenue loss to the operators is about Rs.1035.58 million per year.

The student passes account for about 90% of the total concessions provided by the operators. The private operators are on record about extending a number of concessions to the commuters. However, discussions with stakeholders indicate that the concessions are provided only to students and that too in a very nominal way. The private operators do not maintain any record, to assess the quantum of revenue loss.

## **Conclusions**

The categorization of the districts of Karnataka into three different categories with respect to the operation of passenger transport offers an ideal setting for analyzing the social responsibility of various players involved. The social responsibility is evaluated from the point of view of quality of service as perceived by the passengers and opinion makers, employee welfare as perceived by the employees, frequency and reliability of services, extent of coverage in rural areas and special concessions extended to the disadvantaged sections of the society.

It was found that the quality of service provided by the nationalized service providers as perceived by the passengers as well as opinion makers is better compared to that of the private operators. The Nationalized service providers have consistently scored better on all the aspects of quality considered in this study. Similarly, the extent of employee welfare activities undertaken by the nationalized transport operators is much higher as compared to that of the private operators. This perception is evident even among the employees of the private operators. The frequency of services offered by the Nationalized transport operators is much better compared to the private operators. On the other hand, the private transport operators appear to provide a larger coverage in the rural areas as compared to the Nationalized transport operators. This is based on the perception of the passengers as well as the opinion makers. At the same time, the Nationalized transport operators extend a large number of concessions to the students and workers, senior citizens and physically challenged persons. Thus, the Nationalized transport operators appear to be fulfilling their social responsibility better than the private operators. In that sense, they have fulfilled the major objective of the nationalization of the transport services.

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# The Management Challenge of Realising Purchaser-Provider Cooperation in the UK Public Healthcare Sector

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## Abstract

Based on a case study of two major stakeholder groups in a healthcare setting, the authors present findings using the views and perspectives of those stakeholders involved in the purchasing and delivery of public healthcare and identify and group relevant variables into four major themes or 'core categories' that characterise purchaser-provider stakeholder cooperation. The authors integrate a broad literature search with the exploratory research results, to present a descriptive framework for understanding stakeholder cooperation. We suggest that extending practitioners' understanding of the nature of these inter-related factors may lead to better insights of how interorganizational relations and partnerships might be managed more proactively throughout the healthcare value chain.

## Introduction

The healthcare environment has been described as 'turbulent' and even 'hyperturbulent' [35] [36][38] as most developed nations are struggling with the supply and demand issues of optimising their publicly-funded health systems using private sector mechanisms to pursue public sector goals [34]. In the UK, one of the most radical reforms of the National Health Service (NHS) occurred with the National Health Service and Community Care Act in 1990, which implemented with effect from 1<sup>st</sup> April, 1991 the principles of an internal or quasi-market. The prevailing view of the Government was that public health care service provision was becoming increasingly fragmented, outdated, inefficient, and driven by professional interests rather than the interests of the customer - the patient [24]. The reorganization of the NHS along a market system "would induce positive behaviour (by managers and professionals) which would work in the interests of patients, and that it would bring accountability and value for money within a proper management framework" [4, p. 23]. It also allowed the purchaser more choice regarding from whom they could purchase services. It was believed that this freedom of choice on the part of the purchaser would encourage the provider to be more efficient and offer a better quality of service to secure contracts, [27]. The new structure was all about managed competition...allowing limited competition for business between the providers - hospitals, community health services, ambulance services, and so on' [33].

Despite its shortcomings the incoming Labour government preserved the purchaser/provider split although with a new emphasis, 'co-operation not competition' between healthcare providers and purchasers [22][16]. The Government produced a White Paper entitled "The New NHS: Modern, Dependable" [Secretary of State, 1997] which outlined the Government's ten-year vision for the modernisation of the health service. The White Paper had a number of far reaching proposals to review and improve the NHS using 'evolutionary change rather than organizational upheaval' [7]. The eradication of the internal market with integrated care based on partnership and co-operation took place. Surprisingly however, the White Paper did not define either cooperation or partnership in non-clinical terms.

In light of these policy changes, our research examines the bases of positive relations between suppliers and purchasers of healthcare services and identifies a range of factors that characterize the relationships stakeholders have with each other. Specifically, we seek to explore the perceptions of the two main stakeholders in the supply chain. In doing so, we examine the nature of cooperation between the providers of healthcare services (hospitals) and those who commission and purchase healthcare on behalf of patients (regional health authorities).

“Stakeholders are those individuals, groups, or organizations who have a contractual, ethical, financial, or political interest (i.e., a stake) in the decisions and actions of a particular organization” [37, p. 20]. In the extant literature, there is a paucity of research that has illustrated multi-stakeholder perspectives in the public sector. Our research seeks to address this gap.

It should be noted that a third group of stakeholders, the consumers (patients) were studied as part of the wider research programme from which this research is taken. The researchers acknowledge that patients are key stakeholders but their perspectives were not included because their view of the relationship between purchasers and providers is very much over-shadowed by their own personal experience of the hospital. The patient does come into contact with a number of smaller internal stakeholder groups which may include the receptionist on the desk, nurses, doctors, rehabilitation staff and management, all of which colour the patient experience but is not the focus of this research paper.

The development of successful partnerships requires that an organization view its dealings with clients as a committed, long-term relationship, which cannot be secured only on the basis of superiority of the technical aspects of a service. For the purposes of this paper, we use the terms partnership, and cooperation somewhat synonymously in that we view each of them as denoting a more relationship marketing-like orientation towards interorganizational relations. Following Bull, we define partnership and cooperation to mean purchaser provider relationships based not on competition for short-term gains but on a long-term basis, which seeks to set and work towards common goals for mutual benefit [3]. Such relationships should be based on trust, on a clear recognition of needs and on a commitment to strive continually for higher standards of efficiency and service. Each of them embodies an interorganizational perspective based on the establishment and ongoing management of mutually-beneficial, long term relations that satisfy individual as well as shared organizational objectives [29][32][45], and in the case of the two major stakeholders under investigation, between the purchaser and provider of public healthcare services.

We begin by first reviewing elements of the stakeholder and relationship marketing literatures. We then describe the method of investigation, a single case-study approach, and compare and contrast the empirical findings from the field interviews with those findings already described in the stakeholder literature. From such comparisons, we identify and illustrate a number of factors that are important in the management of successful stakeholder relationships in a public healthcare setting. These factors are grouped into four major themes or 'core categories'. Finally, we present the theoretical and managerial implications of our findings for a future research agenda.

## **Background**

Interorganizational cooperation is now a way of working that is becoming more attractive to the public sector and public services. In the UK, public policy has decreed that those organizations involved in the supply chain of services must deliver “integrated care, based on partnership, rather than competition through a shared vision of those who both provide and purchase services [7]. This emphasis has taken interorganizational interaction in the supply chain beyond simple transactional exchange and into the realm of relational exchange, cooperation and partnership.

Crosby, Evans and Cowles demonstrate that opportunities in service partnerships depend mostly on trust and satisfaction, which comprise partnership quality [6]. There have been attempts to quantify the economic benefits of cooperation between purchasers and providers. For example Larson found that higher levels of cooperation between purchasers and providers led to lower total costs [26]. Additional benefits of positive partnerships include long-term loyalty and customer retention [21]. The received view has been that integration, through the consolidation of hospitals, support services, and health care professionals, can strengthen market position and lead to greater efficiencies [41][3]. Healthcare organizations typically face a diverse set of stakeholders with varied and frequently conflicting interests and goals. Healthcare managers face the challenge of greater accountability, to more stakeholders who are increasingly ardent in their requirement for information. Very few health care organizations have a clearly articulated and fully developed strategic approach to managing their key stakeholder relationships [2] and in the UK, strategic partnering and stakeholder management is not particularly evident. Having made reference to various stakeholders involved in healthcare service provision, we will now turn to the stakeholder literature.

Interorganizational arrangements are suggested as being vital to meeting public health goals, which necessitates actors involved in these arrangements having a stakeholder orientation [30]. All healthcare organizations have stakeholders. Stakeholder theory views cooperation as exemplifying the mutual acceptance among all stakeholders of each other's right to participate in the problem domain as well as the capacity to participate [14][15]. At the heart of stakeholder research is the basic premise that organizations have relationships with many constituent groups or "stakeholders" that have the ability to influence and that are themselves influenced by organizational decisions [25], citing [11], thus stakeholder theory attempts to classify these stakeholders into useful categories that help to explain how they influence firms' operations [39]. In addition, stakeholder theory is concerned with the nature of these relationships from both 'process' and 'outcomes' perspectives and assumes that the interests of all *legitimate* stakeholders have value [25].

Stakeholder theory also attempts to explain and predict organizational behaviour under stakeholder pressure [11][39], and can be positioned as a four step strategic planning process:

1. Identify all relevant stakeholder groups in relation to the issue being addressed;
2. Determine the stake and importance of each stakeholder group;
3. Determine how effectively the needs and expectations of each group are being met; and
4. Modify corporate policies and priorities to take into consideration those stakeholder interests not currently being met [11].

Polonsky, Suchard, and Scott have suggested an additional step whereby firms implement the planned strategy and make whatever adjustments are necessary if the desired outcomes are not being realized [31]. They argue that incorporating a stakeholder theoretical approach into modelling interorganizational marketing relationships makes strategies more realistic and better able to adapt and influence changes in the external marketing environment.

Freeman and Liedtka have refined this theory of management by describing four normative principles that can lead to success for a focal organization and its stakeholders [12]:

1. *Stakeholder cooperation* – in which value is created because stakeholders can jointly satisfy their wants/needs;
2. *Complexity* – in which the individuals belonging to various stakeholder groups are complex and act from different values, many of which are jointly determined and shared. This diversity in personal and professional values can lead to innovation (products and services) that benefit society;
3. *Continuous creation* – in which the institution is a source of value creation. Stakeholder cooperation while being motivated by values leads to new sources of benefit to stakeholders and allows for the emergence of creativity and innovation (see above);
4. *Emergent competition* – in which competition arises because stakeholders have options but this form of competition is based on the ability to manage the tension between simultaneous cooperation and competition amongst stakeholder groups.

We suggest that this stakeholder management model is applicable within the context of this research since the focal interorganizational relationship between service purchaser and service provider exists within a broader network of interorganizational stakeholder relationships. In addition, these findings support other published work that calls for more overt utilisation of stakeholder theoretical perspectives in managing stakeholders in the health sector [30].

## **Research Methodology**

### **The Case Site**

The data collection method utilized a single-case study approach using a subsidiary of a UK hospital (cardiac services). The researchers selected the research site because the hospital offered a number of interesting opportunities for study. A Trust was formed from the merger of two hospitals with very different cultures and management structures in the late 1990's, the aim being to develop a separate identity to promote the hospital as a 'centre of excellence' for the provision of cardiac services.. The purchasers had invested substantially in the creation of the new centre and wanted to see the hospital become the regional cardiac centre with centralized facilities

offering more extensive and accessible services for patients. With the additional resources provided by the merger, the purchasers foresaw that the increased capacity would attract more business from outlying areas.

#### **Research Method and Procedure**

We employed a qualitative interview approach for gathering and analysing major stakeholder (provider and purchaser) perceptions of their interorganizational relations and how these interactions impact on the quest of the healthcare provider to meet the needs of the community they serve. The interviews focused on the nature of their relations and how stakeholders in the supply chain can work together in delivering healthcare.

We began by collecting "grounded events" or actual incidents describing the operation and working of stakeholder relationships within the healthcare value chain [13]. These events or incidents were then analysed to reveal broader patterns. Our concerns, in examining the perceptions of stakeholder relationships, relate to the actors' construction of 'reality', and are 'interpretivist' in nature, our aim being to better describe, understand and explain the nature of the relations between the two major stakeholders. Others would recognize its contribution as being functionalist in nature in as much as its findings may suggest how practitioners may begin to ascertain how stakeholder relationships might be managed more effectively.

We promoted data reliability firstly, by using a case study protocol in which all the informants were subjected to the same sequence of entry and exit procedures and interview questions; secondly, by creating similarly organized case databases for each stakeholder. Construct validity was enhanced by using multiple sources of evidence and by establishing a chain of evidence as each interview was concluded. External validity was promoted by the research design itself, whereby all stakeholders belonged to the same industry. Finally, the authors addressed internal validity by the 'pattern matching' data analysis described by Yin [42].

#### **Data Collection**

In keeping with the chosen case-study method, multiple sources of data collection were used. Data was collected from hospital staff comprising the director, consultants (2), managers (4), technical staff (2), nursing staff (4) and healthcare purchasers representing local healthcare authorities (5). Each interview lasted between two and four hours and the interview results were then combined with other documentary evidence provided by the healthcare provider and purchaser to produce a detailed case study report on each stakeholder. A total of eighteen respondents were interviewed over a 3-month period - May-July 2001 (the full interview protocol is available from the authors). Immediately after the interviews, the researchers recorded and crosschecked facts, as well as their own personal perceptions and impressions. We followed a particular protocol for "within-case" analysis (Yin, 1984). The '24 hour rule' required that detailed interview notes and impressions were completed within one day of the interview. The interview results were then combined with other primary sources of documentary evidence provided by the stakeholders to produce a detailed case study report on each one. The reports were then returned to the interviewees to be checked for accuracy. When accuracy was confirmed, the case study evidence was deemed suitable for analysis.

#### **Content Analysis**

The analysis followed the sequence of steps described in Miles and Huberman [28, p. 10], who "define analysis as consisting of three concurrent flows of activity: data reduction, data display, and conclusion drawing/verification". Data reduction was undertaken for each of the 18 interviews; mainly using literature-based codes grounded in the relationship marketing and stakeholder relationships literatures. Codes were organized with the NUDIST software (version 4). The codes were arranged in the form of 18 within-case displays which took the form of a matrix or a network according to which was most appropriate to the interview being analysed [28]. The 18 displays were then integrated and synthesized into fewer cross-case displays capturing stakeholder experiences of strategic partnerships.

Each interview was taped and then transcribed in full. The analysis phase employed a three-step content analysis procedure [13][28]. In a first "unitising phase", the transcripts were broken down into "thought units" or first-order themes that ranged from a phrase to several sentences. Second, in the categorising phase, the thought units were organized into emergent categories or second-order themes. The assignment of labels to each category reflected attempts to capture the perceived communality or shared message amongst the thought units. An additional researcher was utilized to complete an independent content analysis and mediate disagreements. Independently derived findings were then compared and contrasted. Finally, in this classifying phase, the categories

emerged or metamorphosed into four final themes or 'core categories' that provide a summary of "what is going on" in the data [40].

## **Research Findings**

Analysis of the transcribed interviews yielded twenty-seven first-order themes, eleven second-order themes and four final themes. These themes represent provider and purchaser views on those factors characterising stakeholder relationships within the purchaser-provider dyad. Table I illustrates the themes derived from the three-step content analysis procedure. The reader is encouraged to use this table as a guide to the commentary that follows. Refer to Table I.

### **Theme 1: Relationship Dynamics**

Interviewees from the hospital and purchasing authority made statements regarding the relative strength of partners, the cooperation versus competition dilemma, and trust. We organized these second-order themes into the final theme "Relationship Dynamics". The hospital did not perceive losing the purchaser as a possibility. However, the majority of purchasers referred to a lack of confidence in the management of the hospital but recognized that they were more or less 'stuck' with it. They also expressed concern investing a considerable amount of money in the service and were now (two years on) still waiting for the hospital to show a return on that investment in terms of outcomes, volume of work and a drop in in-patient waiting lists. For example, one purchaser stated: "I think we look at them and say they're a disorganized crew, they need to get some of their internal act together first before there are opportunities for us to work closely together".

Perceptions of mistrust were also evident. For example, one purchaser stated: "There is a lot of work needed at the hospital to overcome a feeling of distrust and unhappiness about the way that the centre works. It's not about creating a centre of excellence it's about forging the link with the public". Theme 1 also incorporates the extent to which stakeholders perceive cooperation and competition. The director of the health centre stated: "The internal health market has gone somewhat . . . we don't compete anymore. We are working well as a partnership. We've now got to reinterpret the context and translate that into a meaningful feature for the heart centre". The director of the heart centre also stated: "The future has to be about a great deal of sign-up. Given that we have an epidemic of coronary heart disease and that it is a priority for the government, we've got to think hard about working with other people, partnerships outside the hospital, prevention, primary rehabilitation, secondary rehabilitation and pathways of care, that's the direction that we have to be moving forward".

### **Theme 2: People/Organizations**

The second-order themes that emerged from the case data included (see Table I): cultural fit and compatibility, managing personalities and open communication. We organized these categories into the final theme "People/Organizations". Both purchasers and providers identified the lack of a shared culture, where individuals are essentially doing as they pleased. One purchaser stated: "They are badly organized, poorly managed with no shared clinical culture. They make poor use of the best facilities in the UK which quite frankly is a scandal". The director of the heart unit stated: "Providing an excellent service must be built around clinical networks that operate in the interests of the patients who are sick and need the expertise of the specialist hospital". The centre's managers also identified culture compatibility. One manager stated: "There has not been a resolution about merging the two cultures and those cultures have not been overcome by a generation of people who feel like they are working as part of a team. They can't get the systems to work and provide information, they can't retain nurses".

Purchasers were very aware that individuals within the unit were working in ways that suited themselves rather than their colleagues. Both groups agreed that managing personalities, usually those of the consultants, was a problem. One of the heart centre managers noted: "Deflating some egos would be helpful along with building properly managed clinical networks across the wider community to ensure better flows of patients into the system and out again". One technical staff member stated: "They've got to get themselves organized and managed whereby the surgeon is not king, that the staff have confidence in the management structure to deliver".

Open communication was another problem for both groups. One purchaser stated: "We have little or no idea of how patients are selected for surgery. We have never been provided at the health authority with that

information. We try to find out how patients are referred in. There is a perception in this part of the world that our patients wait longer. So we don't feel that we are being dealt with fairly". Similarly, one of the unit's managers asserted: "We don't meet the needs of some of our stakeholders well enough or often enough. I don't think we're focused on standards sufficiently. We are not focussed enough on what it is those people who are supporting us as commissioners, purchasers, GP's, district cardiologists whoever (want). We are more focused on exploring the personal and professional interests of the people who work within the organization".

### **Theme 3: Propensity and Capacity to Cooperate**

Provider and purchaser respondents also identified both the willingness and the means to cooperate. This theme was characterized by three second-order themes (see Table I): first, compatible objectives; second, complementary skills and resources; third, a support climate for cooperation.

Both groups agreed that the resources are in place to make a dramatic difference to the treatment of coronary heart disease. But, what was holding them back was a lack of any organizational skills and a common culture moving the unit forward. Thus, there were problems with integrating different corporate cultures and creating an environment that would facilitate cooperation. Regarding the issue of resources, frustration was evident on both sides as one senior provider stated: "Why have we run for almost eighteen months with a brand new theatre that hasn't been utilized", while purchasers held the view that, "We see it as a centre with the physical resources but the inability to utilize those resources". One purchaser noted: "What they are looking for is a degree of stability in terms of commissioning the contract, which takes them a long way into the future that allows them to invest in services. But from our point of view we have been incredibly patient keeping the business there when everything tells us we ought to get out of this". Bridging the resource and systems issue, one purchaser commented: "You can't go shopping around, you have to have a system that is stable and provides continuity. But it does doesn't matter what we put in agreements, if they can't even provide the volume with all the resources that are available".

Compatible objectives, or lack thereof, were identified as being particularly problematic. Provider perspectives included one nurse noting: "Its got to look towards drawing different departments together, for example cardiac surgery works as cardiac surgery, cardiology works as cardiology. The holistic experience, the non-clinical aspects should be looked at as well, they make up the patient experience. Ultimately at the end of the day there's the patient sat in the bed and we are not looking at things holistically for that person sometimes". The issue of how to actually realize shared agendas was evident in comments made by one of the consultants: "Well my patients are on a waiting list and I want them off it. My agenda is to get more work done. The management's agenda is the same but how do we balance the books and get more work done when nobody's got anymore money and there are more people to be put through the system". The notion of problematic agendas was raised by one of the purchasers who complained that "The other agenda is pressure about artificially created targets, patients charter standards which they have to worry about. If it says thou shalt not have patients more than eighteen months on your waiting list they have somehow got to meet that target and they sometimes ask about ways that we can deal with that. Those sort of nagging issues only come along every now and then when the politicians decide to focus on one issue and then it sits in the headlines for a while and then it dies a death and nobody bothers".

The environment created by the existence or otherwise, of a support climate for cooperation, was also identified by purchasers and providers. As one manager noted: "There are a large number of individuals all working in isolation and they are not connected up which prevents the hospital from moving forward". This theme of stakeholders working in isolation is echoed in the perspective of one of the consultants who commented: "We want to do away with some of the barriers, how can you create excellence in a vacuum or in a desert. It should seek to influence and be influenced by its constituent parts. It's not in isolation". Somewhat more direct, one purchaser described the situation as: "I would describe the hospital as a failing dysfunctional organization. Each surgeon has a different system of managing and organising the patients". Additionally, one purchaser stated: "We don't actually know which groups of patients are given the preference regarding being put forward for surgery at the moment and we would like to know. I would like to commission for equality of access which then means you've got to have surgeons working as teams not as individuals".

### **Theme 4: Systems and Procedures**

Two second-order themes emerged from the case data to describe this final theme (see Table I): first, monitoring customer responses and second, the need to measure, monitor and review outcome measures. Hospital managers

were all too aware of the need to justify to their purchasers the cost and clinical benefit of the procedures that they perform. From the purchaser's point of view, it is not only the technical aspects of the service that are seen as important in evaluation. All of the purchasers agreed that they did not receive enough information about the service they were paying for. One purchaser stated: "I am led to understand their outcomes measures are up there with the best but I have never seen any evidence of this". This purchaser had invested a significant amount of money setting up the centre to be regarded as the primary centre for healthcare but they found themselves increasingly frustrated with the performance of the centre whom they regarded as complacent. One of the criticisms, which was voiced regularly by the purchaser, was the lack of information provided by the centre. They also believed that the outcome measures they used were limited and did not provide the variety of information needed to understand how well the centre was functioning. One purchaser commented: "They've got a clear outcome that they can measure 'death' because there are some specialities where people die, its not necessarily anybody's fault but they can measure it. This is absolutely scratching the surface in a very superficial way". Another purchaser stated: "They have not even thought about how they are going to measure outcomes in other areas where the outcome is not so clear cut, where there is a fair amount of greyness between a good outcome and a bad outcome. They have absolutely no idea how to do it. Measuring cardiac outcomes is the easiest possible specialism and they are finding out how difficult it is".

The management at the centre were also acutely aware that they were not satisfying the purchasers with respect to the type and amount of information they were providing. The director stated: "We don't meet the needs of some of our stakeholders well enough or often enough. I don't think we're focussed on standards sufficiently". Management were also aware that the communication problems were also causing difficulties amongst the staff themselves. Staff groups were identified who did not share information with their colleagues even detailed information such as their surgery selection process. One manager commented: "How do you measure the quality, the wisdom of a surgeon who decides he'll operate on one patient and not another?" Management also expressed the view that the lack of communication between staff groups was impeding their performance as a unit. The director stated: "In terms of these performance indicators that will be coming up, from our point of view we've got to pre-empt them by knowing what's happening everywhere else in the country. Are they undertaking best practice, whether it's length of stay or the treatment process?"

## **Discussion**

The final themes that emerged from this research include such interdependent factors as relationship dynamics, people and organizations, propensity and capacity to cooperate, and systems and procedures. Reference to Table I illustrates that many of the resulting themes identified by the major stakeholders interviewed in this research support the extant literature on relationship marketing. For example, Polonsky, Schuppisser, and Beldona cite a number of relational factors that can influence how stakeholder relationships evolve, including relationship orientation, trust, communication, learning, power, reciprocity and commitment [32]. These relational factors fall predominantly within the People/Organizations and Systems and Procedures themes where there is an emphasis on establishing, developing and maintaining successful relationship exchanges.

However, a number of our resulting themes are also evident in the stakeholder literature. The more obvious factors illustrated in Table I that have links to the stakeholder literature fall within the 'Relationship Dynamics' and 'Propensity/Capacity to Cooperate' final themes This encompasses such second-order themes as the perception of power in the relationship, the competition dilemma, and having complimentary skills and resources. We suggest that by framing these results using a stakeholder theoretical perspective, this presupposes the interdependence among the identified relational factors as opposed to seeing them solely as independent and dependent variables.

Our further analysis and synthesis of the findings contributed to the development of an illustrative framework (see Table II) for mapping the state of relationships using the final themes that emerged from our analysis plotted against a continuum of cooperation/partnership. Our illustrative framework draws on and brings together the views and perspectives of the major stakeholders involved in the provision and delivery of healthcare, and factors identified in the relationship marketing and stakeholder literatures. We suggest that this framework

enables the application of stakeholder theory to the analysis of interorganizational relations between purchaser and provider within a public healthcare context. Refer to Table II.

What becomes apparent from Table II is the appearance of the purchaser-provider stakeholder relationship dealing with the reality of transitioning from the competitive Conservative quasi-market to the New Labour cooperative approach to healthcare provision and delivery. It clearly demonstrates a marked difference between a 'propensity to cooperate' mindset and a 'capacity to cooperate' reality. We suggest that both provider and purchaser share a cooperative relationship mindset in that they understand that their own success is tied to the success of the other. They have common objectives in terms of relevant health outcomes and both parties are highly committed to the relationship. This interpretation is supported by the propensity/capacity to cooperate theme. However, our findings indicate that the purchaser-provider stakeholder relationship has elements of both cooperation and non-cooperation. Specifically, the remaining three final themes in Table II illustrate elements of both cooperative and non-cooperative orientations, suggesting a dichotomy between propensity and capacity to cooperate. These findings are not surprising given that many post-merger integration problems can be attributed to poor stakeholder management [23].

There are a number of implications of framing our research findings using this illustrative framework. We suggest that in this public healthcare setting, both purchasers and providers should carefully consider those organizational and management issues pertaining to the four themes that emerged from our analysis that are necessary to move stakeholder relationships from a non-cooperative orientation to one of cooperation. This could involve embracing the normative principles of stakeholder management suggested by Freeman and Liedtka [12]. A fundamental question for both stakeholders is to establish what measures in each stakeholder's context are necessary to facilitate changes in relationship orientation. The emergent themes provide some starting points for each purchaser/provider stakeholder to signal to the other that it seeks to improve the relationship. For example, recall that the provider stakeholder is comprised of a number of smaller stakeholder groups, thus achieving overall consensus (with respect to trust, communications, standards, information, etc.) amongst these internal stakeholders would signal to the purchaser stakeholder a desire to take the relationship to one that embodies both a capacity as well as a propensity to cooperate. As evidenced by the nature of relations among internal stakeholders within the provider side of the purchaser-provider dyad, a major implication of the findings is that healthy interorganizational relations depend upon good relations *within* each organization, thus successful interorganizational cooperation requires internal marketing and a receptive internal organizational culture [18][20][17][5][10].

## Conclusions

Our research explores the use of a more pronounced stakeholder theoretical perspective in analysing purchaser-provider relationships in a UK public healthcare context in an effort to assist stakeholders in managing cooperation and optimising a partnership mentality. Specifically, the case site investigation presented in this paper was carried out with the purpose of examining stakeholder relationships in a public healthcare setting. The emergent themes helping to describe perceptions of the various stakeholders are consistent with theoretical and empirical research cited in the wider stakeholder and relationship marketing literatures. Although the factors identified from the research were not validated quantitatively, we propose that they have face validity for managing and evaluating interorganizational relations. Quantified validation of these factors is suggested in future research.

We did not set out with a pre-determined construct of successful cooperation to test in this case study. Rather, from our findings, we looked for themes and presented an illustrative framework for mapping the state of stakeholder relationships. In the case of the UK, Government policy of 'joined up thinking' between providers and across purchasers and providers is intended to improve service encounter experience and efficiency of provision. We believe the stakeholder cooperation approach advocated in this paper can make a legitimate contribution to this improvement. Specifically, when evaluating interorganizational relationships, it is essential that managers in the supply chain of public healthcare purchasing and provision adopt a stakeholder approach in identifying and evaluating those factors that characterize the relationships that stakeholders have with each other. In addition, we suggest that the results of our analysis (illustrated in Table I) can be incorporated into a illustrative framework (see Table II) that

assists managers in identifying the current state of their stakeholder relations. This should encourage managers to then think strategically about how to maintain or enhance the nature of their interorganizational relationships i.e., remaining in a cooperative stakeholder relationship versus seeking to move the relationship from a non-cooperative orientation to one of cooperation. Although the US healthcare environment is much more competitive, and has a more pronounced for-profit, private sector involvement, recent studies have shown that where there is evidence of more cooperative interorganizational relations resulting in fully integrated delivery systems, positive outcomes are achieved in such areas as clinical quality, organizational survival and fulfilment of stakeholder needs [38].

The public sector is now characterized by cooperation and partnerships in the supply chain of public services. The policy and public pressures that have led to this have emphasized the need for public sector organizations to consider how they work together to form cooperative partnerships leading to more efficient services, which deliver enhanced user satisfaction. This research shows that both parties are very aware of this, though purchasers of healthcare have higher expectations and greater disappointment than their suppliers who are internally focused. They see this lack of focus arising out of their failure to fully understand and meet the needs of their stakeholders, confirming the need for the application of a framework that describes the organizational and management issues that influence the current and desired state of stakeholder relationships. In our research, these organizational and management issues were encapsulated by four emergent themes.

The case study method used in this study has limitations recognized by several of its proponents. As with any qualitative study, risk may be associated with recall bias and selective reporting [1], and the nature of data may lead to findings with limited validity, reliability or generalizability. However, authors such as Yin, Eisenhardt and Gummesson have long advocated theory building grounded in case study research [43][44][9][19]. Here, in order to enhance the reliability and generalizability of our findings specific to a public healthcare value chain setting; the two major stakeholders were selected and researched. Additionally, confirming the veracity and accuracy of the information and findings with interview subjects assessed data validity.

The use of retrospective accounts and perceptions of stakeholders can also present limitations. Although the use of recall and retrospective accounting was inevitable in some sense, it was nevertheless appropriate given the desire to explore the thoughts and thinking of different groups in the healthcare value chain. Such measures of perception are potentially subject to various forms of response bias, for example, the confirmation bias reported by Bazerman and others [1]. A suggestion as to how this might best be dealt with in future research would be to adopt more of a longitudinal perspective such that repeated access to key informants might be possible. In this way, earlier findings can be validated against subsequent findings through the ability to have key informants clarify, confirm or even disconfirm earlier data. In this manner, there is an additional measure of triangulation; not so much from multiple sources of data but through more long-term access to the source of data.

Future research should attempt to analyse more examples of this sort of interorganizational cooperation; either qualitatively through the accumulation and comparison of in-depth case studies, or through large-scale quantitative surveys whereby some of the themes and categories identified could be refined into more specific hypotheses that could be tested in an array of cooperative interorganizational relations scenarios. In addition, whereas we have suggested that the incorporation of a stakeholder approach to managing interorganizational relations is desirable, future research might attempt to actually guide the development of specific management strategies for achieving optimal interorganizational relations. Lastly, although patients are acknowledged to be stakeholders, future research might explicitly include their perspectives, since they will provide a very different stakeholder viewpoint.

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TABLE I: THEME ANALYSIS DERIVED FROM THE CASE SITE DATA

<u>Final Themes</u>	<u>Second-Order Themes</u>	<u>First order themes</u>
<b>Relationship Dynamics</b>	<ol style="list-style-type: none"> <li>1. Perception of Power in the relationship</li> <li>2. The Competition dilemma</li> <li>3. Trust</li> </ol>	<ul style="list-style-type: none"> <li>● Perception of secure contract</li> <li>● Mutual acknowledgment of 'lock-in' re: the relationship</li> <li>● Perceived lack of reciprocity</li> <li>● Demise of competitive marketplace</li> <li>● Perceived lack of trust</li> <li>● Lack of confidence in management structure</li> </ul>
<b>People/Organizations</b>	<ol style="list-style-type: none"> <li>4. Cultural Fit and Compatibility</li> <li>5. Managing Personalities</li> <li>6. Open Communication</li> </ol>	<ul style="list-style-type: none"> <li>● Lack of shared culture</li> <li>● Post-merger assimilation problems</li> <li>● Poor management</li> <li>● Utilization of resources</li> <li>● Lack of team dynamics</li> <li>● Information asymmetries</li> <li>● Personality conflicts among consultants</li> <li>● Little/no open communication</li> </ul>
<b>Propensity/Capacity to Cooperate</b>	<ol style="list-style-type: none"> <li>7. Compatible Objectives</li> <li>8. Complementary skills and resources</li> <li>9. Support Climate for Cooperation</li> </ol>	<ul style="list-style-type: none"> <li>● Shared purpose/aims?</li> <li>● Lack of organizational skills</li> <li>● Clinical networks across the wider community are not properly managed</li> <li>● Inability to use resources</li> <li>● Creation of artificial targets</li> <li>● Separate agendas</li> <li>● Stakeholders work in isolation</li> <li>● Emphasis on cooperation as stated in White paper</li> </ul>
<b>Systems and Procedures</b>	<ol style="list-style-type: none"> <li>10. Monitoring Customer Responses</li> <li>11. The need to measure, monitor and review</li> </ol>	<ul style="list-style-type: none"> <li>● Lack of information where services are failing</li> <li>● Availability of information on outcome measures poor</li> <li>● Focus on standards is insufficient</li> <li>● Monitoring customer responses</li> <li>● Opportunity cost analysis/different cost-benefit justification</li> <li>● Type and amount of information</li> </ul>

TABLE II: FRAMEWORK FOR MAPPING STAKEHOLDER RELATIONSHIPS USING THE FOUR EMERGENT THEMES



Relationship Dynamics	People/Organizations	Propensity/Capacity to Cooperate	Systems and Procedures
		<ul style="list-style-type: none"> <li>• Purchaser and Provider - overall shared objectives evident (healthcare outcomes)</li> <li>• Purchaser and Provider - resources and complimentary skills exist</li> <li>• Purchaser and Provider - mutual acknowledgement of supportive climate</li> <li>• Purchaser and Provider - emphasis on cooperation</li> </ul>	
<ul style="list-style-type: none"> <li>• Purchaser and Provider - Perception of a secure contract and high power</li> <li>• Purchaser and Provider - mistrust</li> </ul>	<ul style="list-style-type: none"> <li>• Purchaser and Provider - lack of shared culture</li> <li>• Purchaser and Provider - individualistic with many personality conflicts</li> <li>• Purchaser and Provider - little/no communication</li> <li>• Purchaser and Provider - little/no communication</li> </ul>	<ul style="list-style-type: none"> <li>• Purchaser and Provider - individualistic instrumental objectives</li> <li>• Purchaser – perceives provider working in isolation</li> </ul>	<ul style="list-style-type: none"> <li>• Purchaser and Provider – lack of information where services are failing</li> <li>• Provider – lack of information within the provider organization itself being shared</li> </ul>

# The Performance Effects of Bank Mergers: A Malaysian Case

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## Abstract

This paper investigates and compares pre and post-merger operating performance of acquiring banks of the recent banks mega mergers in Malaysia. Using a sample of 37 banks for period beginning 1988 through 2002, a period characterized by major changes in the banking sector. The merger exercises provide an opportunity to Malaysian banks to improve their efficiency and to enhance their competitiveness in view of ongoing financial liberalization. The findings reveal that bank characteristics such as bank growth and market growth are found to be significant and played a role in explaining the differences in pre- and post-merger performance. Capital asset is found to be significant in explaining the impact of the post-merger of the acquiring banks.

## Introduction

A variety of reasons have been advanced as to why banks merge. The rationales behind the increase in merger activities are being constantly analyzed to identify or provide answers to the frequently asked question about merger exercise: can merger affect bank post performance? Merger suggests a non-value-maximizing effort for the firms involved, although in most cases, mergers are justified on the basis that the new enlarged entity will be able to be more efficient in its use of resources, and thus operate at lower cost, or achieve greater revenue from cost base. In either case, the merged institutions should be able to increase returns to shareholders (Berger, Demsetz and Strahan, 1999).

Another important reason for the merger is the international consolidation trend in financial service issue. Since the mid- to late 1980s, many bank analysts as well as academic researchers have argued that bank mergers resulted in efficiency gains. The mergers also provide an important experiment in which to examine the public policy tradeoff between potential cost efficiency gains from consolidation and potential social efficiency losses from greater exercise of market power. On the other hand, some researchers have reservation on the findings on efficiency gains of merger exercises. A number of empirical studies show that there is no evidence of efficiency effect of horizontal mergers, and that such mergers did not, on average, yield efficiency gains. Empirical studies reported a disappointing operating performance results from merger activities in many industries (Rhodes, 1993)

A review of past literature indicates that there is no consensus for explaining the apparent popularity of mergers. However, conceptual theory and strategic management theories suggest that merger may improve the performance of the acquiring firm and merging should be to improve overall performance and to yield benefits in the form of increased efficiency (Lubatkin, 2001). To date, empirical studies have not supported the conclusions of the above suggestions. In the field of finance and banking, the studies generally find that mergers do not benefit the acquiring firm with a return greater than it would receive from other investment – production activities with similar level of risk. In spite of the mushrooming knowledge on the *causes* and *consequences* of bank mergers, particularly in the United States, few conclusions from this growing body of research seem “safe” today as contradictory and conflicting evidence continues to unfold along both the private and public dimensions of the bank merger process.

Results from well-documented empirical studies on mergers and acquisition of banking institutions suggest that only large and diversified banks can compete effectively and efficiently, not only in the domestic market, but more so in the international bank and capital market environment. As a result, the banking system has entered an era of restructuring and reorientation of activities in order to intensify competition among banking institutions and paved the way for the introduction of new financial instruments and practices.

Similar developments were also observed in the Malaysian banking system, as Malaysian banks had to adjust to the new conditions that resulted from gradual liberalization of the domestic financial market to increase

competitive environment in recent years. Merger in Malaysian banking sector has reached a record level since the government initiated liberalization in the banking sector in response to the 1997 Asian financial crisis, a period where a number of banks in the region had to close down. Rapid globalization has necessitated bank to merge in order to survive the onslaught of greater competition. The experience of United Kingdom, Australia and Singapore has proved that consolidation in the financial sector is both viable and desirable.

However, there are scant studies in the banking literature about the impact of bank operating performance on mergers in Malaysia firstly because of the country's small market and bank size and secondly because most merger studies, here and elsewhere, eliminate financial services and other regulated industries because of the impacts of changes in regulations.

In line with the limited studies carried out on Malaysian bank mergers and the ongoing debate on the effect of mergers on firm performance, our study is undertaken to fulfill three key objectives by providing empirical evidence on performance of Malaysian banks during the regulated period. The first objective is to investigate whether mergers generally improve the operating performance of acquiring banks. Relative indicators for acquiring and acquired banks will be compared to allow an assessment of the impact of merger on operating performance, and shed some light on the extent that operating performance influence mega-merger. The evidence on the effects of operating performance will be examined by measuring the overall bank profitability. The second objective is to investigate some of the possible factors that could influence performance of acquired banks. This study will present results of whether acquired firms are poor performers (due to bad management or other reasons that influence operating performance). The last objective is to investigate whether banks benefited from the so-called forced merger, by examining the differences of the performance of both (acquiring and acquired banks) during the pre-merger period.

## **Historical Background of the Merger Movement in the Malaysian Banking Industry**

The process of getting the banks to merge in Malaysia started in earnest in mid-1980s as a result of economic recession. The policy however, had always been to allow market forces to dictate the merger pace. The banking crisis in the mid-80's propelled a number of weak commercial banks and finance companies into insolvency and financial distress. These institutions were badly hit by the 1985-86 recession as they were saddled with huge levels of non-performing loans (NPLs). Given the severity of the losses, the Malaysian central bank (Bank Negara Malaysia) has advocated and recognized that a financial system with numerous small-sized banks are less efficient and unstable, and the banks must merge if they were to survive in the face of greater and stiffer competition. The issue becomes more urgent with the increasing pace of globalization and financial liberalization. With the need of countries to open up their financial markets to further entry of foreign banks, consolidation was inevitable for banks to be more competitive in the global market.

The need to merge was even more imperative in the face of the 1997 Asian Financial crisis where the viability of the financial sectors of the Southeast Asian countries was threatened. Malaysian regulatory authority responded proactively by embarking on a program of strengthening the banking sector. This consolidation was in line with the government's policy not to bail out weak banks but to rationalize business towards higher productivity.

Given the severity of the weak banks and the need to maintain integrity of public saving and the stability of the financial system, Bank Negara Malaysia had to implement a rescue scheme by initiating a merger program. The announcement on the merger exercise was called on 31<sup>st</sup> August 2000 and banks were required to complete their merger exercise by 31<sup>st</sup> December 2000. The whole consolidation exercise was to merge the perceived smaller financial institutions with the bigger ones (the "anchor" banks).

## **Research Design**

### **Methodology**

This study examines the operating performance of the acquiring commercial banks in Malaysia mega merger over the period 1988 – 2002. The analysis compares the performance profile of pre-merger to post-merger period.

Following the methodology in (Rhodes, Stephen 1986) acquiring and acquired banks were treated as a combined entity before merger. To measure the pre-merger performance, the study combines the ratio (accounting data) of acquiring and acquired banks to obtain pro forma performance for the merged firms. A comparison of the post-merger value with this pre-merger benchmark allowed us to measure the impact of the merger on the performance of the combined entity. T-test was employed on some key accounting profitability ratios. The profitability was measured as net income after taxes and securities gains and losses before extraordinary items as a percentage of total assets.

The sample consists of all 37 acquired and acquiring commercial banks. Data were extracted from financial statements of the sample banks obtained from the Bank Negara Malaysia (BNM), *Persatuan Bank Malaysia*, Association Bank Malaysia, the library of Universiti Utara Malaysia and the headquarters and branches of respective banks. The data covered a four year period prior to, and two years after the merger year (Healy et al., 1992) In this study the examination of financial profiles of the acquirer and acquired bank for two years after the merger would allow a time period that was sufficient for any potential economic gain to be realized. The sample periods were selected and focused on recent acquisitions so that there would be sufficient pre- and post- merger operating performance. In analyzing individual mergers, this study excluded the year in which the merger or acquisition occurred since the accounting data could often be unhelpful. For example, some mergers and acquisitions of banks occurred before the end of the relative financial year. As such data obtained include both the acquiring and target bank, while other mergers occurred after the financial year-end, with data available for the acquiring bank only.

In measuring the performance of the acquisitions, most of the studies on pre- and post-merger utilized industry performance indicators as the benchmark. Following Rhodes and Stephen (1990), observed post-merger differences in performance between non-acquired and acquired banks are used as benchmarks for comparison of efficiency. However, such performance indicators and benchmarks are not available in Malaysia, especially for all the mergers (considered mega mergers) taken as samples in this study.

Both profitability and operating cost ratios were computed for every bank up to four years prior and two year after the merger event. This study uses operating cost as the primary measure of performance efficiency (Rhodes, 1990) to indicate whether the acquired banks perform differently, in term of profitability and costs before they are acquired. Such difference would be apparent if, for example, acquiring firms generally sought out poorly managed firms to acquire. Presumably such firms would tend to have relatively low profit and high cost. In any case, these tests should indicate whether any observed post acquisition differences in profit and cost performance might be a result of the acquisitions rather than simply a reflection of long-run performance difference that existed before the acquisition.

## Results and Conclusion

In this section, we present the empirical test results based on two sets of profile. The comparison of the relative performance indicators for acquiring banks allows an assessment of the impact of the merger. The test of the hypothesis on merger involves the acquiring bank taking over an under-performing bank. The performance indicators consist of variables of bank profitability and operating cost. Using independent t-tests and multiple regression analysis, the tests are intended to determine whether acquiring financial institutions performed differently before and after merger:

$$P_i = f(S, MS, L/A, C/A, BG, MG)$$

Where

$P_i$	=	Performance measures
$P_1$	=	NI/TA = Net income/Total assets
$P_2$	=	OE/TA = Operating expenses/Total assets
S	=	Assets size of bank
MS	=	Bank's share of market deposits
L/A	=	Loan -asset ratio
C/A	=	Capital-asset ratio

BG = Growth of total bank deposits  
 MG = Growth of total market deposits

The specific measures of performance used to represent these factors are defined in Table 1. We examine these two indicators of bank performance in an attempt to identify specific areas within the merged banks where improvement occurs.

The measurement of profitability is return on assets (ROA). Profit variables are calculated both before and after taxes. Tax liabilities in banks can be influenced mainly by international activities and loan loss accounting, which may be unrelated to the merger. Due to the unavailability of market data, we used book values of assets.

TABLE 1: PERFORMANCE MEASUREMENT

Variables	Measurements
Profitability	Return on asset (ROA)
Efficiency (operating costs)	Total operating costs (excludes interest expenses) as a percentage of total assets
Firm size	Total assets during the study period
Market share	Percentage of total commercial bank deposits in a market held by a bank over the study period
Loan-asset ratio	Average of total loans as a percentage of total assets over the period study
Capital-asset ratio	Average total capital as a percentage of total assets over the period study
Bank growth	Annual percentage change in deposits over a period study
Market growth	Percentage change in commercial bank and finance companies deposits in the market during the period study

The analysis covers a period starting 1988 until 2002. For each of the years surrounding the merger, we calculate the mean value of different ratios for the banks involved. There are three profiles involved in the calculation. The first profile represents acquiring banks of which ratios prior-merger and to and post merger are calculated. The second profile established to investigate what factors influencing the acquisitions and thirdly profile of both the (acquiring and acquired) bank compares the value of the operating performance before acquisitions.

TABLE 2: DESCRIPTIVE STATISTICS

	Range	Mean	Std. Deviation	Variance
Roa	.0786	.005609	.0113323	.000
opcost	.0543	.024850	.0100185	.000
fsize	9.1169	23.630206	1.2553630	1.576
mktshare	.2447	.065759	.0615657	.004
loanaset	.3957	.613727	.0851571	.007
capasset	.1349	.049935	.0276032	.001
bankgrwt	2.0774	.231593	.3892845	.152
mktgrwth	1.7896	.131658	.3152482	.099
Valid N (listwise)				

Table 2 shows that the mean percentage for ROA is 0.01%, operating cost is 0.02%, firm size is 23.63%, market share is 0.07%, loan asset is 0.61%, capital asset is 0.05%, bank growth is 0.23% and for market growth is 0.13%. The mean for the eight variables range are from 0.005609 to 23.677705.

TABLE 3: CORRELATIONS

		roa	opecost	fsize	mktshare	loanaset	capasset	bankgrwt	mktgrwth
Roa	Pearson Correlation	1							
opecost	Pearson Correlation	-.794**	1						
fsize	Pearson Correlation	.097	-.103	1					
mktshare	Pearson Correlation	.110	-.085	.657**	1				
loanaset	Pearson Correlation	-.221	.308*	-.296*	-.160	1			
capasset	Pearson Correlation	-.015	-.002	.417**	-.379**	.057	1		
bankgrwt	Pearson Correlation	.040	-.281*	-.038	-.050	-.105	.091	1	
mktgrwth	Pearson Correlation	-.052	-.192	.036	-.017	-.099	.118	.955**	1

\*\* significant at the 0.01 level (2-tailed).

\* significant at the 0.05 level (2-tailed).

Table 3 shows that firm size, market share, loan assets, capital assets, bank growth and market growth have weak correlations with ROA. Loan asset has the highest correlation (-0.221), market share is the next largest (0.110) but the capital assets is the lowest correlation (-0.015). The firm size, market share and bank growth have positive relationship with ROA and this figure shows that one percent increase in firm size, market share and bank growth will increase ROA by 0.221, 0.015 and 0.052 percent. Instead, all independent variables have weak correlations with ROA. Loan assets has the highest correlation (0.308), bank growth is the next largest (-0.281) but the capital assets is the lowest correlation (-0.002). All these independent variables have negative relationship with operating cost except for loan asset. This figure shows that one percent increase in firm size, market share, capital assets, bank growth and market growth will decrease operating cost by 1.03%, 0.85%, 2%, 2.81% and 1.92%. However, the result is different for loan assets because this variable has positive with operating cost. The positive sign indicates that as loan asset increase one percent, operating costs tends to increase by 3.08%.

About 17% of the ROA variation in acquiring banks' performance is explained by firm size, market share, loan asset, capital asset, bank growth and market growth. This shows that the relationship between these variables and acquiring banks performance in Malaysia is weak. The operating costs result show that approximately 28% of the variation in operating cost is explained by firm size, market share, loan asset, capital asset, bank growth and also market growth. Therefore, the result indicates that the influence of independent variable on acquiring banks performance in Malaysia's is less rather than other factors.

TABLE 4: COEFFICIENTS

Model		Standardized Coefficients (Beta)	t	Sig.
1	(Constant)		-.482	.632
	fsize	.244	.596	.554
	mktshare	-.046	-.124	.902
	loanaset	-.165	-1.111	.272
	capasset	.128	.836	.407
	bankgrwt	1.233	2.430	.019**
	mktgrwth	-1.273	-2.480	.017**

**a** Dependent Variable: Return on asset

\*\* P < 0.05

The estimated model is:

$$\begin{aligned} \text{ROA performance} = & - 0.061 + 0.244 \text{ fsize} - 0.046 \text{ mktshare} \\ & - 0.165 \text{ loanaset} + 0.128 \text{ capasset} \\ & - + 1.233 \text{ bankgrwt} - 1.273 \text{ mktgrwth} \end{aligned}$$

Table 4 indicates that the significant value for all variables is greater than 0.05 except for bank growth and market growth. Therefore, there is no significant relationship between ROA and firm size, market n share, loan asset and capital assets. On the other hand, we can conclude that the relationship between ROA and these independent variables is statistically not significant. However, the result is different for bank growth and market growth because their significant value is less than 0.05. Therefore, we can conclude that a significant linear relationship exists between ROA and bank growth and market growth.

TABLE 5: COEFFICIENTS

Model		Standardized Coefficients (Beta)	t	Sig.
1	(Constant)		1.223	.227
	fsize	-.430	-1.129	.265
	mktshare	.211	.617	.540
	loanaset	.230	1.668	.102
	capasset	-.162	-1.139	.260
	bankgrwt	-1.423	-3.014	.004**
	mktgrwth	1.230	2.575	.013**

a Dependent Variable: Operating cost

\*\*P<0.05

The estimated model is:

$$\begin{aligned} \text{Operating cost performance} = & 0.142 - 0.430 \text{ fsize} + 0.211 \text{ mktshare} \\ & + 0.230 \text{ loanaset} - 0.162 \text{ capasset} \\ & - 1.423 \text{ bankgrwt} + 1.230 \text{ mktgrwth} \end{aligned}$$

Table 5 also similar with ROA coefficient result, which is the significant value for all variables are greater than 0.05, except for bank growth and market growth. Therefore, there is no significant relationship between operating cost and firm size, market share, loan asset and capital asset. However, the result is different for bank growth and market growth because their significant value is less than 0.05. Therefore, we can conclude that a significant linear relationship exists between ROA and bank growth and market growth.

TABLE 6: GROUP STATISTICS

	Mean before merger	Mean after merger	Std. Dev before merger	Std. Dev after merger	t-value	P-value
roa	.006097	.005350	.0109841	.0108550	0.495	0.521
opcost	.024608	.025066	.0098116	.0096189	-0.278	0.776
fsize	23.565265	23.832795	.8208855	1.6058994	-0.563	0.277
mktshare	.057998	.079606	.0570289	.0674764	-1.392	0.368
loanaset	.613493	.608863	.0871447	.0850016	-0.030	0.831
capasset	.050242	.051203	.0322233	.0219711	0.158	0.022
bankgrwt	.284147	.098082	.4481527	.2941268	1.456	0.085
mktgrwth	.137472	.124571	.3556242	.2163700	0.200	0.247

The acquiring financial institutions performance and efficiency after and before merger are shown in Table 6. According to the above result, the significant t-value for all variables are not significant ( $>0.05$ ) except for capital asset. Therefore, we can conclude that there is no significant difference in all variable measurement for acquiring financial institutions performance before and after merger except for capital asset. For capital asset, the significant value is less than 0.05. Thus, we conclude that there are significant differences in capital asset measurement for acquiring banks performance before and after merger. The finding is consistent with Rose (1987), which also found that profitability of acquiring firms does not improve after merger. Cornett and Tehranian (1992) also found the same result; which is no improvement in return on asset or cost efficiency (operating cost). However, Spong and Shoenhair (1992) found an evidence of an improvement in overhead cost efficiency (operating cost) as a result of merger but still no significant improvement in return on assets.

TABLE 7: T-TEST

Performance measure	Acquired means	Acquiring means	t-value	P-value
Roa	0.016923	0.007919	0.473	0.260
Opocost	0.026200	0.023466	1.034	0.136
Fsize	21.892091	23.719390	-8.141	0.002
mktshare	0.130838	0.066776	1.186	0.044
Loanaset	0.624659	0.596480	1.529	0.823
Capasset	0.054621	0.055321	-0.082	0.468
Bankgrwt	0.207433	0.318049	-1.252	0.006
Mktgrwth	0.035187	0.159688	-1.763	0.001

According to the Table 7, the P-value for ROA, operating cost, loan assets and capital assets are not significant ( $>0.05$ ). Therefore, we can conclude that there is not significant different in ROA, operating cost, loan assets and capital asset measurement between acquiring and acquired banks performance before merger. However, the P-value for firm size, market share, bank growth and market growth are significant ( $<0.05$ ). Therefore, we conclude that there is significant difference in firm size, market share, and bank growth and market growth measurement between acquiring and acquired banks performance before merger.

## Conclusion

This study is aims to investigate and compare pre-merger and post-merger operating performance of the acquiring banks of the banks merger in Malaysia. The study concluded that the ROA and operating cost performance do explain a weak correlation in the process of banks during pre and post-merger in the recent merger. Both ROA and operating cost are not significantly improved by the independent variables chosen except for bank growth and market growth does affect the performance of the bank merger. There is consistent with almost of the studies that find no gain in performance and also find no improvement in profitability. However, other studies show at least some indication of a performance improvement in some cases. In this study, the merger exercise is rather call forced merger due to the financial crisis rather than by the market competitiveness. Therefore, the results of the acquiring bank's performance were influenced by a condition of bank merger exercise and not due to bank choices and preference of the acquiring banks.

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SECTION 9  
TRENDS IN MANAGEMENT PRACTICES

2005

SECTION 2  
COUNTRY SPECIFIC STUDIES

2005

# A Strategic View of Responsiveness

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## Abstract

Nowadays market and customer demands and pressures have increased and the customer has become a core focus in manufacturing. Manufacturing competition has shifted from cost to quality to time and to ability to respond. Responsiveness is a new emerging competitive performance aiming at competitive advantage on time and ability to respond. The authors' previous work has clarified the meaning of this key performance. Responsiveness components have been identified as a means to develop appropriate responsiveness approach in industries at operational level – order fulfillment process. However with respect to the fieldwork from the authors' previous work (Kritchanchai and MacCarthy, 1999) [10], it is noticed that not every company is aiming at achieving responsiveness. Rather an appropriate level of responsiveness for their firm is what they are looking for. This has added a strategic view to the responsiveness concept. It is a performance that needs to be strategically managed. This also influences its approach at the operational level. In this paper, firstly, the previous work and responsiveness background are given. Then responsiveness is discussed with respect to other relevant paradigms e.g. time-based competition, agility and flexibility. Definition and framework are presented. Then a strategic view of responsiveness regarding how responsiveness is managed is investigated. This also includes its relationship with other existing strategic performance objectives – quality, speed, dependability, flexibility and cost. Their relationships should enable us to allocate the appropriate role of responsiveness with respect to the other desired performances in the same organisation. Furthermore, responsiveness analysis and auditing process in developing responsiveness approach and checking responsiveness aspects in a firm is presented. A company can then apply this process as a guideline in developing appropriate tactics to achieve this performance.

## Background on Responsiveness

Responsiveness has been mentioned in a number of literatures and research. Although it is referred to as a key competitive performance in this century, its meaning and application are still ambiguous. Stalk (1988) [13] views responsiveness as being the same as the cycle time in Toyota manufacturing. Stalk and Hout (1990) [12] also appreciate the advantage of responsiveness but suggest the practices for responsiveness aim only at time compression. Again Azzone and Masella (1991) [1] do not distinguish between time and responsiveness. They exploit both concepts together in the context. Bozarth and Chapman (1995) [4] refer that responsiveness and flexibility are the key performances in achieving time-based competition. Sin and Hoon (1998) [15] note that time-based competition can improve responsiveness in a firm but only the term 'quick/fast response' is used for representing responsiveness. Yousseff (1992) [23] emphasises that responsiveness is a capability to achieve speed in the agility concept. Willis (1998) [22] also recognises the importance of responsiveness as one of the keys to future survival in agile manufacturing and view responsiveness as ability to serve the customer, response time or service to customer. Zairi and Sinclair (1995) [24] discuss responsiveness together with flexibility but never clarify the terms.

It can be seen from the literature that in the time-based competition context, responsiveness is viewed only in the time dimension – response time. In the agility context, responsiveness can be viewed as one of the key performance objectives but the role has never been clarified. Furthermore responsiveness and flexibility have been discussed together and may seem synonymous. Against this ambiguous, the authors' previous work has attempted to clarify the meaning and identify responsiveness aspects. It is found that responsiveness cannot only be represented by time, agility or flexibility. More precised and comprehensive view was proposed.

Here we review the investigation of responsiveness in the previous work focusing on order fulfillment process. Literature, field and case studies were employed in investigating this subject. Firstly, literature related to responsiveness – time-based competition, business process re-engineering, flexibility, agility and quick response manufacturing- were surveyed and analysed. It is found four common themes of responsiveness. These are: the factors that drive a system to be responsive or responsiveness drivers – *stimuli*; the need to be aware of these drivers

and what is needed to respond – *awareness*; the ability to respond to different drivers – *capabilities*; the targets or objective of each firm in its environment – *goals*. These four themes provide a basis for understanding of responsiveness, emerging from the literature, and will be referred to as “the four responsiveness components”. However it was realized that a more understanding and a more practicable view are still needed. A view is needed that accords more with reality. Hence empirical study was considered as the next step. The four responsiveness components were then investigated in the real world by using field and case studies (Kritchanchai and MacCarthy, 1999) [10] and survey (Nantiwannakul, 1999)[12].

The empirical data has pointed out that responsiveness is viewed differently in different types of industry. The interpretation of the four responsiveness components is also different in different types of industries. Ultimately, the data enabled us to classify four different types of industry with respect to responsiveness. These are (Kritchanchai and MacCarthy, 1999) [10]:

- Class I: Off-the-shelf – typical consumer products industry,
- Class II: Safety stock – typical oil and gas industry,
- Class III: Assembler – typical automobile, textile, steel industry,
- Class IV: Customiser – typical specialized machinery industry.

Furthermore, the four responsiveness components can be explained more precisely as follows.

- Stimuli – responsiveness driver- refers to the factors, events and issues that have, or could have an impact on system activities and expected or desired goals.
- Awareness refers to a firm’s knowledge and recognition of stimuli that occur or may occur and the preparation and responses necessary to address them.
- Capabilities refer to the activities and processes that enable a company to respond appropriately to stimuli.
- Goals refer to targets or objectives of each firm in its environment. Responsiveness is goal driven. Not all firms will be driven to respond to every stimulus at a similar level and the same goal may not be appropriate in different environment.

A generic framework for responsiveness has been presented in the previous work. We view responsiveness in two levels – strategic and operation. In the strategic level, any firm’s goals are set by their nature of the firm and business environment. These two factors also influence directions and constraints for responsiveness. Each responsiveness component is bounded within this direction and constraint. Stimuli, awareness, capabilities and goals can be different if they are within different boundary. This strategic issue will be investigated in detail in the next section. Furthermore, according to this responsiveness understanding, a practical definition for responsiveness with particular reference to the order fulfillment process can be provided as follows.

**Responsiveness is the ability of a system to identify significant stimuli, to be aware of their impact and the need to provide appropriate capabilities to respond, and to deploy those capabilities effectively whilst achieving set business goals.**

Although responsiveness can be explained more precisely, it is realized that some overlaps and relationships still occur between responsiveness and other paradigms - time-based competition, agility or flexibility. Hence it is necessary to clarify the term with respect to these concepts. Here we review the role of responsiveness, based on responsiveness components, framework and definition with these relevant paradigms.

## **Responsiveness and the Relevant Paradigms**

### **Responsiveness and Time-based Competition**

It is noticed that most papers on time-based competition use time as the strategic parameter and discuss about responsiveness only in the time dimension. This includes response time, ability to meet demand quickly and ability to respond to change faster. However, beyond the issue of response time, the four responsiveness components have clarified the term, more than just response time or ability to do things quickly. Aiming at shortening response time in time-based competition environment alone cannot bring responsiveness. The route to responsiveness also includes the issue of identifying stimuli that might lengthen the response time, acknowledging the system to be aware and

provide appropriate capabilities to respond in shortening the response time, and setting the system goals in targeting the desired response time. The desired response time, offered by responsiveness, should also be considered in achieving time-based competition. Youssef (1992) [23] mentions that, although speed is desired in market competition, it needs to be planned carefully depending on the willingness of customer. Moreover Carter, Melnyk and Handfield (1995) [5] argue that time-based strategy is not only shortening response time, it needs to take into account those lead time areas which are most important to the customer.

The wider approach of responsiveness, beyond the narrow perspective of response time seen in time-based competition strategies can provide an operational structure for the time-based competition approach in identifying critical areas and implementing the appropriate techniques. As a result, time can be compressed appropriately in the most significant areas and time-based advantage is obtained. Hence, responsiveness can be viewed as a significant route to win over time-based competitors, if it is interpreted and utilised beyond the issue of response time.

#### **Responsiveness and Agility**

Agility has been an emerging concept over the last few years focusing on rapid response to changes in manufacturing environments. Moskal (1995) [11] describes that agile manufacturing is a producer's ability to thrive in a continually and unpredictably changing environment while operating profitably in competitive climate. Barclay, Poolton and Dann (1996) [3] gave a definition of agility as the ability of a company to effect changes in its systems, structure and organisation. The book by Kidd (1994) [9] on Agile Manufacturing stated that agile manufacturing is driven by:

- Driving force for change in manufacturing,
- Competitive advantage that develops the capability to rapidly respond to the demand for high quality, highly customised products,
- To achieve the agility that is required to respond to these driving forces and to develop the required capabilities.

Kidd (1994) [9] also state agile manufacturing enterprises will be capable of responding rapidly to changes in customer demand. They will be able to take advantage of the windows of opportunity that, from time to time, appear in the market place. Considering the core concepts of agile manufacturing that are shared across these authors, the driving forces and the targets in responsiveness and agility tend to be in the same direction. However it is realised that agile manufacturing presents a bigger and wider approach in an organisation. While responsiveness is to respond to something that occurs or might occur, agility also considers self-development of the opportunity to respond. Therefore in theory, responsive manufacturing is rapid in responding to stimuli that occur or might occur but agile manufacturing is also rapid in responding to not only stimuli but the opportunities.

However in practice, agility does not particularly take into account the stimuli that directly affect the firm. Unlike the responsiveness concept, the typical or particular stimuli for the company should be identified and highlighted since it is the major factor that drives a company to respond. Moreover the organisation preparation for responding to changes in agile manufacturing come from three resources (Kidd, 1994) [9]: innovation management structures and organisation, a skill base of knowledgeable and empowered people, and flexible and intelligent technologies. This can be noticed that in being agile, the core principles are presented but the required system capabilities are not specified. Suri (1998) [18] also supports this view that the agile concept is full of theory but lacks implementation. However, the concept of responsiveness is to apply appropriate ability to respond to the particular known stimuli and aims at achieving particular set goals. It requires to specify only the appropriate ability to respond.

In summary, it is shown that agile concept covers wider theoretical principles with higher level and longer term strategy which are set beyond the idea of responsiveness. However, it can be said that responsiveness can target agility and develop the concept of agility to become more practical.

#### **Responsiveness vs Flexibility**

Unlike responsiveness, flexibility has long been discussed in both research and industry. In time-based competition, since flexibility and responsiveness are discussed together, they both may seem synonymous in this context. Some papers have given similar definitions of flexibility and responsiveness. Barclay, Poolton and Dann (1996) [3] defined responsiveness, which at its core, is an ability to *react and respond* to events. Slack (1990) considered flexibility as the ability to *respond* to changes. Upton (1994) [21] gave a definition of flexibility as the ability to change or *react*. However it is noticed in the flexibility literature that there seems to be another system ability

hidden in the context, which covers a larger area and has more potential than flexibility. Slack (1990) [18] stated that flexibility itself cannot be sold directly and is desirable not as an end in itself but as a means to other ends. Slack and Correa (1996) [17] suggested that manufacturing systems can utilise flexibility as an adaptive response to unpredictable situations. Barclay, Poolton and Dann (1996) [3] mentioned that a company must have the ability to analyse the potential impact of changes on its internal systems and organisation. They implied that an important aspect of a company's responsiveness capability is the way in which it manages and accesses internal and external resources.

From these points of view, flexibility can be identified as the capability which must be utilised and managed in order to respond to appropriate situations. Responsiveness – the concept of identifying stimuli, being aware and providing appropriate capabilities in responding to particular stimuli in achieving the set goals – is then the system ability that can manage the system capabilities in responding in appropriate situations. Therefore it can be viewed that flexibility is a capability within the system and essentially an attribute inside a responsive system.

According to this view and the study of responsiveness in this research, three factors can distinguish between responsiveness and flexibility.

- Drivers: there is no driver for flexibility. It is the capability which the system should have internally. Responsiveness on the other hand is driven by stimuli or potential stimuli. When stimuli occur or might occur, the system must be driven to be responsive to the stimuli.
- Assessment: the assessment of flexibility covers the system ability while responsiveness assessment must take into account the goal achievement.
- Action: responsiveness is the ability to take action to stimuli whereas flexibility is a capability inside the system.

Responsiveness also means to be aware of where and when flexibility is needed in manufacturing. Awareness is an important component of responsiveness and should be developed in order not to simply be flexible without concern for monitoring system stimuli and system goals. In short, being responsive does not mean that flexibility is a must. It needs to be considered and utilised appropriately as a *means to* responsiveness.

## **Responsiveness Strategy**

In this section, a strategic view of responsiveness is discussed. It is not to argue the business and manufacturing strategy theories that exist. Nevertheless this view is to extend the understanding of responsiveness at operational level to strategic level. In fact, responsiveness application at operational level is influenced by the strategic decision. Hence, in this section, we investigated responsiveness at strategic level along with the strategy literature, based on some of the empirical results in the previous work.

From the empirical data, it is found that companies do not desire to create responsiveness in every direction. If they decide to create responsiveness in a particular direction, they also consider appropriate degree of effort that they should put in creating responsiveness. This emerges two strategic decision questions for responsiveness. These are – are we going to respond?, if so, at what level should we respond?. We refer to these two issues as 'Responsiveness direction' and 'Level of responsiveness'.

Noticeably, these two strategic decisions are influenced from two factors at the strategic level – Nature of the firm and business environment (Kritchanchai and MacCarthy, 1999) [10]. As seen in the framework, these two factors influence responsiveness at operational level by identifying the boundary, directions and constraints for responsiveness. Here we investigate what do nature of the firm and business environment refer to? And how they influence responsiveness direction and level of responsiveness respectively?

### **Responsiveness Direction**

Responsiveness direction refers to the domain or the boundary that companies choose to create responsiveness in. As mentioned, companies do not create responsiveness in every direction. The nature of the firm identifies the boundary which also sets constraints for responsiveness components. Different nature of the firm leads to different boundaries and responsiveness components as illustrated in the empirical evidence following.

It can be seen that different industries bound their responsiveness in different directions. In oil and gas companies, responsiveness tends to be directed and framed by their product market. They tend to respond to only standardised product market. They tend not to respond to other directions such as customer variety requirements or new product introductions. Unlike the consumer product companies, they tend to respond to more customer variety requirements. Their boundary of responsiveness tends to be in higher customized product market. However they still refuse to respond to customer specific needs on product specifications. On the other hand, the machinery companies tend to respond in different directions. Changes in product produced or customer specific needs are allowed in their boundary.

From these evidence, it shows that type of industry is one of the factors that influence the direction of responsiveness at operational level. It is also noticed that one of the primary concerns of industry is their market served. This supports a strategic view by Hill (1995) [8] which highlights the importance of the link between functional strategies and the markets the business serves or intends to serve. He also states that market and manufacturing must have a common understanding and agreement about company markets. Only then can the degree of fit between the proposed marketing strategy and manufacturing's ability to support it be known at the business level and objectively resolved within corporate perspectives and constraints. Slack (1991) [15] also convinces that it is market and customers who totally define what manufacturing should consider important. Their needs should be manufacturing's needs, their concerns should be manufacturing's concerns. Furthermore, Smith (1985) [20] believes that the type of industry determines the nature of the strategic problems facing a particular enterprise. He states that the type of industry refers to the type of product produced and the type of market served. He views that the type of market served can be classified as:

- Commodity market for standard products, which tend to be simple and product life cycle is usually long.
- Differentiated market for variety products. The industry tends to have different and distinguishable characteristics from their competitors. Decisions about product design and markets become an important element in strategy.
- Monopoly market, where the product in this market is provided by a few producers. The products are quite unique and mostly compete on price and reliability.

These market characteristics are also reflected in our evidence. For instance, the consumer product companies which produce standard products tend to serve the commodity market. The machinery companies which offer customers the variety product tend to have the differentiated market. The oil and gas companies which have quite unique product tend to be in the monopoly market. Thus it can be seen that companies in different types of market served tend to have different responsiveness directions at the operational level. It can be said that nature of the firm in terms of type of market served influences the first responsiveness strategic decision – are we going to respond? This means that firms tend to create or improve responsiveness within the boundary of market served. They can refuse to respond to stimuli beyond the boundary. Only the stimuli, awareness, capabilities and goals within this boundary are considered. However, after responsiveness direction is defined, the appropriate area for creating responsiveness is constrained, the next question is – what appropriate level of responsiveness is required?

#### **Level of Responsiveness**

Level of responsiveness refers to the appropriate degree of effort that companies put in creating responsiveness within that boundary. Here we analyse how business environment affects level of response in a firm. In the field and case studies, we can see that companies do not respond to stimuli at the same level. A machinery company, which supposes to produce product as customer specifies, might not respond to every customised order. They may offer customers the product specification limited options from their range. In a garment industry, changes in product design is common, however, the company might not respond to every change customer requires. The product modification is allowed at a certain level. The company might refuse or the cost of change can be placed to customer. A machine part manufacturer tends to adjust production plan by also considering the rush order from the most important customer. They do not apply the same level of response to every rush orders.

Ball and Lorange (1979) [2] studied business strategy under the topic 'Managing your strategic responsiveness to the environment'. They recommend two key environmental factors that usually affect a division's plan –competitive strength and business attractiveness. Competitive strength refers to the potential of a firm in the market. This is not only represented by a company's competitive position of market share, but also of product

quality, distribution arrangements, plant capacity and ability to develop new products (Smith, 1985) [20]. Business attractiveness can be viewed as growth rate of sales of product, the future profitability of the sector, the financial results of companies in this field, etc. These two key factors are also reflected in the responsiveness case studies. Those competitive strengths affect the impact of stimuli. For instance, companies with adequate plant capacity are able to respond to volume fluctuation demand better than those with less capacity plant. The stimulus has less impact on the former than the latter. Thus, level of response and the degree of effort in responding to this stimulus in these two companies are provided differently. Furthermore, it can be seen in the case studies that rush orders by different customers are treated differently. This supports a view by Daugherty and Pittman (1995) [6] that a company cannot respond to special requests indiscriminately. Instead they prioritise such requests and develop tiered or differentiated service programs to ensure that preferred customers receive premier service. This confirms the fact that the preferred market influences the level of response in a firm and this preferred market can represent the attractiveness of a business.

After knowing that these two factors – competitive strength and business attractiveness – influence level of response, then, how these factors affect the level of response should be analysed. If the first part of responsiveness strategy is to set the constraint for responsiveness direction by the market served, the second part is to set the operational goal for level of response by business environment. Slack (1991) [16] states that one should consider customers and competitors for setting manufacturing objectives. Two manufacturing objectives are mentioned. These are order-winning objectives and qualifying objectives. He refers to the order-winning objectives as those which directly and significantly contribute to winning business. Raising performance in an order-winning objective will either result in more business or improve the chances of gaining more business. On the other hand, he refers to the qualifying objectives as those aspects of competitiveness where the operations performance has to be above a particular level even to be considered by the customer. Any further improvement in qualifying factors above the qualifying level is unlikely to gain much competitive benefit. Hill (1995) [8] distinguishes these two objectives by stating that “to provide qualifiers, companies need only to be as good as competitors, to provide order-winners, they need to be better than competitors”. In responsiveness perspective, it is viewed that business environment – competitive strength and business attractiveness- influences the decision in being order-winners or order qualifiers and guide appropriate level of response in achieving these set goals. According to this view and the field and case studies, the level of response with respect to the manufacturing objectives (the set goals) and business environment can be summarised in the matrix in fig. 1 as follows:

A – when the company has a strong competitive advantage, stimuli may have lower impact on the firm and when business attractiveness is high, the objective might be driven to order-winners. Although the company may not need so much effort in responding to stimuli, the level of response should be adequately high for ensuring profitability in the business.

B - when the company is quite weak in its competitive position, stimuli may have high impact on the firm and business attractiveness is high, the company may set the objective as qualifiers and may need to put high effort on improving their performance in responding to stimuli and gaining profitability.

C - when the company has a strong competitive advantage, stimuli may have lower impact on the firm but business attractiveness is low, the company may set the objective as order-winners but need to analyse the return on response and make a decision as to which degree of effort should be created for responding in this case.

D - when the company is quite weak in its competitive position, stimuli may have a high impact on the firm and when business attractiveness is low, the company may set the objective as qualifiers and may need to respond just to maintain its status in the market or business.

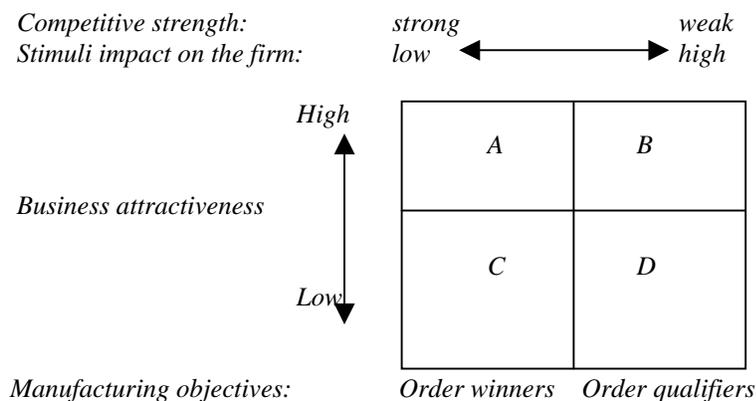


FIG. 1: LEVEL OF STRATEGIC RESPONSE MATRIX

### Responsiveness and the Strategic Performance Objectives

Performance objectives are the key factors in manufacturing strategy which are used as the weapon in business competition. Therefore, to have responsiveness in a firm, it is necessary to analyse the relationship, effect, impacts of responsiveness on other performance objectives. The existing set of performance objectives, used as the reference here, were proposed by Slack (1991) [16] – quality, speed, dependability, flexibility and cost. Based on the responsiveness view in this study, the relationships are analysed as follows.

#### Quality

From Slack’s point of view, in which quality is regarded as ‘to do the right things’, defined by the need of customers, responsiveness can be viewed as a supporter of quality. To be aware of the appropriate response capability enables us to assist the ability to do the right things. From another view in which quality is regarded as ‘doing things right’, quality can be considered as a factor to support responsiveness in terms of quality performance (conformance to specification). When everyone or every section does things right, this supports response capabilities in conducting any activities responding to stimuli.

#### Speed, Dependability, Flexibility

Similar to the relationships between flexibility and responsiveness discussed previously, it is viewed that speed and dependability are the capabilities in responsive manufacturing. The external effects of speed, dependability and flexibility are short delivery lead times, dependable delivery and wide product ranges respectively. With respect to this study, these effects can be viewed as the goals in responsive manufacturing depending upon different situations. On the other hand the internal effects of these three performances include fast throughput, reliable and stable operation and ability to change respectively. Again these effects can also be viewed as the capabilities that may be required in responding to stimuli in responsive manufacturing.

Therefore it can be seen that in responsive manufacturing, these three performances play an important role in tackling the stimuli and can be set as a means to achieve the goals. Willis (1998) [22] also supports this view that speed and flexibility are required in the production processes, product development and supply network activities. In turn, the capabilities in these integrative functions can support activities of customer orders and delivery process and lead to responsiveness. However being responsive is beyond these performances’ effects. Stimuli and awareness need to be identified and developed in order to utilise appropriate capabilities – how fast the throughput should be, where and how to create reliability and stability in operations and how much ability to change the system should have. When responsiveness is created in a firm, it must include the management and appropriate utilisation of the objective provided by these performances.

#### Cost

Price and cost are the most familiar competitive weapons (Hayes and Wheelwright, 1984) [7]. Although it is realised that being responsive may be costly, lower prices to customer may be possible. In responding to volume fluctuations

in demand, costs could be incurred from changing labour force levels or keeping high inventories. In responding to variety fluctuations in demand, cost could be incurred from keeping standard component inventory, customised processes or adapting standard components and holding excess machine capacity. However faster response, more accurate response, more reliable response, etc. may bring customer satisfaction. In turn high profitability and lower prices to customer may be obtained, although cost of production may not reduce. Responsiveness, as a result, can indirectly lead to cost performance improvement. Nevertheless, under this relationship, further in-depth analysis is still needed.

### Responsiveness Analysing and Auditing Process

After a company has identified and allocated their strategic direction and position for responsiveness, a number of aspects in developing appropriate tactics for achieving desired responsiveness at operational level are to consider. Based on four responsiveness components and the strategic factors, here, we present responsiveness analysing and auditing process. Fig. 2 shows the responsiveness analysing and auditing process. Strategic level

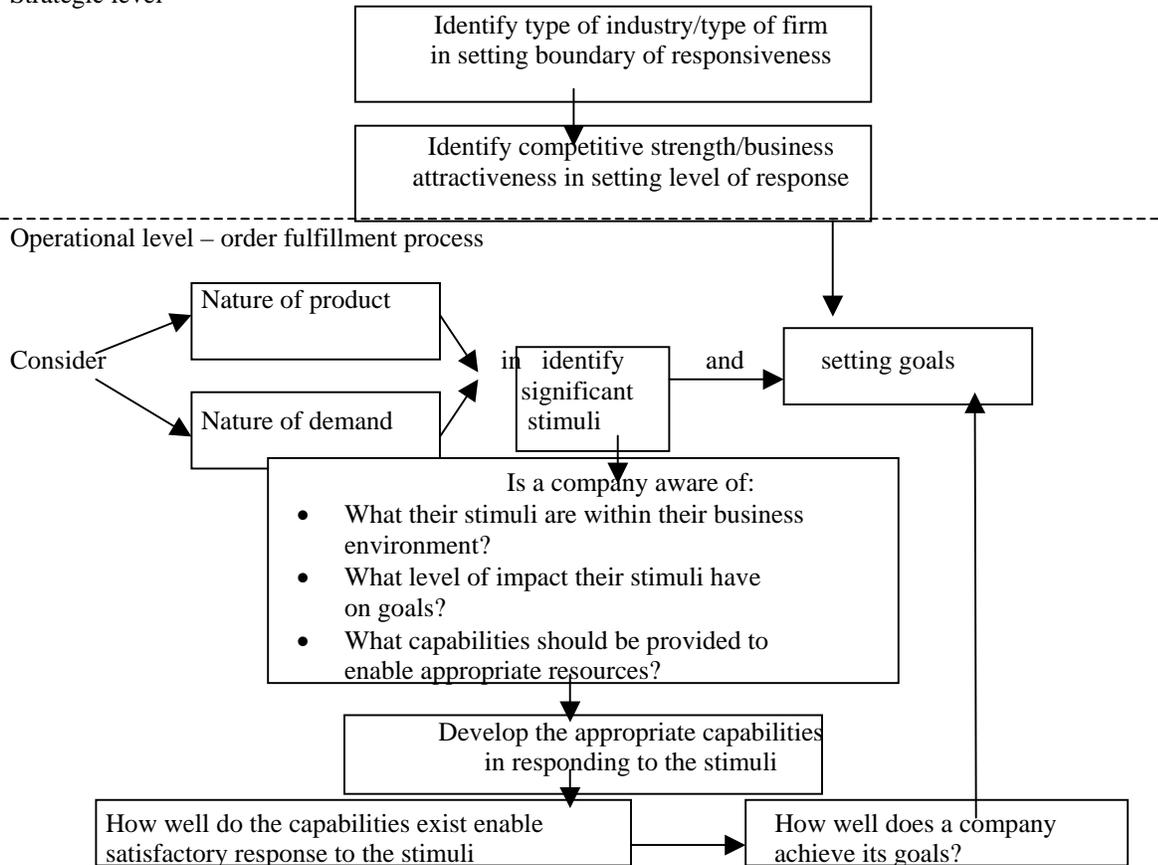


FIG. 2: RESPONSIVENESS ANALYSING AND AUDITING PROCESS

From Fig. 2, after identifying all responsiveness direction and constraint strategically, a company should consider their nature of product and nature of demand in identifying the significant stimuli and setting goals which are also determined strategically. Apart from the stimuli within their business environment, the company must also

check if they are aware of level of impact their stimuli have on goals and the capability that should be provided to enable appropriate responses. In other words, awareness in a firm can be assessed through the capability that they provided or intend to develop, reflecting recognition of the impact of particular stimuli. Then the company should develop the appropriate capability in responding to the stimuli. After that two questions are raised in the auditing process –how well do the capabilities exist enable satisfactory response to the stimuli, and how well does a company achieve its goals set earlier?

The important aspects in this process that one should take into account in achieving responsiveness are:

- Company's strategic direction which was described earlier
- Nature of product and nature of customer demand

Nature of product refers to volume, variety and degree of standardisation or customisation of the company's product. Nature of customer demand refers to the nature of variation of customer demand which can be volume fluctuation, variety fluctuation or customised demand, forecast reliably demand, non-repeatable demand, etc. These factors enable us to derive and identify the system's stimuli. For instances, customised specification product with non repeatable demand may lead to fluctuation of raw material requirement and workload on machine. This leads to difficulty in resources planning. Hence resource (material and machine) availability can be one of the stimuli that drive the system to respond.

- Four components of responsiveness analysis

This is to analyze what the company's stimuli and goals are, and assess the awareness and capabilities that they have or should have.

- Goal achievement assessment.

## Conclusion

This paper is based on the findings in the previous research which shows that companies are not to respond to every stimuli. The paper investigated how the companies strategically manage to create responsiveness. Responsiveness strategic decisions were raised. These are Responsiveness direction and Level of responsiveness. It is found from the evidence that responsiveness direction is defined by nature of the firm. This refers to type of industry and type of market served. The appropriate level of response is influenced by business environment which refers to competitive strength and business attractiveness. It is also found that responsiveness goals at operational level is related to the existing manufacturing objectives – order winners and qualifiers. This affects the level of response. In fact, from the overall strategic view of responsiveness, it can be seen that responsiveness at the strategic level is influenced and directed by business and manufacturing strategy. It is a performance which is still under the firm's strategy and policy. However at the operational level, responsiveness is quite a unique performance which develops its own response mechanisms. This is by identifying stimuli, being aware of stimuli, developing capabilities in order to achieve set goals. Furthermore, in giving a clear view of strategic and operational responsiveness, the paper also presented responsiveness analysing and auditing process. The process identifies the key aspects that a firm should take into account in considering responsive. It is hopeful that the process should enable a firm to create or improve their responsiveness with respect to their strategic policy.

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# Analytical Modeling and Analysis of Workload Allocation in a Business Process

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## Abstract

Redesign of business processes is currently attracting a lot of interest. Although many tools and technique have been used to model such processes, less attention is given to the analytical aspect to support or optimize the redesign process. In other application areas in where a network of server systems are concerned such as computer and communication systems, telecommunication systems and manufacturing systems, many analytical techniques have been developed to analyze the temporal aspect of the systems. The similarities exist between these kinds of system and business processes. In this paper, an analytic approach is presented that considers the performance of business process designs.

## Introduction

Recently business process redesigns have been given a lot of attention. Since then many modeling techniques and tools have been used to support the redesign process. However most of the currently available tools use static model such as diagram to model process. Some are quite dynamic where the functional aspects of the process have been modeled using simulation. However hardly any studies are found in the literature that used analytical model to study the quantitative behavior and optimization of business process.

Generally for business processes, the cost of the process depends on its time behavior. Customer satisfactions also often depend on time-based performance measure such as response time or turnaround time. For these reason, it is important to optimize the quantitative performance of business process. An important advantage of analytical modeling is that they allow for the off-line analysis of the effect of process redesign, without disturbing actual processes. To obtain the effective design model, feedback to the designer concerning process functional and alternative design option should be done at early process design. At this stage, analytical modeling provide quantitative properties, whereby these will provide the global indication of the expected performance. In the final stage, more accurate predictions may be required to fine-tune the design. Therefore, the analytical modeling proposed here is at the highest abstraction level of process design, i.e. to get the first idea on how the process should behave.

In this paper, we stress on the quantitative measures of business processes to those of concurrent discrete-event system. Based on this, we show that by using quantitative modeling, arrival to resource center can be reallocated to get the optimal performance measure. We focus on the issue of job allocation in a network of service centers where different service center has different job processing time. The optimization criterion studied here is to minimize the expected job response time in the systems to which jobs are allocated. Jobs arrive at a scheduler that allocate jobs to the service center according to a calculated arrival rate computed using Lagrange multiplier theorem. The paper is organized as follows. Next section shows the related work in this area followed by the proposed queueing and optimization model. Later numerical results and models verification are presented. Finally concluding remarks and directions for further research are described.

## Related Work

The problem of workload allocation is common to a variety of business system especially when it involves a network of service centers. Workload allocation seeks o allocate job arrival among service centers as evenly as possible. In a parallel setting, and particularly for multi service center systems where jobs may have many possible path at the job's scheduler, jobs allocation problem is of interest, each job entering the scheduler , a path is assigned to optimize the allocation of workload [25, 26, 28]. The workload allocation problem is of

particular interest for networks of service centers, since there are several ways to affect the distribution of workload among the centers[12].

Queueing network models have been recognized as powerful tools for evaluating performance of computer systems [1, 7] and communication network [2, 8, 9, 13, 27]. This analytical model has become a very important tool for predicting the behaviour of new designs or proposed changes to existing systems [10, 11, 17, 19, 22, 29]. Most queueing network models are used either by making assumptions to assure exact numerical solution or by employing approximate method [5, 9, 14]. [21, 23, 24], considered the control of arrivals to a network of queues with the objective of maximizing throughput subject to a response time constraint. He developed a throughput time delay function based on an optimality criterion where the arrival that maximize the throughput under the constraint of the average response time will not exceed a preassigned value. Then [19] continued with the problem of random routing. All these literature have been devoted to the probabilistic analysis of queueing system, their optimization is somewhat lagging behind. Network of queues in parallel are a natural way to model problems of resource and traffic allocation and many optimization problems based on them have been studied for instance in [3, 4, 6, 13, 15, 28, 15]. Most of the studies focus on reducing the amount of waiting time in a system with several servers either parallel or serial. However none of the studies consider the impact of jobs inter arrival and service time variation in modeling the systems performance. Although analytical workload allocation models are widely applied in area of computer and communication network, they are also applicable in the case of business processes especially by the increasing application of workflow management systems.

### Queueing System Model

When several users request for job (e.g customer request for product or service) at the same time, competition for the use of a common resource and the limited capacity of the resource can give rise to congestion, hence queueing is a common phenomena. Queueing occurs normally when the demand exceeds the service capacity of the resource and even when the otherwise occur. This is due to the fact that the inter arrival times of the request, and their required service times, are generally not fixed, therefore a mathematical model of congestion represents inter arrival and service times of users by random variables. Queueing Theory is devoted to the description, analysis and optimization of such queueing system [3]. It focus on a few key performance measures, like queue lengths and waiting times. Due to the stochastic nature of the arrival and service processes, and of the allocation process of jobs through a network of queues, the main performance measures are also random variables. With this in mind, we use multiple queue multiple server model to represent a central job allocation system and is shown in Fig. 1.

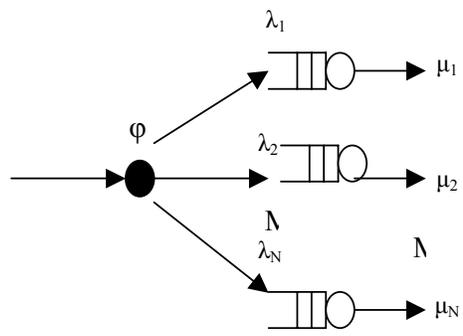


FIG. 1: MULTIPLE QUEUE MULTIPLE SERVER MODEL

In using this model, resources that provide services are represented by service centers at which jobs queue and compete for service. The workload is modeled as a single stream of job. A common example of workload is order request. Total workload rate arrived is given by  $\phi$ . Each newly arrived job, it is assigned to a node or server  $i$  with rate  $\lambda_i$ , according to the scheduling policy used. We consider the set of service centers to be heterogeneous which is common cases in real systems and also it can be generalized to homogeneous servers. In

the context of general queueing network models, the generalized exponential (*GE*) distributional model of the form [18] and [19].

$$f_s(t) = \left[ \frac{C^2 - 1}{C^2 + 1} \right] u_0(t) + \frac{4\mu}{(C^2 + 1)^2} \exp\left[ \frac{-2\mu t}{C^2 + 1} \right], \quad t \geq 0$$

Where  $\mu$  is the mean service rate,  $C$  is the coefficient of variation and  $u_0(t)$  is the unit impulse function, has been used to represent the inter arrival and service time distribution. This model is robust and versatile due to its memoryless properties and has been shown to maximize the entropy function subject to mean value constraints. Furthermore it can be shown [16, 20] the exact mean number of jobs in the GE/GE/1 queue is given by

$$L = \frac{\rho}{2} \left( 1 + \frac{C_a^2 + \rho C_s^2}{1 - \rho} \right), \quad \text{for } \frac{1 - C_a^2}{1 - C_s^2} \leq \rho < 1$$

Where  $C_a^2, C_s^2$  are the squared coefficients of variation of the inter arrival and service time distributions respectively. This mean number of jobs function will be used as the objective function in the optimization method.

### Optimization Model Using Generalized Exponential (*GE*) Distribution

In this section, the use of Lagrange method to *GE* type distributional model is proposed. In this case an optimization problem of queueing system can be generalized to a number of arrival and service distribution by configuring the value of coefficient of variation for inter arrival and service time. We formulated an optimization problem of  $N$ -GE/GE/1 queueing system as below;

P1 Min

$$\sum_{i=1}^N L_i = \sum_{i=1}^N D_i \left( \frac{\lambda_i \beta_i}{1 - \lambda_i \beta_i} \right) \left( \lambda_i \beta_i \left( \frac{C_{si}^2 - 1}{2} \right) + \frac{C_{ai}^2 + 1}{2} \right) \quad (1)$$

$$\text{s.t } \sum_{i=1}^N \lambda_i = \phi \quad (2)$$

$$0 \leq \lambda_i \leq \frac{1}{\beta_i}, \quad i = 1, K, N. \quad (3)$$

$$\lambda_i \geq 0 \quad (4)$$

$$\beta_i \geq 0 \quad (5)$$

where  $\rho_i = \frac{\lambda_i}{\mu_i}$  and  $\beta_i = \frac{1}{\mu_i}$

Problem P1 allows an analytical solution. Using Lagrange multiplier theorem we obtain with  $\delta$  the Lagrange multiplier, the following first order Kuhn-Tucker constraints:

$$\frac{d}{d\lambda_i} \left\{ D_i \left( \frac{\lambda_i \beta_i}{1 - \lambda_i \beta_i} \right) \left( \lambda_i \beta_i \left( \frac{C_{si}^2 - 1}{2} \right) + \frac{C_{ai}^2 + 1}{2} \right) \right\} = \delta \quad i = 1, K, N. \quad (6)$$

$$\sum_{i=1}^N \lambda_i - \phi = 0 \quad (7)$$

$$\text{From (6) and (7) we find the unique optimal values } \lambda_i^* = \frac{1}{\beta_i} \left( 1 - \left( \frac{C_{si}^2 + C_{ai}^2}{C_{si}^2 - 1 + 2\mu\delta} \right)^{1/2} \right) \quad (8)$$

and Lagrange multiplier is derived by solving the constraint equation below

$$\sum_{i=1}^N \frac{1}{\beta_i} \left( 1 - \left( \frac{C_{si}^2 + C_{ai}^2}{C_{si}^2 - 1 + 2\mu\delta} \right)^{1/2} \right) = \phi \quad (9)$$

When  $C_{ai} = 1$  and  $C_{si} = 1$ , the *GE* traffic optimal expression is reduced to exponential optimal expression.  $D_i$  is the cost associated with having one job in queue and for simplicity, we assign the value of 1.

## Computational Result

In this section, numerical results are presented to assess the credibility of the *GE* distribution used. Two configurations will be shown. For the first configuration, service rate of the tasks are assumed to be  $\mu_1 = 3, \mu_2 = 4$ ,  $C_{a_1} = 0.5, C_{a_2} = 0.3, C_{s_1} = 0.2, C_{s_2} = 0.4$ . The improvement of the performance measures is presented in Fig. 2 and 4. To verify the results, we use simulation and the comparative results are presented in Fig. 3 and 5.

TABLE 1: RESULT OF CLASSICAL AND PROPOSED APPROACHES OF 2-GE/GE/1 QUEUEING SYSTEM, L: MEAN QUEUE LENGTH, W: MEAN RESPONSE TIME.

Classical		Proposed		Classical		Proposed	
$\lambda_1$	$\lambda_2$	$\lambda_1$	$\lambda_2$	$L$	$W$	$L$	$W$
1.6	2.1	1.578	2.122	1.158	0.313	1.153	0.312
1.8	2.4	1.776	2.424	1.47	0.35	1.465	0.349
2.0	2.7	1.981	2.719	1.896	0.403	1.891	0.402
2.2	2.9	2.15	2.95	2.396	0.47	2.377	0.466
2.4	3.2	2.367	3.233	3.36	0.6	3.342	0.597
2.6	3.4	2.544	3.456	4.86	0.81	4.775	0.796

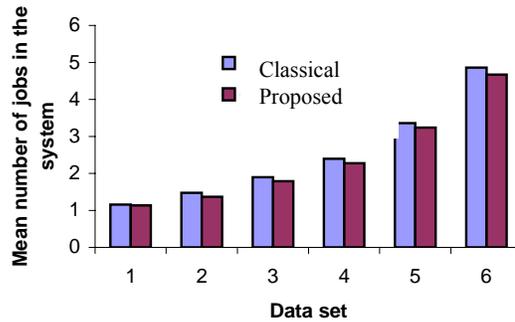


FIG. 2: PERFORMANCE IMPROVEMENT OF MEAN QUEUE LENGTH FOR A DUAL GE/GE/1 QUEUEING SYSTEM

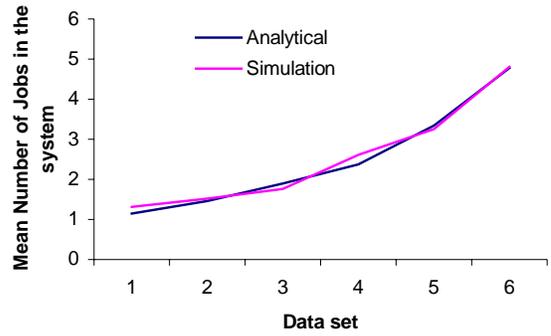


FIG. 3: ANALYTICAL VERSUS SIMULATION RESULT

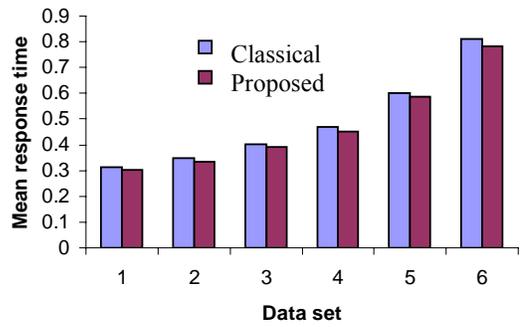


FIG. 4: PERFORMANCE IMPROVEMENT OF MEAN RESPONSE TIME FOR A DUAL GE/GE/1 QUEUEING SYSTEM

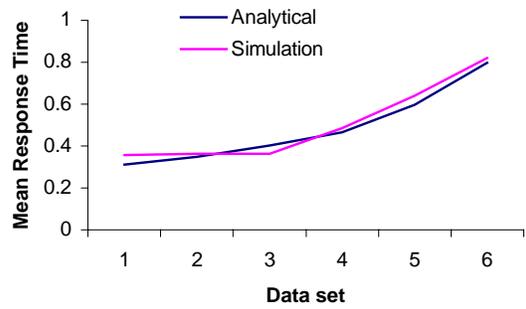


FIG. 5: ANALYTICAL VERSUS SIMULATION RESULT

The second configuration, service rate of the task are assumed to be  $\mu_1=3, \mu_2=4, C_{a_1}=0.1, C_{a_2}=0.2, C_{s_1}=0.4, C_{s_2}=0.3$ .

The improvement of performance measures is presented in Fig. 7 and 9 and the comparative results between proposed and simulation models are given in Fig. 7 and 9.

TABLE 2: RESULT OF CLASSICAL AND PROPOSED APPROACHES OF 2GE/GE/1 QUEUEING SYSTEM

Classical		Proposed		Classical		Proposed	
$\lambda_1$	$\lambda_2$	$\lambda_1$	$\lambda_2$	$L$	$W$	$L$	$W$
1.6	2.1	1.465	2.235	0.906	0.245	0.897	0.212
1.8	2.4	1.698	2.502	1.14	0.27	1.132	0.253
2.0	2.7	1.931	2.769	1.455	0.31	1.449	0.298
2.2	2.9	2.117	2.983	1.82	0.357	1.805	0.342
2.4	3.2	2.35	3.25	2.52	0.45	2.507	0.446
2.6	3.4	2.536	3.464	3.599	0.6	3.539	0.598

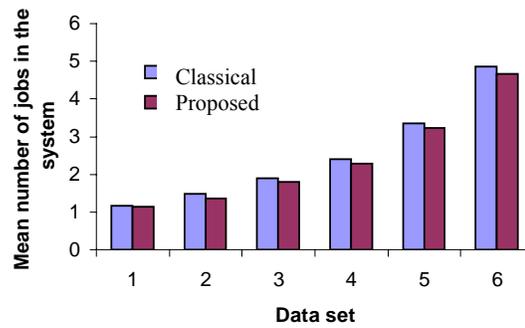


FIG 6: PERFORMANCE IMPROVEMENT OF MEAN QUEUE LENGTH FOR A DUAL GE/GE/1 QUEUEING SYSTEM

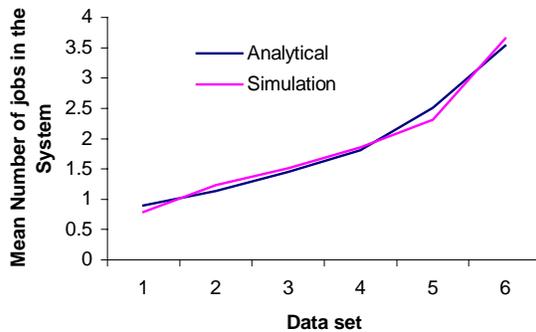


FIG. 7: ANALYTICAL VERSUS SIMULATION RESULT

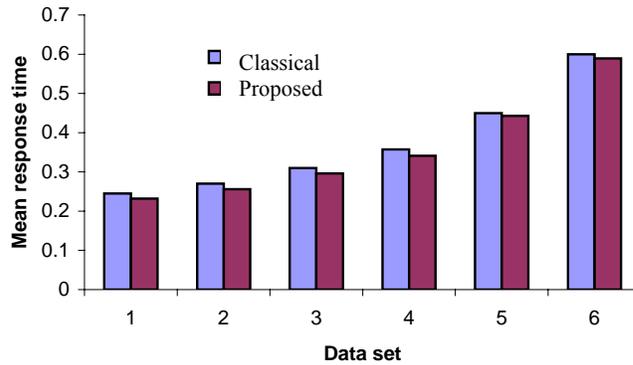


FIG. 8: PERFORMANCE IMPROVEMENT OF MEAN RESPONSE TIME FOR A DUAL GE/GE/1 QUEUEING SYSTEM

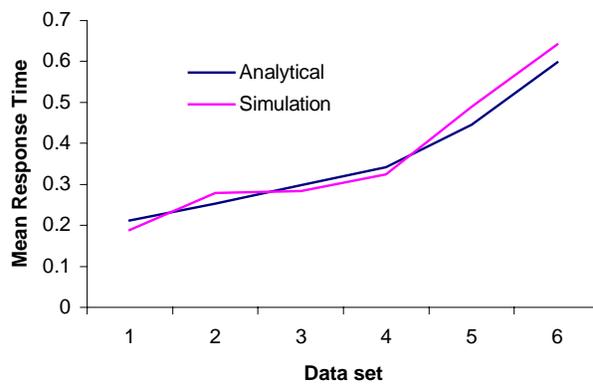


FIG. 9: ANALYTICAL VERSUS SIMULATION RESULT

Further analysis for sample cases of number of servers  $N = \{3,4,5,6\}$ , are shown below.

Numerical Result for Three Queueing Systems

$$\mu_i = (3,2,1) \quad C_{ai} = (0.1,0.2,0.3) \quad C_{si} = (0.2,0.3,0.1)$$

Numerical Result for Four Queueing Systems

$$\mu_i = (4,3,2,1) \quad C_{ai} = (0.1,0.2,0.3,0.4) \quad C_{si} = (0.2,0.4,0.3,0.1)$$

Numerical Result for Five Queueing Systems

$$\mu_i = (5,4,3,2,1) \quad C_{ai} = (0.1,0.2,0.5,0.4,0.3) \quad C_{si} = (0.3,0.4,0.1,0.2,0.5)$$

Numerical Result for Six Queueing Systems

$$\mu_i = (6,5,4,3,2,1) \quad C_{ai} = (0.1,0.2,0.5,0.4,0.3,0.6) \quad C_{si} = (0.6,0.3,0.4,0.1,0.2,0.5)$$

The analysis shows that a larger range for the service rates results in greater percentage improvements of our aggregate objectives. The result of the analysis for the queueing systems is summarized in Fig. 10 below.

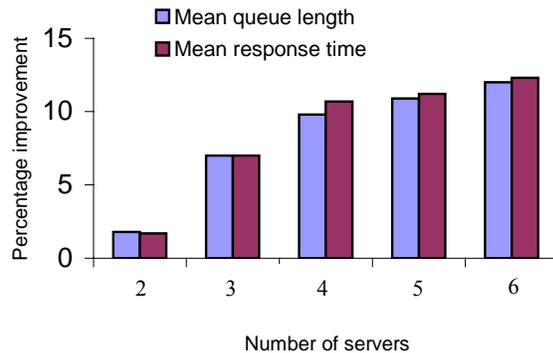


FIG. 10: PERFORMANCE IMPROVEMENT FOR A SAMPLE NUMBER OF SERVERS WHERE  $P = 0.9$ .

## Conclusion

In this paper, a new optimization model of allocating job arrivals to a network of service centers based on Generalized Exponential arrival and service time distribution has been proposed. A closed-loop expression to obtain the routing rate was described. Analytical model and simulation approaches were used to show that the classical allocation of total arrivals between two service centers with the same utilization rate does not provide an efficient performance result for the queueing systems. The result for a number of service centers was shown to portray the improvement. The *GE* distribution has been employed because it could represent exponential and other general distribution. The analytical modeling proposed can be used to guide the business process redesign in some part where networks of service centers are concerned. There are several directions to extend the applicability of this allocation algorithm such as different performance objective function, other arrival and service distribution and arrival with different type of jobs. These examples would involve interesting mathematical problem and could be the subject of future research.

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# Capturing Winning Business Strategies: An Examination of Fit Concept in Firm Export Performance Model

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## Abstract

The paper describes the importance of fit concept and its performance implication. In simple words, the fit concept suggests that, to be successful, there must be a fit between the strategies that firms pursue and the challenges from business environment. Given the importance of export trade in world economy, the paper explains how export performance research might be further enriched by incorporating fit concept that plays a key role in organization research. Conceptualizing fit as profile deviation, the author believes that the pattern analysis described will enable researchers to make specific recommendations to business practitioners to improve their firm export performance. This will reduce the gap between academic research results and real business implementation.

## Introduction

Strategic management is crucial to the success of any company. According to Wheelen and Hunger (1998), strategy is a comprehensive master plan stating how the corporation will achieve its mission and objective. It maximizes competitive advantage and minimizes competitive disadvantage. To operate effectively, firms must have an appropriate fit between their strategies and what their environment calls for. The concept of fit or contingency is an important concept in organizational research (Aldrich, 1979; Fry and Smith, 1987; Venkatraman, & Prescott, 1990). The fundamental assumption of contingency theory is that there is no one best way to organize, and that any one way of organizing is not equally effective under all conditions (Ginsberg, & Venkatraman, 1985). The theory suggests that firms operating in different environmental settings will have different strategy profiles<sup>2</sup> in order to have good strategic environment-strategy fit.

The emergence of contingent theory is related to the failure of the classical, and behavioral management/organization theorists to bring about consistently high performance for organizations over the long run (Griffin, 1996; Lemak, & Arunthanes, 1997). According to Griffin (1996), both classical and behavioral approaches are considered universal perspectives because they tried to identify the “one best way” to manage organizations. In contrast to this belief, the contingency approach suggests that there is no one best way to manage the organization. The appropriate way to manage a firm in a situation depends on or is contingent on unique elements in that situation. In short, an organization ability to achieve its goals depends on the congruence between various components of the organization. If the components fit well, then the organization functions effectively. If they fit poorly, the performance will deteriorate.

Although the concept of fit has been applied in management literature for some time, the concept is never explicitly discussed in export setting. Specifically, rarely is the fit concept discussed rigorously in connection with firm export performance, this paper therefore conceptually discusses how the concept of environment-strategy fit might enrich export performance stream of research.

Influenced by environmental forces, firms need to choose appropriate strategies accordingly. This is especially necessary when firm operate in hypercompetitive world market. Firms have to co-align its strategic moves environmental challenge. It is important to recognize that any one way of managing is not equally effective under all conditions (Ginsberg, & Venkatraman, 1985). An ideal strategy profile in one environmental setting may yield much poorer result if adopted in another environment setting. Miller (1988), for example, argued that the generic strategies (i.e. cost leadership or differentiation strategies as put forward by Porter) couldn't be used successfully across all environmental settings. Miller's findings revealed that the cost leadership strategy would be more powerful in stable rather than in unstable environments, while differentiation strategy would be appropriate in

dynamic and unpredictable environments. Therefore, the obvious implication here is that the choice of appropriate strategy (e.g. adopting either one or both) is contingent on a number of elements in the industrial environment in which firms compete. Carrying out strategies that are compatible with the needs of environment will substantially increase the chance of the firms to succeed.

As aforementioned, the contribution of fit concept to the understanding of firm performance is rarely rigorously discussed in export performance literature. Realizing this gap, this paper argues that firms as well as nation can benefit from knowledge gained from extending the study of fit concept to exporting firms. This is especially beneficial for developing nations whose economic health is significantly driven by export revenue. Applying and conceptualizing fit concept as profile deviation, researchers can substantially learn from top performers (i.e. learn from the derived ideal strategy profile). Namely, researchers will gain an understanding of how top exporting firms configure their resource allocation to bring about business success.

The performance differential among top performers and mediocre firms can be attributed to the difference between their strategy profiles. Realizing this deviation of strategy profiles, researchers can make a specific recommendation to low performing firms on the area that many need improvement, investment or merely more attention from managers in order to improve firm export performance. Because of this strong practical implication, the conceptual and methodological issue of this kind deserves more research attention to enrich our knowledge in export marketing literature.

Before being able to meaningfully discuss and delineate the procedure for testing the fit concept, it is important to first identify the relevant strategic variables that influence the performance of exporting firms. Therefore, a conceptual model of firm export performance needs to be developed. The importance of export can't be overemphasized. According to WTO international trade statistics ([www.wto.org](http://www.wto.org)), the value of world merchandise export trade is about \$7,294 billion in 2003 (WTO, 2003). Rapid internationalization, liberal trade policies of many developing countries and FTA has made cross-border trade an integral part of today world economy (Balabanis, Theodosiou, & Katsikea, 2004). An increasing number of firms see this as opportunity to expand their operations internationally to achieve firms' business goals. With low resource requirement and low financial risks, many firms have chosen to participate in world market through export (Balabanis, Theodosiou, & Katsikea, 2004). An understanding of how successful exporters manage their business would not only be useful to business firms but also to the nation economy.

The remaining of this paper will be organized as follows. First, relevant literature will be discussed to rigorously develop firm export performance model. Second, after the constructs affecting performance are identified in the model, I will move on to the discussion of how the ideal strategy profiles of successful firms can be identified and how fit concept conceptualized as profile deviation is tested. In short, this paper consists of two main parts. The first part focuses on conceptual model of export performance, and the second part on the discussion of how fit concept is tested.

## **Model Development**

Recognizing that firm performance is determined by a number of factors, an interdisciplinary approach is adopted to theoretically develop the model. Insights from several fields of study should substantially enhance our understanding of various factors determining firm performance better than an insights based on a single field of study. Specifically, this paper proposes a model that draws upon three distinct but complementary disciplines. Namely, they are strategic management, purchasing and marketing disciplines. Central to each of these disciplines is the question of how firms can achieves its business objectives successfully or have high performance. Based on conceptual linkage found in management literature, the impact of three strategic constructs, namely, business strategy, purchasing capability, and export market\_orientation, on export business performance is proposed in Fig. 1. However, since firm performance is a function of both controllable factors (or strategy variables) and noncontrollable factors (or environmental variables) (Kotha, & Nair, 1995). The fourth construct, namely environmental turbulence is introduced into the model. Each of these strategic and environmental determinants as well as its respective proposition is briefly explained in the following sections.

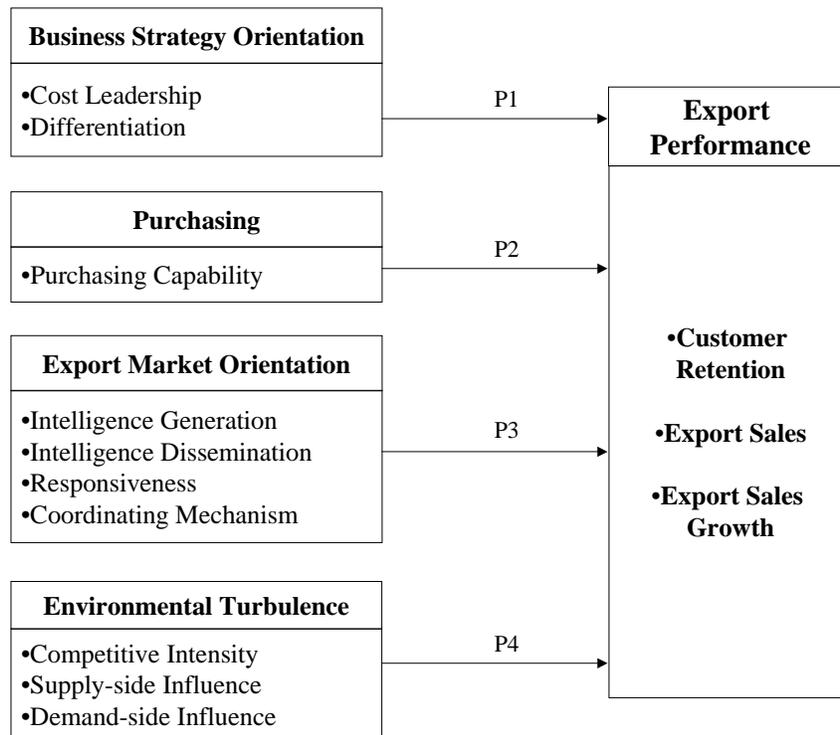


FIG. 1: CONCEPTUAL MODEL OF FIRM EXPORT PERFORMANCE

### Business Strategy

Strategy is a comprehensive plan for accomplishing an organization's goal (Griffin, 1996). It tells how firm go about achieving competitive advantage (Slater, & Olson, 2001). In essence, the concept of fit between strategy and environment suggests that, to be successful, a firm's strategy needs to be in tune with its environment. There must be a strategic fit between what the environment wants and what the firm has to offer (Wheelen, & Hunger, 1998). This implies that firms must constantly monitor the environmental changes and adapt firms' strategy accordingly. Past research has rendered support to this notion. For example, empirical findings revealed that there are positive relationship between environmental scanning and profitability of the firm (Thomas, Clark, & Gioia, 1993).

A notable contributor who is influential to the study of strategic behavior in organizations is undoubtedly Michael E. Porter. He proposes generic competitive strategy (Porter, 1990) that has been referred to widely in business literature and text. The popularity of Porter's typology of generic strategy might be due to the fact Porter's strategy type seem to integrate concepts of other typologies (Kumar, Subramanian, & Strandholm, 2001; Miller, 1989). Simply put, firms can derive its competitive advantage by pursuing cost leadership or differentiation strategy. Traditionally, it has been argued that firms have to choose to excel in either of these two. Firms trying to pursue both will "get struck in the middle". In contrast, later researchers show that it is possible to simultaneously pursue both strategies successfully (e.g. Kim, Nam, & Stimpert, 2004). Implementing one strategy doesn't necessarily preclude the firm from pursuing another strategy. For example, Hill (1988) put forward an interesting proposition that resolves the puzzle and debate over differentiation-cost leadership dichotomy. Applying contingency theory, Hill's main thrust is that in some environments both cost and differentiation strategy can be used, and this can possibly lead to sustainable competitive advantage. Hill argued that the simultaneous pursue of low cost and differentiation strategy in the right contexts (as he identified in his article) will bring about high profitability. This suggests that firms can pursue not only either strategy but also both strategies simultaneously to

gain competitive advantage. Both strategies are instrumental to achieve business success since they enable firms to deliver goods that are of value to customers. Thus, proposition 1 is put forward as follow.

P1: Business-level strategy (cost leadership and differentiation) is positively related to firm export performance.

#### **Purchasing Capability**

Purchasing undoubtedly plays key role in providing necessary inputs for firms. These inputs are then transformed or assembled into final products with attributes that satisfy customers' requirements or needs. The role of purchasing plays an integral part in helping the business to run smoothly. However, the academic research development is not commensurate with its heightened strategic importance in business. In addition, existing research in purchasing is still largely exploratory (Das, & Handfield, 1997).

According to Das and Handfield (1997), the purchasing discipline has not received as much share of research interest as many other research fields have. The issue seems not to be in the main stream of business research. Similarly, Chen, Paulraj and Lado (2004) have also addressed this theoretical void. They note that the claims of the strategic role of purchasing have not been fully subjected to rigorous theoretical and empirical scrutiny. Researchers tend to downplay their role by simply viewing the purchasing simply as a subset of manufacturing strategy.

However, in recent decades, the importance of purchasing has been improved from simply an operational one to a strategic one (Carter, & Narasimhan, 1996). The underlying belief of this shift in its recognized status is that effective management of purchasing will equip firms with competitive advantages (Narasimhan, Jayaram, & Carter, 2001). Similarly, Freeman and Cavinato (1990) argue that purchasing has a strategic influence on firm performance. However, the claimed link of purchasing and performance in past research has been descriptive in nature and few empirical studies have quantified the actual impact of purchasing on firm performance (Narasimhan, Jayaram, & Carter, 2001)

According to resource-based theory, firm capability can explain performance differential among firms. Barney (1991) argued that firm capability can create sustained competitive advantage if it is not tradable in strategic factor market and are historically based. Purchasing capability exactly possesses these two characteristics. It is not available in any factor market. Firm must develop and build its own network of supply and maintain good working relationship with suppliers. Developing a superior purchasing capability enables firms to maintain low waste rate, be cost efficient, meet required product quality standard and be more customer responsive. Purchasing capability is thus a firm-specific intangible resource that is likely to be a source of sustainable competitive advantage. Thus, proposition 2 is stated as follows.

P2: Purchasing capability is positively related to firm export performance.

#### **Export Market Orientation**

Fundamental to marketing discipline is marketing orientation concept. It enables firms to create sustainable competitive advantage by offering products that are of value to customer, that is, perceived value is greater than total acquisition cost (Narver, & Slater, 1990). Market orientation helps firms to have outstanding performance through the commitment to creating superior value for customers (Slater, & Narver, 2000). The emphasis on delivering superior quality offering to customer has long been an important issue for helping business to operate successfully. According to Jaworski and Kohli (1993), since customer needs and expectation continually evolves over time, being able to deliver consistently customer value necessitates firm's ongoing tracking and responsiveness to changing marketplace needs. That is, to deliver customer value, firms must try to understand customer needs by being market oriented to create strategic fit between what customers want and what firms offer.

Given its significance in business, a number of researchers have tried to analyze the potential impact of market orientation on such organizational issues as new product success, product quality, customer service, and sales-force commitment (Cadogan, Diamantopoulos, Mortanges, 1990). It is claimed that a link between market orientation and performance exists (Greenley, 1995; Cadogan, Cui, & Li, 2003; Akyol, & Akehurst, 2003). In addition, Dobni and Luffman (2000) note that the ability to be market oriented helps firm to coalign its key behaviors with the competitive context, which ultimately determines firm performance. Therefore, proposition 3 is stated as follows.

P3: Export market orientation is positively related to export performance.

### **Environmental Turbulence**

Selecting appropriate level of environment is crucial for researchers, since it is impossible to examine every aspects of environment (Castrogiovanni, 1991). Because the focus of this paper is related to firm-level variables, environment at task environment level is appropriate to understand the phenomenon occurring at organizational level (Castrogiovanni, 1991).

Firms in the same industry in a nation are usually exposed to the same set of general environmental factors. In particular, they are facing with the same rate of technological development, the same inflation rate, the same growth rate in GDP or the same economic depression, and the likes. However, unlike these macroeconomic forces, task environment in the same industry can be different among firms. Each firm has its own contacts with different set of economic players. Namely, firms are exposed to forces stemming from their unique set of competitors, customers, and suppliers.

Environmental forces undoubtedly affect firm operation. They are persistent source of business uncertainty that requires managerial attention. From an industrial organization perspective, firms' profitability is affected by the forces of various parties operating in the boundary of firm business environment. The notable forces come from three economic players in firm task environment, namely, competitors, suppliers, and customers. The pressure these three players exert on firm is environmental turbulence that firms have to encounter and manage because of their substantial performance implication. For example, if fierce competition, price or promotion war is the dominant characteristics of the business environment, resources spent to implement proactive or reactive responses to such competitive pressure inevitably erode firm's profitability. Similarly, if a firm is over-influenced by its suppliers (e.g., firms may have contact with only a few dominant suppliers) or customers (e.g. customers can switch to buy from others with minimal effort), firm performance is likely to be negatively affected. Therefore, proposition 4 is stated as follows.

P4: Environmental turbulence is negatively related to export performance.

### **Export Performance**

Scholars have examined a number of variables as various dimensions of export performance. These can be broadly categorized into two groups: financial and nonfinancial dimensions. However, when studying export performance, past research has unproportionately favored the study of economic or financial dimension of export performance. That is, past studies simply view or study export performance only from financial aspect (e.g. export sales or sales growth rate). Non-financial aspect like customer retention is rarely examined in export performance literature. Extending the argument of Cavusgil, & Zou (1994) and given the importance of customer retention to firm performance (e.g. attracting new export customers normally is much more costly than attracting new domestic customers), export performance literature would be further enhanced if this non-economic aspect of firm (namely, customer retention) is incorporated and studied in the export performance research.

Based on the above export performance model, in the next section, the propositions related to performance impact of the coalignment between strategy and environment will be presented and the testing procedure explained.

## **Fit Concept as Profile Deviation**

The underlying belief of fit concept is that there is an appropriate pattern of strategic variables in an environment that brings about high export performance. Allocating too little or too much resources to excel in a particular area or to build a firm-specific resource or capability will not be good for firm performance. The earlier section has already pinpointed the firm-specific capability or strategic variables for further discussion in this section. Firms have to decide to build the right profile composing of these variables, which are under direct control of firm's management to achieve firm objective.

In this section, there are two primary objectives. First, propositions related to fit concept are developed and presented. Second, analytical procedure for testing fit concept is delineated.

### **Environment-Strategy Fit Propositions**

The contingency theory, which is the central tenet in the organization theory literature, is based on the open system paradigm and on the notion of fit between the organization and its environment (Lemak, & Arunthanes, 1997; Katz, & Kahn, 1966; Lawrence & Lorsch, 1967). "Fit" is a desirable property because of its significant performance

implications (Venkatraman, 1990). Specifically, strategic management theorists assert that firm's performance is a function of the fit between its strategy and challenges from the environment. If firm pursue the right strategic posture, substantial performance improvement will result (Jauch, Osborn, & Glueck, 1980). Based on this, managers and scholars believe that choice of strategy should be made by referring to the specific environment of the firms (Murray, 1988). This is especially true for exporting firms whose environment is more dynamic than those of domestic firms. Given the significant impact of having the right strategy in the environment, this paper proposes research model illustrating the concept of fit between strategy and environment to enhance the understanding in this area. A framework is depicted in Fig. 2 to facilitate explanation. The figure postulates that in a given environmental setting where a number of firms operate, firms can be classified into two broad groups according to their performance. The first group is firms with high performance. This is the group of firm where "ideal (or good) strategy profiles", are derived. The remaining firms constitute the second group, the not-high performing firms. As evidenced from past studies, firms with high performance are conceived of as having a strategic fit between their strategy and environmental context, whereas firms with low performance adopt the strategy that doesn't respond to the need of the environment (e.g. Miller, 1988; Hill, 1988).

Given the different level of performance between these two groups of firms, two propositions can be derived. First, by inferring from previous researches about the strategy-environment fit, it suggests that ideal strategy profiles should not be similar to not-ideal strategy profiles. Second, the misfit score or deviation from the ideal strategy profile should lead to poor performance (Venkatraman, 1989; Venkatraman, & Prescott, 1990). These two propositions are restated below.

*P5: Ideal strategy profiles and not-ideal strategy profiles are statistically different from one another.*

*P6: Deviation from ideal strategy profile should be negatively related to performance.*

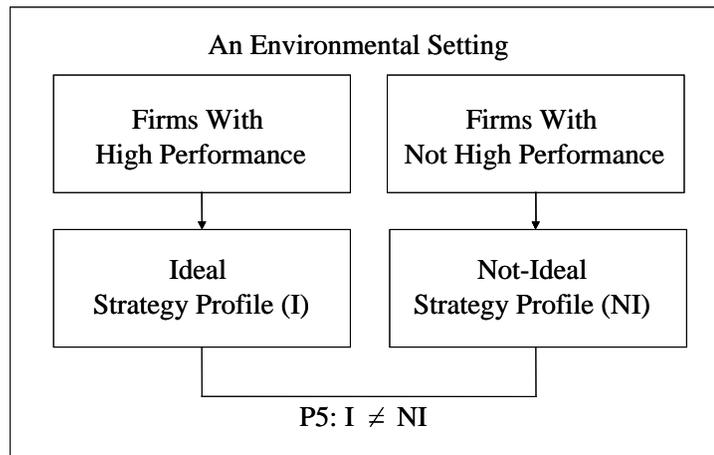


FIG. 2 : COMPARISON OF IDEAL AND NOT-IDEAL STRATEG PROFILE

#### Analytical Procedure

In this section, testing procedure is presented. Shown in Fig. 3 is the overview of the analytical procedure for this research paper. After the data are gathered, the research will proceed by following the procedure that is described step-by-step below.

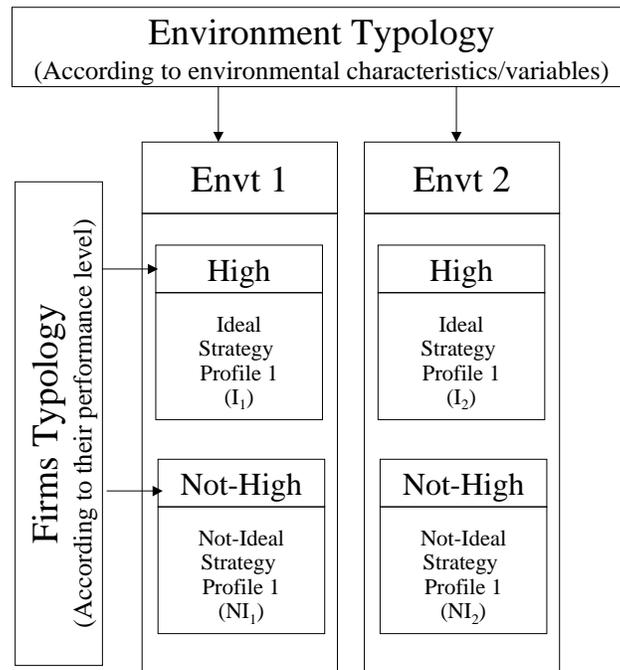


FIG. 3: RESEARCH DIAGRAM ILLUSTRATING ANALYTICAL PROCEDURE

1. All the *environmental variables* of all responding firms will be plugged into cluster analysis. Firms facing similar environmental forces will therefore be classified into the same groups/clusters of environment. For explanation purpose, say K-mean method with  $K=2$  might be used to categorized firms into two homogeneous environmental clusters.
2. In each environment/cluster, firms are further classified into two groups according to their composite export performance score. Many researchers use the composite measure when several measures of performance are employed (e.g. see Leonidou, Katsikeas, & Samiee, 2002). Firms with high composite performance score in each environment (e.g. above 4 on 7-point performance scale) will be categorized as “high performing firms” or “High”, while the remaining firms constitute the second group, namely, “the not-high performing firms” or “Not-High”. The practice of dichotomizing measurement scale into high and not-high is consistent with past researchers (e.g. Miller, & Friesen, 2001).
3. Ideal strategy profiles and non-ideal strategy profiles can now be derived. In environment 1, ideal strategy profile is the centroid (or mean values of the vector of *strategy variables*) of high performing firms, while non-ideal strategy profile is the centroid of not-high performing firms. The same procedure applies for environmental cluster 2.
4. In order to test the fit-related propositions, two testing procedures are carried out.
  - 4.1. First, the ideal strategy profile is compared with the non-ideal strategy profile in each environment. MANOVA will be used in this step to test proposition 5. MANOVA are used to assess the statistical significance of differences between groups. According to Hair, Anderson, Tatham, and Black (1995), a series of univariate ANOVA tests ignores the possibility that some linear combination (composite)

of the dependent variables may provide evidence of an overall group difference that may go undetected by examining each dependent variable separately. MANOVA may be able to detect combined differences not found in the univariate tests. By conducting two separate MANOVA tests (please see table 1), it is expected that the centroid or vector of the mean of *ideal* strategy variables will be statistically different from the centroid of *non-ideal* strategy profile in both environment. If the results turn out to be as expected, this confirms the notion that in a particular environment, there are distinctive set of strategy profiles that fit with the environmental needs and that differ significantly from non-ideal strategy profile. That is, using the right or ideal strategy profile in the right environment will enable firms to have high performance. However, pursuing strategy that is statistically different from the ideal strategy profiles is linked to the deterioration of organization performance (because firm pursuing such strategy is categorized in “Not-high” group). To confirm this notion, such linkage can be further tested in step 4.2.

TABLE 1: MANOVA TESTS

Tasks	Expected Results
1. Comparing $I_1$ with $NI_1$ (i.e. $H_0$ : vector of $M_{I1}$ = vector of $M_{NI1}$ )	1. $I_1$ is significantly different from $NI_1$ .
2. Comparing $I_2$ with $NI_2$	2. $I_2$ is significantly different from $NI_2$ .

- 4.2. Second, as a further analysis to explore more about strategy-environment congruence of firms, another testing procedure is performed to test proposition 6. This procedure is consistent with that of past research (e.g. Van de Ven, & Drazin, 1985; Venkatraman, and Prescott, 1990; and Roth, Schweiger, and Morrison, 1991. The “pattern approach to fit/pattern analysis” (Van de Ven, & Drazin, 1985) or the “holistic perspective of coalignment” (Venkatraman, and Prescott, 1990) is based on the belief of system theorists who conceive firms as holistic entities. So it is important to retain the holistic nature when testing performance effect of environment-strategy fit. The testing procedure calls for the computation of the correlation coefficient ( $r$ ) between misfit score and composite performance score. Although the explanation here will describe the steps to compute  $r_1$  only (i.e. the correlation coefficient for environment 1) for the first ideal strategy profile, the steps must also be repeated for the second ideal strategy profile to compute  $r_2$  (correlation coefficient for environment 2). First, misfit score will be computed by calculating the Euclidean distance between the ideal strategy profile 1 ( $I_1$ ) and each firm’s vector of strategy variables in “Not-High” group in environment 1. (In computer terminology, each record or firm will therefore have an additional column of variable, called misfit score.) Misfit score will be computed only for the firms that are in the low performing or “Not-High” group. Second, misfit scores of these firms will be correlated with their respective composite performance score. The negative and significant correlation coefficients (e.g.  $r_1$  and  $r_2$ ) will signify that as firm’s strategy deviate from the ideal strategy profile, its performance will be negatively affected. Based on this pattern analysis, researchers may be able to cautiously make specific recommendation for firms to fine-tune some of its strategy variables to improve firms’ export performance.

## Conclusion

As conceivably, business environment poses both threat and opportunity to firms. The environmental force brings about uncertainty that calls for close managerial attention. Firms that fail to align their firm strategy to build necessary capabilities to match business environmental challenges will undoubtedly be left far behind by fierce competition.

Even realizing that fit between strategy and environment will bring about not only business survival but also success; only a few research papers explicitly discuss how fit concept should be conceptualized and tested. The concept of fit is riddled with problems of conceptualizing and testing (Venkatraman, & Prescott, 1990). Despite the recognized importance of export as a growth engine for economic prosperity, not many management literatures theoretically discuss fit concept in connection with firm export performance. As an attempt to increase research momentum in this area, this paper conceptually combines and addresses both issues simultaneously. More study on exporting firms with strategic posture that fit with environmental challenge would add to our pool of knowledge in both export and strategic management literature.

Overall, this kind of research will further tighten the linkage and reduce the gap between academic research results and implication for real business practices. For example, researcher may use the results from cluster analysis and feed into discriminant analysis to formulate discriminating functions (i.e. linear combinations of environmental variables), which can be used to identify which type of environment a non-sample firm might fall into. When environmental type is known, the derived ideal strategy profile in that particular environment can serve as a broad guideline for that particular firm. More or less, the firm will learn some business lessons from the practices of high performing as well as those of not-high performing firms. Where appropriate, such firm may cautiously adopt and modify an ideal strategy profile that is appropriate for its own use to improve the firm export performance.

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## **End Notes**

The term strategy profile refers to a set of strategy variables. Different combinations of strategy variables (each variable can take different value) constitute different strategy profiles.

# Concepts of Change Management from Central European Perspective – A Case of Slovakia

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## Abstract

**Identifying the need for organization-wide change and leading organizations through that change is widely recognized as one of the most critical and challenging responsibilities of organizational leadership. I argue that these responsibilities have become even more important also in Central and Eastern Europe in recent years as organizations are living through a time of tremendous changes (significant change of the political and legal system, transition from a centrally planned to market economy etc.). Change management has been a perennially popular topic in the organizational effectiveness. This article focuses on approaches and models useful for Slovak managers to lead their companies through organizational changes.**

## Introduction

In a world of continuous growth and powerful competition, the capability to predictably manage change will likely separate those organizations which will have long sequences of business success from those with one or two bright spots that then disappear. The notion that we can get control of things once they calm down is a formula for disaster. The winners will be those who are skilled at continuous change punctuated by periods of radical change.

In thinking about what is meant by change management at least three basic definitions according to Nickols (2004) come to mind: the task of managing change, an area of professional practice and a body of knowledge. The first and most obvious definition of “change management” is that the term refers to the task of managing change. The obvious is not necessarily unambiguous. Managing change is itself a term that has at least two meanings. One meaning of “managing change” refers to the making of changes in a planned and managed or systematic fashion. The aim is to more effectively implement new methods and systems in an ongoing organization. The changes to be managed lie within and are controlled by the organization. However, these internal changes might have been triggered by events originating outside the organization, in what is usually termed “the environment.” Hence, the second meaning of managing change, namely, the response to changes over which the organization exercises little or no control (e.g., legislation, social and political upheaval, the actions of competitors, shifting economic tides and currents, and so on). Researchers and practitioners alike typically distinguish between a knee-jerk or reactive response and an anticipative or proactive response.

The second definition of change management is “an area of professional practice.” There are dozens, if not hundreds, of independent consultants who will quickly and proudly proclaim that they are engaged in planned change, that they are change agents, that they manage change for their clients, and that their practices are change management practices. There are numerous small consulting firms whose principals would make these same statements about their firms. And, of course, most of the major management consulting firms have a change management practice area. Some of these change management experts claim to help clients manage the changes they face – the changes happening to them. Others claim to help clients make changes. Still others offer to help by taking on the task of managing changes that must be made. In almost all cases, the process of change is treated separately from the specifics of the situation. It is expertise in this task of managing the general process of change that is laid claim to by professional change agents.

Stemming from the view of change management as an area of professional practice there arises yet a third definition of change management: the content or subject matter of change management. This consists chiefly of the models, methods and techniques, tools, skills and other forms of knowledge that go into making up any practice. The content or subject matter of change management is drawn from psychology, sociology, business administration, economics, industrial engineering, systems engineering and the study of human and organizational behavior. It is not

clear whether this area of professional practice should be termed a profession, a discipline, an art, a set of techniques or a technology. For now, suffice it to say that there is a large, reasonably cohesive albeit somewhat eclectic body of knowledge underlying the practice and on which most practitioners would agree — even if their application of it does exhibit a high degree of variance.

#### **Purpose of this Paper**

Globalization, the disruptive influence of new technologies, the emergence of e-business, the exploration of new scientific discoveries and growing electronic connectivity among financial markets are all accelerating the pace of commerce throughout the world today.

From the central European perspective, the globalization has been intensified by radical change in a political system at the end of the ninth decade of the last century, deregulations, privatizations of state owned property, creation of a private bank and financial sector, definition of new laws and regulations. It is obvious that a tremendous turbulent market was created, where the organizations should set up and conduct their businesses and increase their economic values.

Firstly, the purpose of this paper is to present recent relevant approaches and concepts on change management which have been developed in schools of management, psychology, sociology, economics and other fields, briefly describe some of the tools and provide a selective review of key change models that have been developed to assist the management of change and are or should be used also in Central and Eastern European countries.

Main focus is placed on the schools, concepts and techniques useful in Slovak conditions and environment, because of an increasing need to deal with challenges of intentional organization-wide change resulting from the current reforms in Slovakia. The document addresses not just private sector business organizations but also state owned companies in this country.

Second goal is to provide a theoretical approach to lead Slovak organizations through organization-wide change process by using basic change management strategies and underline necessary skills for a successful change. A key element – people involvement is especially emphasized.

Finally, the main goal is to characterize changes and introduce such a Slovak organization, where transformational changes happen and some of the above-mentioned theoretical approaches were used.

#### **Approach and Method**

In order to explore this large and complex field a multi-method approach was used. First, a list of key theories and concepts was defined after reference to general management texts and review articles addressing change management, as well as through consultation and discussion with academics, management consultants and managers from Slovak republic. Desk research was accompanied by further discussions with practitioners over which tools, models and approaches they deemed most and least important, and which concepts were most commonly discussed by practitioners.

These tools, models and approaches were then subject to a systematic literature review, carried out by identifying key books and reports by seeking advice from academics and practitioners, and by reviewing published articles looking for influences and references. Criteria used for assessing the rigour of empirical studies were: clarity of methodology, use of multiple case studies, and external evaluation.

### **Approaches, Concepts, Tools and Models of Change Management**

Reflecting the sustained interest in organizational change and change management, a wide variety of approaches, concepts and tools have been developed to both initiate and manage organizational change and to control and direct change caused by unplanned disruptions. Many of the most popular tools are focused on achieving quality improvements; addressing worker concerns; and enhancing flexibility by changing organizational structure, processes, people, and/or culture. Nadler and Tushman (1997), Lawler et al. (1992, 1998, 2001) and others emphasize that the choice of approach, concept or tool depends upon the organization's nature, resources, and problems, and must be tailored to the specific contest and organization.

Mc Namara (1999) compiled an overview of the tools, concepts and approaches for organizational change and improvement that are used in change management (for example: Weisbord's Six-Box Organizational Model; 7S

Model; PESTELI; Five Ways; Content, Context and Process Model; Soft Systems Methodology; Process Modeling; SWOT Analysis; Force Field Analysis; Sources and Potency of Forces; Readiness and Capability; Commitment, Enrolment and Compliance; Organization-level Change; TQM; Business Process Reengineering; Parallel Learning Structures; Self-managed Teams; Innovation Research; Securing Individual Behavior Change; Organizational Development; Learning Organization; Action Research; Project Management etc.). I identified the following as candidate tools and approaches which I recommend to use in Central and Eastern European countries (esp. in Slovakia):

- Balanced Scorecard (ensure well-rounded performance, especially from managers, by designing an evaluation that takes into account the perspective of clients-customers, manager, peer, and subordinate on four dimensions: customer service, internal business processes, learning and growth, and financials)
- Business Process Reengineering (increase performance by radically redesigning the organization's structures and processes, including starting over from the ground up)
- Cultural Change (accomplish radical and fundamental change by changing the basic values, norms, beliefs, etc., among members of the organization)
- Employee Involvement (engaging personnel from throughout the organization to identify issues, purpose solutions, and become partners in implementing the changes needed to succeed in present and future environments).
- ISO 9000 (implement internationally recognized standards of performance and quality using guidelines especially focused on environmental performance).
- Management by Objectives (align goals and subordinate objectives throughout the organization – a form of planning)
- Learning Organization (enhance organization systems (including people) to increase capacity for performance - impact demands upon how well the enhanced ability is applied in the organization).

Although contemporary Slovak management practice remains deeply in the mechanistic and an autocratic model of management, it is increasingly influenced by an organic construct of the organization that emphasizes organization-external environment interactions, participation and worker motivation. Indeed, a substantial focus in the change management literature is helping also Slovak organizations, and top management, change their management model and their managers' behaviors.

Kurt Lewin's (1958) three-phase model of change – unfreeze, move or change, and refreeze – provides the framework for much of the literature that deals with intentional change in organizations (Goodstein and Burke 1995; Sapienza 1995; Kotter 1998). An important aspect of this framework is the centrality of changing the individuals who comprise the organization and the explicit recognition that change will be resisted, and that overcoming this resistance requires leadership (and hence the involvement of top management) and creates costs, which in the case of individuals include substantial emotional work. These aspects are especially relevant for the Slovak conditions and not just for private sector businesses but as well as for state owned companies. Lewin identified three ways that organizational change could be accomplished:

- Changing the individuals who work in the organization (their skills, values, attitudes and eventually behavior) – with an eye to instrumental organizational change
- Changing various organizational structures and systems - reward systems, reporting relationships, work designs
- Directly changing the organizational climate or interpersonal style - how often people are with each other, how conflict is managed, how decisions are made.

## Four Basic Change Management Strategies

I chose a concept of basic strategies, according to Bennis, Benne&Chin (1989), which can be used in Slovak conditions:

**Empirical-Rational Strategy:** People are rational and will follow their self-interest — once it is revealed to them. Change is based on the communication of information and the proffering of incentives.

**Normative-Reeducative Strategy:** People are social beings and will adhere to cultural norms and values. Change is based on redefining and reinterpreting existing norms and values, and developing commitments to new ones.

**Power-Coercive Strategy:** People are basically compliant and will generally do what they are told or can be made to do. Change is based on the exercise of authority and the imposition of sanctions.

**Environmental-Adaptive Strategy:** People oppose loss and disruption but they adapt readily to new circumstances. Change is based on building a new organization and gradually transferring people from the old one to the new one.

Generally speaking, there is no single change strategy. It can be adopted a general or what is called a "grand strategy" but, for any given initiative, the best is some mix of strategies. Which of the preceding strategies to use in mix of strategies is a decision affected by a number of factors. Some of the more important ones follow.

- **Degree of Resistance.** Strong resistance argues for a coupling of power-coercive and environmental-adaptive strategies. Weak resistance or concurrence argues for a combination of Empirical-Rational and normative-reeducative strategies.
- **Target Population.** Large populations argue for a mix of all four strategies, something for everyone so to speak.
- **The Stakes.** High stakes argue for a mix of all four strategies. When the stakes are high, nothing can be left to chance.
- **The Time Frame.** Short time frames argue for a power-coercive strategy. Longer time frames argue for a mix of empirical-rational, normative-reeducative, and environmental-adaptive strategies.
- **Expertise.** Having available adequate expertise at making change argues for some mix of the strategies outlined above. Not having it available argues for reliance on the power-coercive strategy.
- **Dependency.** This is a classic double-edged sword. If the organization is dependent on its people, management's ability to command or demand is limited. Conversely, if people are dependent upon the organization, their ability to oppose or resist is limited. (Mutual dependency almost always signals a requirement for some level of negotiation.)

### Necessary Skills by Managing Change

Managing the kinds of changes encountered by and instituted within organizations requires an unusually broad and finely honed set of skills, chief among which are the following.

#### Political Skills

Organizations are first and foremost social systems. Without people there can be no organization. Slovak managers should especially be aware of this fact! Lose sight of this fact and any would-be change agent will likely lose his or her head. Organizations are hotly and intensely political. And, as one wag pointed out, the lower the stakes, the more intense the politics. Change agents dare not join in this game but they had better understand it. This is one area where it is necessary to make own judgments and keep own counsel; no one can do it for another.

#### Analytical Skills

Make no mistake about it, those who would be change agents had better be very good at something, and that something better be analysis. Guessing won't do. Insight is nice, even useful, and sometimes shines with brilliance, but it is darned difficult to sell and almost impossible to defend. A lucid, rational, well-argued analysis can be ignored and even suppressed, but not successfully contested and, in most cases, will carry the day. If not, then the political issues haven't been adequately addressed.

#### People Skills

As stated earlier, people are the sine qua non of organization. Moreover, they come characterized by all manner of sizes, shapes, intelligence and ability levels, gender, sexual preferences, first and second languages, religious beliefs,

attitudes toward life and work, personalities, and priorities — and these are just a few of the dimensions along which people vary. We have to deal with them all.

The skills most needed in this area are those that typically fall under the heading of communication or interpersonal skills. To be effective, we must be able to listen and listen actively, to restate, to reflect, to clarify without interrogating, to draw out the speaker, to lead or channel a discussion, to plant ideas, and to develop them. All these and more are needed. Not everybody will have to learn Russian, French, or Spanish, but everybody will have to learn to speak Systems, Marketing, Manufacturing, Finance, Personnel, Legal, and a host of other organizational dialects. More important, everybody has to learn to see things through the eyes of these other inhabitants of the organizational world. A situation viewed from a marketing frame of reference is an entirely different situation when seen through the eyes of a systems person. Part of the job of a change agent is to reconcile and resolve the conflict between and among disparate (and sometimes desperate) points of view.

#### System Skills

There's much more to this than learning about computers, although most people employed in today's world of work do need to learn about computer-based information systems. For now, let's just say that a system is an arrangement of resources and routines intended to produce specified results. To organize is to arrange. A system reflects organization and, by the same token, an organization is a system.

A word processing operator and the word processing equipment operated form a system. So do computers and the larger, information processing systems in which computers are so often embedded. These are generally known as "hard" systems. There are "soft" systems as well: compensation systems, appraisal systems, promotion systems, and reward and incentive systems.

There are two sets of systems skills to be mastered. Many people associate the first set with computers and it is exemplified by "systems analysis." For the most part, the kind of system with which this skill set concerns itself is a "closed" system which, for now, we can say is simply a mechanistic or contrived system with no purpose of its own and incapable of altering its own structure. The second set of system skills associated with a body of knowledge and it deals with people, organizations, industries, economies, and even nations as socio-technical systems — as "open," purposive systems, carrying out transactions with other systems and bent on survival, continuance, prosperity, dominance, plus a host of other goals and objectives.

#### Business Skills

This entails an understanding of money — where it comes from, where it goes, how to get it, and how to keep it. It also calls into play knowledge of markets and marketing, products and product development, customers, sales, selling, buying, hiring, firing, etc.

#### **Managing People Involvement – A Necessary Competence of Slovak Managers**

Where a change must be implemented from the outside, so to speak, that is, when it has not been defined as necessary by the people involved, then it is unlikely to succeed (yield the full results of which people have ambitions) unless some of those involved are in favour of it. Several observers have suggested however that not everyone needs to support a change, and that not everybody needs to support it to the same extent.

Senge in *The Fifth Discipline* (1990) talks of the difference between commitment, enrolment and compliance, suggesting that while it is more pleasant (and reassuring) to have considerable commitment, it is not necessary for everyone to be as fully signed-up as this. There exist a number of positions along a continuum, along which players may position themselves in response to proposed action and change as illustrated below.

Commitment: Want change to happen and will work to make it happen. Willing to create whatever structures, systems and frameworks are necessary for it to work.

Enrolment: Want change to happen and will devote time and energy to making it happen within given frameworks. Act within the spirit of the frameworks.

Genuine compliance: See the virtue in what is proposed, do what is asked of them and think proactively about what is needed. Act within the letter of the frameworks.

Formal compliance: Can describe the benefits of what is proposed and are not hostile to them. They do what they are asked but no more. Stick to the letter of the framework.

Grudging compliance: Do not accept that there are benefits to what is proposed and do not go along with it. They do enough of what is asked of them not to jeopardize position. They voice opposition and hopes for failure. Interpret the letter of the framework.

Non-compliance: Do not accept that there are benefits to what is proposed and have nothing to lose by opposing the proposition. Will not do what is asked of them. Work outside the framework.

Apathy: Neither in support of nor in opposition to the proposal, just serving time. Don't care about framework.

Senge suggests analyzing what level of support is required from each of the players and directing energy to achieve that, rather than trying to persuade everybody to commit.

## **Case of Slovakia**

The transformation of economic and social life after 1989 was much harder for the economy of the Slovak part of former Czechoslovak Federation. This was true especially for engineering production. There were structural deformations from the period of centrally planned economy. The process of transformation from state ownership into other forms of ownership has been a sensitive economic and social problem. It includes restitutions, transfer of a part of state property into ownership by towns, liquidation of non-effective state enterprises and privatization itself. The biggest foreign investors and owners of successful companies in Slovakia include Volkswagen, KIA, Peugeot-Citroen, Whirlpool, Alcatel, Siemens, Assi Doman, Coca Cola, Neusiedler, Deutsche Telekom, U.S. Steel, Degussa, Aventis, Continental, INA and Nestle. The Slovak power distance index value is close to the values of countries such as the USA, the Netherlands, the UK or Germany that form the majority of countries establishing their businesses in Slovakia. Similarity of the power distance index values (Luptakova, Vargic and Kincel, 2004) suggests that the concepts commonly used by companies entering Slovakia are flexibly adapted in Slovakia and foreign companies do not witness major problems managing local workforce and implementing human resource management procedures.

The amount of national investments started growing in 1994. According to analyses the dynamics of the growth of investments in industry is insufficient. This is because of the lack of national resources especially in enterprises without foreign capital investment.

Progress in the area of restructuralization and change processes in enterprises in the Slovak Republic is not completely satisfactory. Together with a group of highly profitable enterprises there are still many loss-making companies, which need restructuralization to survive. The main reasons for insufficient restructuralization were weak bank sector, insufficient procedures within the framework of bankruptcy and a lack of foreign capital. Relatively low overhead expenses, a cheap and educated labor force, EU membership resulting in advantages of access to European markets, and last but not least the much more transparent domestic and foreign policies of the new government cabinet, still constitute advantages for Slovakia. Slovak managers have to face a difficult task to lead companies through complex change processes.

### **Change Management in the Slovak Railways**

Železničná spoločnosť, a.s. (ZSSK) – a new entity in the railway transport sector – has completed three years of its independent existence since the split-up of the unitary Railways of Slovak Republic (ŽSR). In January 2002 the former Railways were divided into two companies, which meant practical splitting-up of infrastructure and services of passenger and freight transport. The domain of the newly established ZSSK is to carry out the railway transport and business activities, while ŽSR retained the infrastructure management in its competencies.

The year 2004 was the year of reforms in the Slovak republic. Beside the tax reforms, social system, education system, health service and public administration reforms, that year was of crucial importance also for the continuing transformation of the railway companies in Slovakia. The state, being the ZSSK shareholder, faces a demanding task to prepare the company for entering of the private capital that will enable a prompt funding of necessary changes and investments. Without such changes of the technical base and supporting of the company business orientation the successful existence of ZSSK on the globalized transport market is not possible. The

shareholder, employees and practically the whole society expects from ZSSK the improvement of quality of services, effectiveness of management and finally also the larger independence on the state budget.

Transformation of railways is a complex process and the foundation of ZSSK was just its first stage. The whole process aims at gaining economic efficiency of railways, objectifying the volume of financial means drawn on the state budget, supporting the competitiveness within the sector, as well as adapting the railway industry to the requirements of the European Union.

The company has undertaken various changes in the company management to improve its performance, competitiveness and to maintain its position on the market. One of the possibilities to improve and change the company management is process analysis. The project of analysis was divided into three phases, of which the preparation phase and the first one have been carried out. The first phase came with a so-called process map as its result, showing various interconnected relations within the company, and dividing all the processes in the company into three categories – managing, main and supporting ones. At the same time the analysis specified several areas needing improvement. The outputs of the second phase of the project should show steps to bring the improvement potentials into practice, various variations of organisational structure and the implementation plan for the introduction of the changes. The following period should demonstrate whether the effort made to change the business orientation of the company, launch new products and new system of business will have impact on better position of ZSSK on the freight market, as well as revenues of the company. The customer orientation together with implementation of a new quality management system of selected products according to ISO standards will eventuate in increase in added value of the services provided by ZSSK to its customers. Certification of selected products in the freight transport represents only the first step towards the total change of the working processes, increase in efficiency of work, an along with introducing the process management, this shall contribute to rationalization of processes and anticipated reduction of workforce.

Subsequently, the possibility to sell a certain part of shares to an investor is considered. The first step is the division of the passenger transport from the freight transport (this step was made on the 1<sup>st</sup> January 2005). Both would be covered under an independent joint-stock company and later some shares of the freight joint-stock company would be sold. The decision on the shares being sold is upon the company shareholder, i.e. the State. The valid law momentarily allows for 49% of shares to be sold. The international tender shall be anticipated in this year.

#### **Discussion and Limitations**

The document aims to provide a very selection of key change approaches, models and associated evidence rather than a comprehensive introduction to change management, its many schools, concepts and techniques, for which alternative resources are readily available. For reasons of length, I also touch only briefly on some important factors bearing on change, such as necessary skills and possible strategies. I offered also a brief introduction of a company where some of the above mentioned theoretical approaches were used. Following periods should therefore demonstrate whether the effort made to change business processes and business orientation of the company will have impact on better position of ZSSK.

## **Conclusions**

A large proportion of the generic change management literature attempts to define concepts, describe how they should be implemented, and detail the benefits of implementation. Empirically based publications are relatively rare and, of those that are available, many describe research that is poorly conducted, or lacking a conceptual framework, appropriate research design, analytical rigour, or independent investigators. However, formalized research evidence is not the only source of knowledge about 'what works'. Slovak managers argue that much of the knowledge about the effectiveness of change management techniques is tacit in nature, yet to be codified and rigorously studied. This suggests that the evidence most practitioners currently use is driven from their own and colleagues' experience.

The successful adoption of a powerful concept, process, method, and/or tool often holds promise of dramatic benefit to an organization. Efforts to realize these benefits, however, often result in frustration and anger from precisely those who should benefit from the adoption.

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# Controlling Function in Strategic Management

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## Abstract

**In recent conditions of turbulent changing environment, strategic management is a key tool leading to sustainable success of the organization. Theory of strategic management offers managerial praxis many techniques and methods. Basically, they are focused in strategy formulation (analytical-syntactical techniques) and strategy implementation. The weakest part of strategic management process is control and this article is devoted to controlling in strategic management.**

## Introduction

In order to be successful, organizations must be strategically aware. They must understand how changes in their competitive environment are unfolding. Organizations have to deal with dynamic and uncertain environments. They should actively look for opportunities to exploit their strategic abilities, adapt and seek improvements in every area of the business, building on awareness and understanding of current strategies and successes. Organizations must be able to act quickly in response to opportunities and barriers.

Strategic management is in this way a highly important element of organizational success. The need to know what the business is about, what it is trying to achieve and which way it is headed, is a very basic requirement determining the effectiveness of every member's contribution. Every successful entrepreneur has this business self-awareness and every successful business seems to have this clarity of vision, even though it does not arise from a formal planning process.[9]

Effective strategic management involves more than just a few easy steps. It requires managers to think strategically, to develop the ability to see things in motion, and to make sense out of a cloudy and uncertain future by seeing the interdependency of key factors. This ability requires more than a passing awareness of significant social, political, legal, economic and technological trends. Managers who think strategically are able to envision their organizations in the context of world trends and events and to spot important interdependencies. They focus on how their organization should act and react to emerging opportunities and barriers.

The distinguishing characteristic of strategic management is its emphasis on strategic decision-making. [6]

*"A strategy is only as good as its ability to provide decision making guidance in a chaotic competitive environment."* [13]

New strategic initiatives often take several years to execute fully and relatively few succeed. Unfortunately, classical control processes have contributed to this situation because they have been designed as feedback systems that detect problems and deviations from planned results only after they have already occurred, and because the standards to which measurements are compared are assumed to be correct or good. Recent conceptual contributors to the strategic control literature have argued for anticipatory feedforward controls that recognize a rapidly changing and uncertain external environment. These new systems are designed to operate on a continuous basis, checking and critically evaluating assumptions, strategies, and results.

### **Strategic Control as a Part of Strategic Management**

Strategic management is the ongoing process of ensuring a competitively superior fit between the organization and its ever-changing environment. Strategic management is the process that defines the organization's mission, scans the environment to ascertain opportunities, then merges this assessment with an evaluation of the organization's strengths and weaknesses to identify an exploitable niche in which the organization will have a competitive advantage. [7]

Thomas L. WHEELLEN, and David J. HUNGER [12] defines strategic management as that set of managerial decisions and actions that determines the long-run performance of a corporation.

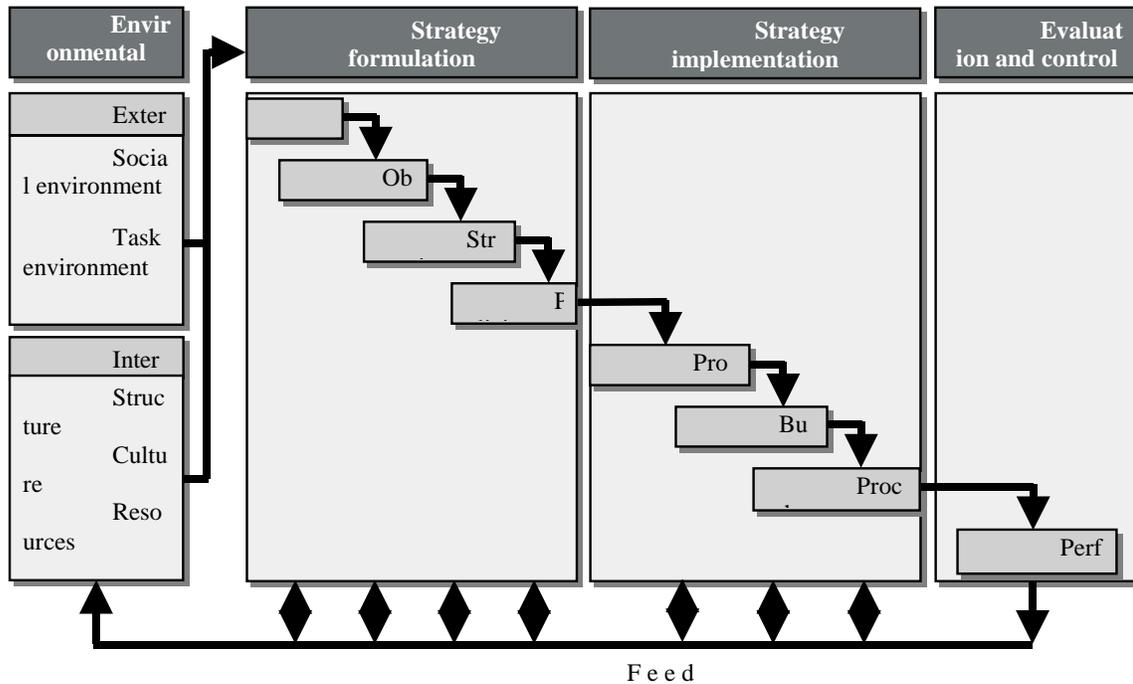


FIG. 1: MODEL OF STRATEGIC MANAGEMENT

Their model includes four basic elements:

1. **Environmental scanning,**
2. **Strategy formulation** (strategic or long-range planning),
3. **Strategy implementation,** and
4. **Evaluation and control.**

Figure 1 shows how these four elements interact. At the corporate level, the strategic management process includes activities that range from environmental scanning to performance evaluation. Management scans both the external environment for opportunities and threats and the internal environment for strengths and weaknesses. The factors that are most important to the corporation's future are referred to as strategic factors and are summarized with the acronym S.W.O.T., standing for Strengths, Weaknesses, Opportunities, and Threats. After identifying these strategic factors, management evaluates their interaction and determines the appropriateness of the corporate mission. The first step in the formulation of strategy is a statement of mission, which leads to a determination of corporate objectives, strategies, and policies. Corporations implement these strategies and policies through programs, budgets, and procedures. Finally, performance evaluation and feedback ensure adequate control of organizational activities.

Control, in the business administration sense, is most often discussed in the context of budgeting. In the control of budgeted expenditures, the focus is usually for a time span of a year or less; quantitative measurements are used to determine whether actual expenditures are exceeding planned spending, the emphasis is on internal operations; and corrective action is often taken after the budget period has elapsed.

But in strategic control, the focal time period usually ranges anywhere from few years to over a decade, qualitative and quantitative measurements are taken, management assesses both internal operations and the external environment; and the process is ongoing, because top management cannot wait for several years to evaluate results.

Strategic control consists of determining the extent to which organization's strategies are successful in attaining its goals and objectives. If the goals and objectives are not being reached as planned, then the intent of control is to modify the organization's strategies and implementation so that the organization's ability to accomplish its goals will be improved.

While the differentiation between operational and strategic planning is customary in theory and practice, the differentiation between strategic and operational control is largely uncommon.[3]

Lorange, Morton, and Ghoshal, in their book on strategic control, identified three types of control. [5]

- *Strategic control* deals with the basic strategic direction of the corporation in terms of its relationship with its environment. It focuses on the organization as a whole and might emphasize long-term measures (one year or more), such as return on investment and changes in shareholder value.
- *Tactical control*, in contrast, deals primarily with carrying out the strategic plan. It emphasizes the implementation of programs and might use medium-range measures (considering six months to a year), such as market share in particular product categories.
- *Operational control* deals with near-term (considering today to six months) corporate activities and focuses on what might be going on now to achieve near- and long-term success.

Strategic controls are intended to steer the company toward its long-term strategic goals. Strategic controls to meet top management's needs to track the strategy as it is being implemented, to detect underlying problems, and to make necessary adjustments. These strategic controls are linked to the assumptions and the key operating requirements necessary for successful strategy implementations. Ever-present forces of change fuel the need for a focus of strategic control.

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According to John A. Pearce II. [8] The control of strategy can be characterized as a form of "steering control". Ordinarily, a good deal of time elapses between the initial implementation of a strategy and achievement of its intended results. During that time, investments are made and numerous projects and actions are undertaken to implement strategy. Also during that time, changes are taking place in both the environmental situation and the company's internal situation. Strategic controls are necessary to steer the firm through these events. They must provide the basis for adapting the firm's actions and directions in implementing its strategy to these developments and changes.

The four basic types of strategic control are (Figure 2):

- Premise control – is assumption testing
- Strategic surveillance - is the open-minded monitoring of the internal and external environments to see if any assumptions you made about your strengths, weaknesses, opportunities, and threats have been violated.
- Implementation control - depends upon your willingness to admit that your assumptions may be inaccurate when subjected to the day-to-day meat grinder test.
- Special alert control - is simply a system designed to monitor your key assumptions that are critical to the success of your strategic plan ..., which assumes that you have identified those key assumptions.

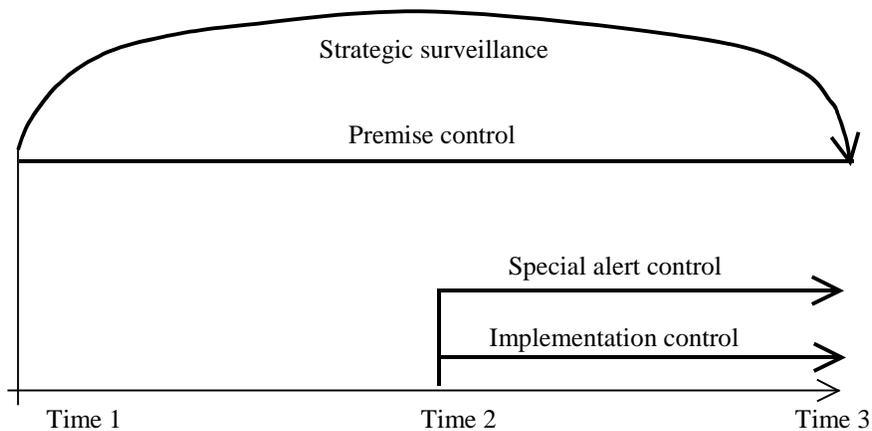


FIG. 2: FOUR BASIC TYPES OF STRATEGIC CONTROLS [8]

**a) Premise Control**

Every strategy is based on certain planning premises – assumption or predictions. Premise control is designed to check systematically and continuously whether the premises on which the strategy is based are still valid. If a vital premise is no longer valid, the strategy may have to be changed. The sooner an invalid premise can be recognized and rejected, the better are the chances that an acceptable shift in the strategy can be devised.

Strategies are often based on numerous premises, some major and some minor, about environmental and industry variables. Tracking all of these premises unnecessarily expensive and time consuming. Therefore, managers must select for tracking premises whose change is likely and would have a major impact on the firm and its strategy.

**b) Implementation Control**

Strategy implementation takes place as series of steps, programs, investments, and moves that cover over an extended period of time. Special programs are undertaken. Functional areas initiate strategy – related activities. Key people are added or reassigned. Recourses are mobilized. In other words, managers implement strategy by converting broad plans into the concrete, incremental actions and results of specific units and individuals.

Implementation control is the type of strategic control that must be exercised as those events unfold. Implementation control is designed to assess whether the overall strategy should be changed in light of the results associated with the incremental actions that implement the overall strategy. Prudential’s updating of cost and revenue projections based on early experiences with regional home offices is an example of implementation control.

Two basic types of implementation control are:

- Monitoring strategic thrusts
- Milestone reviews

**Monitoring strategic thrusts**

As a means of implementing broad strategies, narrow strategic projects are often undertaken – projects that represent part of what needs to be done if the overall strategy is to be accomplished. These strategic thrusts provide managers with information that helps them determine whether the overall strategy is progressing as planned or needs to be adjusted.

Although the utility of strategy thrusts seems readily apparent, it is not always easy to use them for control purposes. It may be difficult to interpret early experience or to evaluate the overall strategy in light of such experience.

One approach is to agree early in the planning process on which thrusts or which phase of thrusts are critical factors in the success of the strategy. Managers responsible for these implementation controls single them out from other activities and observe them frequently. Another approach is to use stop / go assessments that are linked to

a series of meaningful thresholds (time, costs, research and development, success, etc.) associated with particular thrusts.

**Milestone reviews**

Managers often attempt to identify significant milestones that will be reached during the time a strategy is being implemented. These milestones may be critical events, major resource allocations, or simply the passage of a certain amount of time. The milestone reviews that then take place usually involve a full-scale reassessment of the strategy and of the advisability of continuing or refocusing the firm’s direction.

**c) Strategic Surveillance**

By their nature, premise control and implementation control are focused controls; strategic surveillance, however, is unfocused. Strategic surveillance is designed to monitor a broad range of events inside and outside the firm that are likely to affect the course of its strategy. The basic idea behind strategic surveillance is that important yet unanticipated information may be uncovered by a general monitoring of multiple information sources.

**d) Special Alert Control**

Another type of strategic control, really a subset of the other three, is special alert control. A special alert control is the thorough, and often rapid, reconsideration of the firm’s strategy because of a sudden, unexpected event.

All four types of strategic control share common purpose: to assess whether the strategic direction should be altered in light of unfolding events. Strategic controls are designed to continuously and proactively question the basic direction of the strategy. Strategic controls are needed to manage the strategic process effectively.

**Controlling Way of the Control Function**

Controlling is a sub-system of the management, which deliberately puts processed information for preparation of the decision derivation at disposal.

The term “Controlling” underwent a continuous change in its evolution. First, it was only understood in the sense of control, implying a past-oriented view of controlling. This is a consequence of referring to it in its narrowest sense related to the last stage of the co-ordination, planning and control process which is the stage of control. [1]

Although this rather narrow delimitation of the term “Controlling” has been enlarged step by step, the relation to decision and information was missing for a long time. Progress was overdue, especially in connection with the decision-related condensing of information. However, the stage of planning was finally included so it was now possible to integrate deviations from plans into the decision process.[2]

Controlling system contains the information which type of problem in which area of the company must be analyzed and, moreover, which managerial tools and part of information technology are used.

System of controlling regulations doesn’t serve only for control, but much more for prediction. Thereby traditional management control mechanism “feed back” should be developed to mechanism “feed forward“.

TABLE 1: “FEED BACK” AND “FEED FORWARD” ORIENTATION.

Criteria	Managing before occasion	Managing after occasion
<b>Function</b>	Feed forward control	Feed back control
<b>Verification</b>	Input orientation = relation to the future	Output orientation = relation to the past
<b>Execution</b>	Before problem occurrences	After problem occurrences
<b>Influence</b>	Defense against the problem	Liquidation of the problem

Horvath [4] summarizes the functions and the targets of the controlling as follows:

- Controlling function in the co-ordination consists of planning and control as well as the information supply
- The controlling targets consist of the securing and maintenance of the co-ordination, reaction and adoption ability of management, so that these can realize the targets of the enterprise

Strategic controlling supports strategic management in carrying through *strategic planning* and *control*. [10] Therefore, in the framework of the strategic planning process it has got planning, co-ordination, information supply and control tasks which cover the process from the establishing of targets to realization and control. Thus,

Controlling has to provide the adequate instruments, which means that planning and control instruments are evaluated fixed regarding their advantages and disadvantages and are allocated according to their possibilities of employment and to the necessary additions. The task of information supply refers to securing the decision-relevant information supply for the planners. This covers as well the guarantee of the efficient employment of adequate instruments for analysis and prognosis of strategic chances and risks by the controller.

*Strategic planning* is the key link between strategic management and the organization's external environment.[11] Therefore, the main task of the strategic planning process is a careful strategic analysis of the market and the position of the company within that market. Strategic planning is to be understood as a repetitive process, i.e. the determination of singles phases (see Figure 3) only serves the representation of the necessary steps in a meaningful sequence.

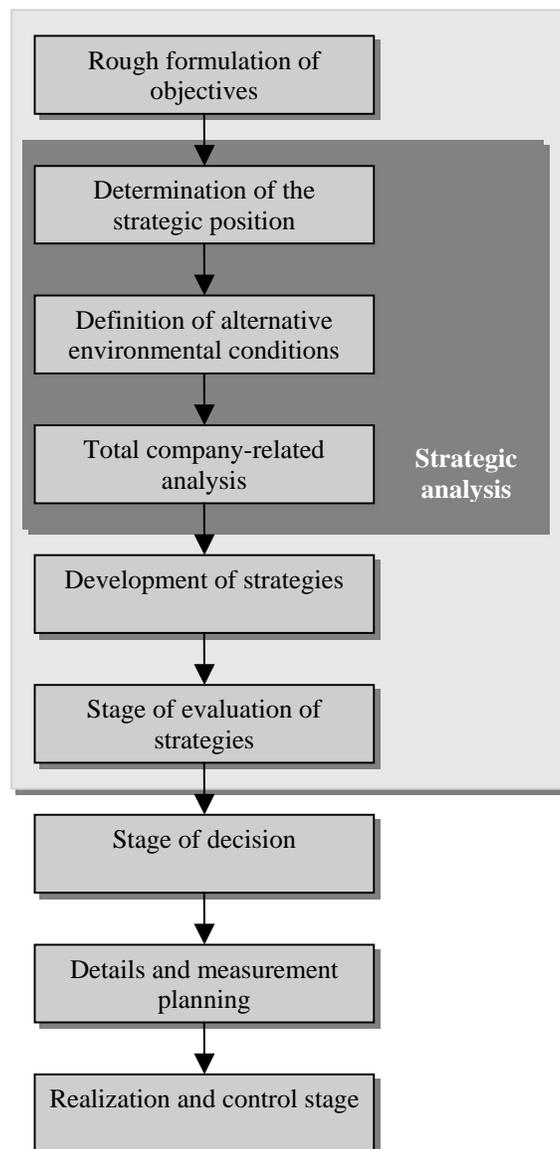


FIG. 3: PHASES OF STRATEGIC PLANNING [10]

Planning strategically means to first roughly formulate the targets giving the principal orientation and afterwards, beginning with the actual planning process, to carefully analyze the external influence factors, i.e. chances and risks, which are to be expected. Such an environment analysis does not only have to orientate towards a total economic growth analysis and, if necessary, the branch- and company-related possibilities of development, but has as well to take into consideration political and social developments. This environmental analysis enables the determination of global/critical success factors as well as profitability limiting key factors. The analysis of external factors must be succeeded by an analysis of internal factors. That means, the analysis of the company-related present and future strength and weaknesses in relation to the competitors on the market. Doing this renders an evaluation of the (relative) internal potential of resources possible.

*Strategic control* is related to the implementation of a strategy. This factor links strategic management to the organization's internal environment because it involves evaluating how well the organization is implementing the strategy. Strategic control has two components, one internal and one external. The internal component involves monitoring resource allocation and organizational operations and suggesting changes needed to implement the strategy better. The external component involves measuring the strategy's success.[11] Therefore, strategic control can be regarded as an instrument for the adaptation of strategic planning to changing environmental conditions.

The control process ensures that the company is achieving what it set out to accomplish. It compares performance with desired results and provides the feedback necessary for management to evaluate results and take corrective action as needed. This process can be viewed as a several steps feedback model, as depicted in Figure 4.

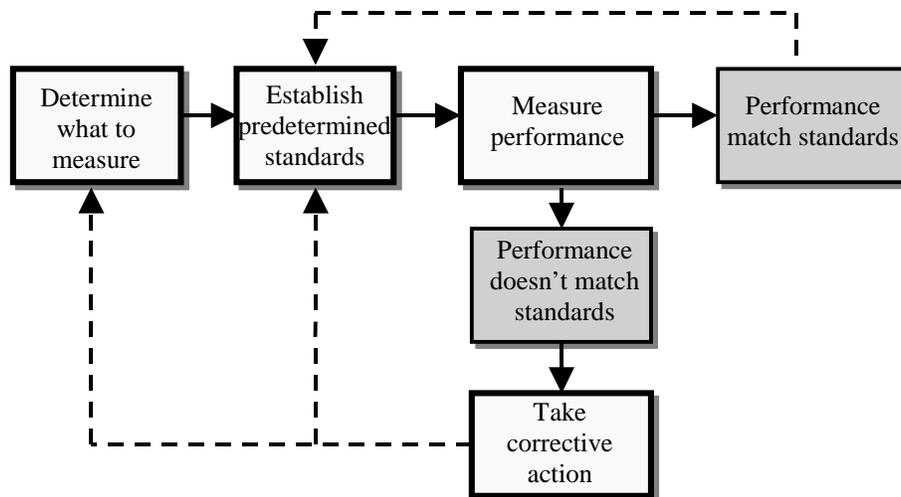


FIG. 4: EVALUATION AND CONTROL PROCESS

First, top management must decide what elements of the environment and of the organization need to be monitored, evaluated and controlled. Then standards must be established with which the actual performance of the organization can be compared. These first two steps will be strongly influenced by the organization's mission, goals, and objectives, which direct management's attention to certain organizational and environmental elements and to the relative importance of particular standards.

Next, management must evaluate the company's actual performance. These evaluations will generally be both qualitative and quantitative.

The performance evaluations will be later compared with the previously established standards.

If performance is in line with the standards or exceed them, then no corrective actions are necessary. However, if performance falls below the standards then management must take corrective action.

## Conclusion

The corporate world is becoming a very different place. Mergers and acquisitions have transformed the landscape. International boundaries are fading in importance as businesses take on a more global perspective. Knowledge of strategic management is essential to effective business performance in a changing environment.

To be able to recognize long-term success-potentials, it is necessary to have prognoses about the future development of specific environmental facts. In order to survive and be efficient firms have to predict their cost, price, and profit in the long run and then formulate their market strategies. The central task of controlling is to critically analyze and evaluate the relevance of its instruments from time to time regarding competition. Such an analysis has to take into consideration the most important internal and external influencing factors according to the company.

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# Empirical Study on Strategic Choices of China Logistics Companies

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## Abstract

The past decade has witnessed rapid development in the logistic industry in China. *Third-Party Logistics (3PL)* service suppliers or logistic companies are playing an increasingly important role in the global economy. This research is an empirical study on strategic choices of the logistics companies in China. Based on a nation-wide survey, it uses Porter's framework to analyze competitive strategy and outsourcing strategies of logistics companies. Also, a comparison is made to find out the difference between local 3PLs and foreign invested service providers. Managerial insights and implications have been generated from this research.

## Introduction

China's logistics sector has undergone four stages of development since 1949 (Luk, 1998). Since the Chinese system "still lies somewhere between socialism and free market capitalism"<sup>i</sup>, factors like unbalanced economy and regional protectionism still stand in the way for rapid development (Jiang 2002a, 2002b).

However with China's huge market and booming economy, local logistics market still enjoys a high growth rate (Mercer, 2002) in the past decade. Against the exponential potential growth (Morgan Stanley, 2001), the trend for outsourcing logistics services (Hong, 2004) will surely make logistics companies plays an ever-important role in the market.

China's WTO accession marks a turning point in the development of China's logistics sector (Powers 2001). By the end of 2004, restrictions for foreign investment on logistics sector including distribution and trucking services have been abolished<sup>ii</sup>. As more foreign firms take bolder strategy to penetrate the local market, competition is bound to be more severe. This research is an empirical study on logistics companies in China. It analyzes logistics company's strategic choices in terms of cost & service. Companies' outsourcing strategy is also reviewed to find out whether non asset-based companies have more privilege over asset-based companies. Finally, results it provide insights and implications for logistics managers and practitioners.

## Literature Review

Third Party Logistics (3PL) or contracting logistics originated in the 1980s. The term is used to refer to those companies that undertake logistics activities outsourced by manufacturing or commercial companies. In 1990s, a ".....3PL services are important trend in logistical management. Estimates vary concerning the magnitude of 3PL, but there is little question that opportunities for these services will continue to grow"<sup>iii</sup>. A 3PL service provider or logistics company is a logistics service provider that carries out activities "on behalf of a shipper and consisting at least management and execution of transportation and warehousing if warehousing is part of process"<sup>iv</sup>. In recent years, 4PL is also named referring companies that integrate and assemble "the resources, capabilities and technology of its own organization and other organizations to design, build and run comprehensive supply-chain solutions."<sup>v</sup> In a word, a 4PL is an integrator that may take advantage of its management skills or technological advancement to win contracts from manufacturers or commercial companies. While the 4PL provider may offer some operational services, the main characteristic is its limited asset provision (Morgan Stanley, 2001; Liu 2001, Zeng2002, Ran2004), which is more like non-asset service providers (Sheriff 1990).

It is not clear when the term 3PL was introduced in China. However, it is well accepted that in the late 1990s, the term becomes a lot of people's concern<sup>vi</sup>. Morgan Stanley (2001) suggested that logistics market in China is in the primitive stage with a very promising future. Jiang (2002) concluded that China is undertaking an evolution in distribution and logistics area. Both foreign firms and domestic firms face similar difficulties like overburdened and underdeveloped physical infrastructure and so on. Li (2002) analyzed the characteristic and current status of Chinese logistics companies. Mercer (2002) found that 3PLs are eager to improve their services. Zhang (2002) indicated that multinational manufacturers and commercial companies prefer to use foreign invested logistics companies. Hong (2004) found out that the great market potential have attracted many foreign logistics companies into the market, thus expanding market share especially on "high-level" services. Findings based on a series of surveys conducted by China Warehousing Association in 1999, 2000, 2001, 2003 seem more convincing. They found out that services provided by 3PLs are not satisfactory in terms of quality and relationship between customers and logistics companies is rather fragile.

However, the above-mentioned studies paid more attention on the demand side, i.e. logistics service users. They failed to provide valuable insights on the characteristics of 3PL service providers or logistics companies. Even less was provided on their competitive behavior. Leahay (1995) "Customer Orientation" and "Dependability" are two most important factors for logistics companies success. Sum and Toe (1999)'s empirical study on competitive advantage of 3PLs surveyed logistics companies in Singapore and concluded that companies that have both service and cost advantages perform best in market. Still we need to find out if those rules apply in China, the world's biggest transitional economy. Furthermore, China's geographic size, complicated business environment and rapid development make it common that logistics companies sub-contract some of their business to locally operated companies (sometimes such companies run only in specific cities or provinces). Together with the development of 4PL, some analysts predicted that companies, which take full advantage of outsourcing strategy, might achieve competitiveness in market (Liu 2001, Zeng2002, Ran2004). Therefore, this research is aimed to find out the relationship between logistics companies' strategic choices and their market performance.

## **Methodology**

To understand logistics companies' business practice in China, a survey was conducted in 2003 to get first hand information. Researchers visited or called managers or chief executives of logistics companies around the country. Samples were chosen on convenient basis. Participants were given a 9-page questionnaire.

Altogether 105 companies responded. Study shows respondents are from 15 provinces and the majority is registered in the coastal areas. Among them, 23 companies (22%) are registered in Beijing, and 20 companies registered in Shanghai (20%). See Figure 1 for the geographic distribution.

In terms of ownership, 69 companies (about 65.7%) are local companies. The rest (34.3%) are foreign companies or joint ventures in China. In 2003, due to the market entry restrictions in logistics sector, foreign firms could only set up offices to handle coordination tasks. As the restriction for market entry is relieved in 2005, branches or subsidiaries will take their place. Evidence shows that many foreign investors of joint ventures prefer to set up wholly owned companies after 2005<sup>vii</sup>. Therefore, this paper will not differentiate joint ventures and foreign owned companies instead they will be referred to as foreign invested companies (FIC).

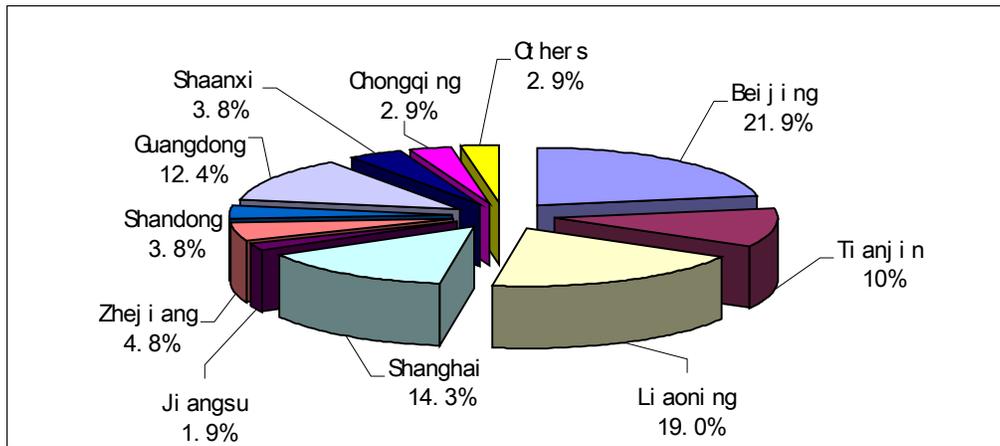


FIG. 1: GEOGRAPHIC DISTRIBUTION OF SAMPLES

Data show that small and medium sized companies are main players of the market. As many foreign firms are waiting for 2005 to expand their work force, this paper considers only local firms. Among them, about 50.7% are small companies with less than 200 employees. Less than 16% are large companies with more than 1,000 employees. This makes the market rather competitive.

## Results and Analysis

### Current Market Status

The survey shows that “logistics” or “third party logistics services” is not clearly understood among practitioners. A lot of logistics companies still provide traditional logistics services, either characterized by functional transportation and warehousing services or transaction-based services.

About 40% of the companies surveyed claimed to provide function-based warehousing and transportation service. About 9% of the companies mentioned that they might offer warehousing and related value-added services. Only 46% of the companies claimed to provide “Integrated Logistics Services” which involved transportation, warehousing and packing services. Even for the Integrated Service providers, the service might not be a one-stop service. However, the trend towards outsourcing is obvious. “Compared to the data collected in Survey 2001, the proportion of manufacturers and commercial companies which outsourced logistics services increased distinctly.”<sup>viii</sup>

In terms of relationship with customers, data show that only about 10% of the companies have a 3-year or longer contracting term with the customers. More than 53% of logistics companies have short-term (less than 1 year) relationship with their clients. Not only that, Figure 2 shows that about half of foreign-invested companies have 70% or more sales accomplished with Term-Contract while only 35% local companies fall in this group. On the other hand, 17% of local firms that have 30% or less sales achieved by Term-Contract while the figure for foreign invested firms is only 6%. It implies that local firms are more likely to rely on transaction-based services. Reasons behind this might be:

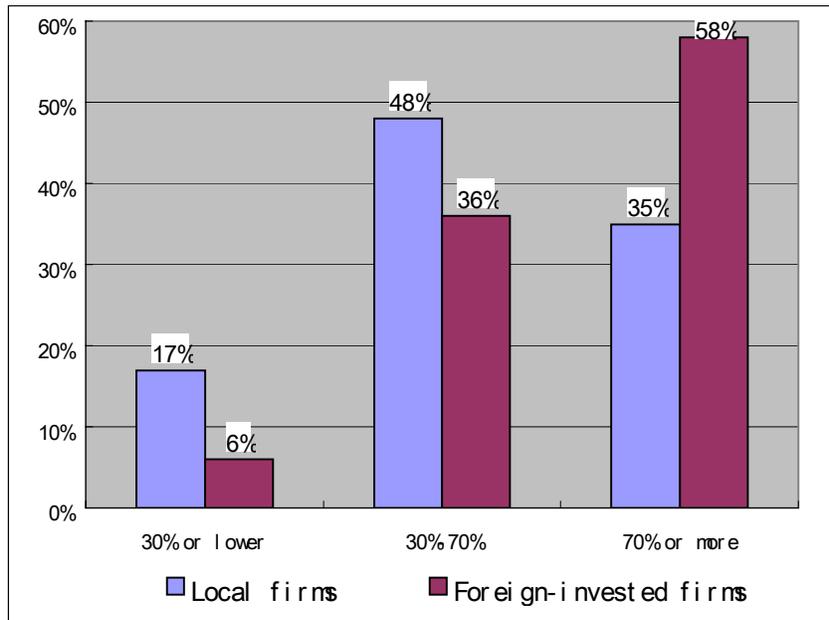


FIG. 2: SALES PROPORTION ACCOMPLISHED WITH TERM CONTRACT

- Local logistic companies provide more traditional logistics services or basic logistics service, i.e. warehousing or point-to-point transportation services. Those services are more like “normal goods” that can be easily bought from the market. Then, manufacturers or commercial companies prefer to keep multiple suppliers for more competitive prices and efficient service. In order to provide more value-added logistic services, local logistic companies need to expand their functions (or services). Maintaining established partner relationship will also improve service level.
- Services offered by local firms seem less differentiated. This is due to homogeneous suppliers and low substitution cost. Then customers will take advantage of short contracting term to pressure the logistic companies to lower prices.
- Competitive local market. As mentioned before, the market is congested with small and medium sized players. This leads to the most perfect competitive environment. 41% of the respondents claim to have more than 10 main competitors. About 29% of firms have more than 20 main competitors. Foreign invested companies which provide global service packages tend to be more competitive penetrate the market by extending overseas services, they are more likely to cover local service with global service packages.
- Since 1980s, more and more companies are entering China to leverage the country’s cheap labor costs and establish long-term competitive advantages in the world’s largest potential market. To cope with supply chain issues, they usually use cluster approach or use non-Chinese 3PLs (Jiang 2002a). Multinational companies prefer to use logistics companies from the same country because of similar cultures and close relationship developed in their home country (Zhang, 2002). Local companies originally are used to offer services on transaction-basis. However, recently most local logistics firms have been gradually transformed from function specific transportation or warehousing companies to logistics service providers. However, both the companies and their customers need time to develop a new relationship, from transaction based relationship to partnership based relationship. Therefore, foreign invested logistics companies have an edge over local firms to serve the market on relationship-basis.

### Customers' Attitude Towards Good Logistics Companies

When asked what are important for manufacturers or commercial companies to choose 3PL service suppliers, respondents come with rather consistent notion. Table 1 shows that good reputation, rich experiences and sound quality control system are listed as customers' prime concerns. Though logistic market in China is still in its primitive stage, the ability to develop new service or provide more value-added service is not quite important in the eyes of customers. It implies that customers in China are quite cautious about outsourcing logistic activities to outside suppliers. Logistic companies have to prove that they are trustworthy before they could get any businesses. Thus, established companies especially those big giants, mainly government-owned companies and multi-nation companies, which have been in business for decades, have more chance to expand the market share. It may also helps to explain why established shipping companies like COSCO or freight forwarders like SINOTRANS may easily become top logistic service providers around China. Meanwhile new incomers in particularly the private companies are facing natural barriers.

TABLE 1: FACTORS FOR CHOOSING LOGISTICS SERVICE PROVIDERS

Focus of customers' need	Mean**	Std Deviation	Sig. (2-tailed)
Have high prestige	6.27	1.05	.000
Be rich in operating experiences	6.07	1.16	.000
Have sound quality control system	6.06	1.02	.000
Provide a wide range of products/services	5.62	1.43	.000
Be flexible to adapt to customers' needs	5.51	1.26	.000
Have good relationship with government	5.47	1.42	.000
Provide more value-added services	5.38	1.48	.000
Be able to develop customized product/service	5.23	1.48	.000
Introduce new products/services rapidly	4.84	1.58	.000

\*: The data is processed by SPSS 10.0

\*\* : Measure on 7-point Likert scale. "7" for very important.

Customized service and the ability to provide more value added service are not regarded as the very important factors, which shows that the demand side is also at the primary stage. The demand for basic logistics service is still dominating the market.

Come to the logistics customer service, companies listed Be Accurate in Filling Orders, Respond Quickly to Customers' Inquiry, Meet With Promised Due Date, and Provide Tracking Service as the most important measurement for customer services.

### Logistics Companies' Operating Focus

In terms operation focus, respondents again show unanimously opinions. They all try to focus on providing more reliable, efficient service with the help of updated IT system (See Table 2). One thing interesting is though no one regards developing new service are customers' top concern, it is still listed as one of operation focus. One reason is more and more logistic companies try to stand out competition by differentiating services. Therefore, they are eager to improve the ability to develop new services and customized offerings. But because experiences are more persuasive than attractive promotional message, 3PL service providers are reluctant to increase payment on advertising. Meanwhile, responding to China's immature market, few 3PLs got the chance to be involved in more complicated services like inventory control. Then, they pay little attention on reducing inventories. Experts predicted that market would expand rapidly in the near future still incumbents are not willing to increase capacity. In times of fierce competition and oversupplied basic service market a lot of companies choose to outsource to sub-contractors to earn flexibility (see Outsourcing Strategy). Form strategic alliances and improve the capability to provide customized services are not top operational emphasis for logistics companies implies that market competition is still focus on operational efficiency. Partnership or long-term relationship is not valued too high. It confirms the conclusion that logistics companies compete against each other on transaction-basis rather than relationship focused.

TABLE 2: OPERATION FOCUS OF LOGISTICS COMPANIES

Operation focus of logistic companies	Mean**	Std Deviation	Sig. (2-tailed)
Increase ability to deliver orders on time	5.86	1.21	.000
Increase operational efficiency	5.75	1.26	.000
Improve information technology	5.49	1.27	.000
Develop new service	5.45	1.48	.000
Upgrade skills/training of workers	5.37	1.46	.000
Using better transportation vehicles	5.24	1.39	.000
Keep price competitive	5.11	1.38	.000
Improve capability to customized services/products	5.06	1.62	.000
Form strategic alliances	5.05	1.39	.000
Obtain ISO9000 certification	4.95	1.95	.000
Increase automation and mechanization	4.74	1.47	.000
Increase ability to reduce delivery lead time	4.67	1.49	.000
Introduce new services quickly	4.56	1.56	.000
Increase capacity	4.30	1.67	.000
Reduce inventory levels	4.18	1.73	.000
Increase promotion/advertising	3.90	1.89	.000

\*: The data is processed by SPSS 10.0

\*\* : Measure on 7-point Likert scale. "7" for very important.

#### Prospective of Future Market

Thanks to the confidence on China economic development, almost all respondents show strongly positive attitudes toward China logistics market. Foreign invested companies, in particular, expected to get more market share once Chinese government grant them full access to local market. Local firms are expecting that as more and more manufactures and commercial companies outsource their logistics activities the overall market size will increase significantly. Some local firms on the other hand are expecting market environment will improve as the government improve legal and physical infrastructure. Only a few local firms worried that with more foreign invested companies enter Chinese market, competition will become even more fury. Small companies with small fleet and poor management skills would hardly survive.

Except economic development, which is obviously the most important factors, data also shows that 3PL service providers regard Higher Expectation from Customers, Lack of Qualified Personnel and Increased Globalization will have important impact on market development (See Figure 3). It is disappointing that logistics companies regard Increased Environmental Concerns is the least import factor affecting the market. Evidence shows that less attention on environmental issues and lack of stern control on illegal activities have resulted in dangerous goods leakages or other environmental damaging cases. Some improvement has to be done in this regard.

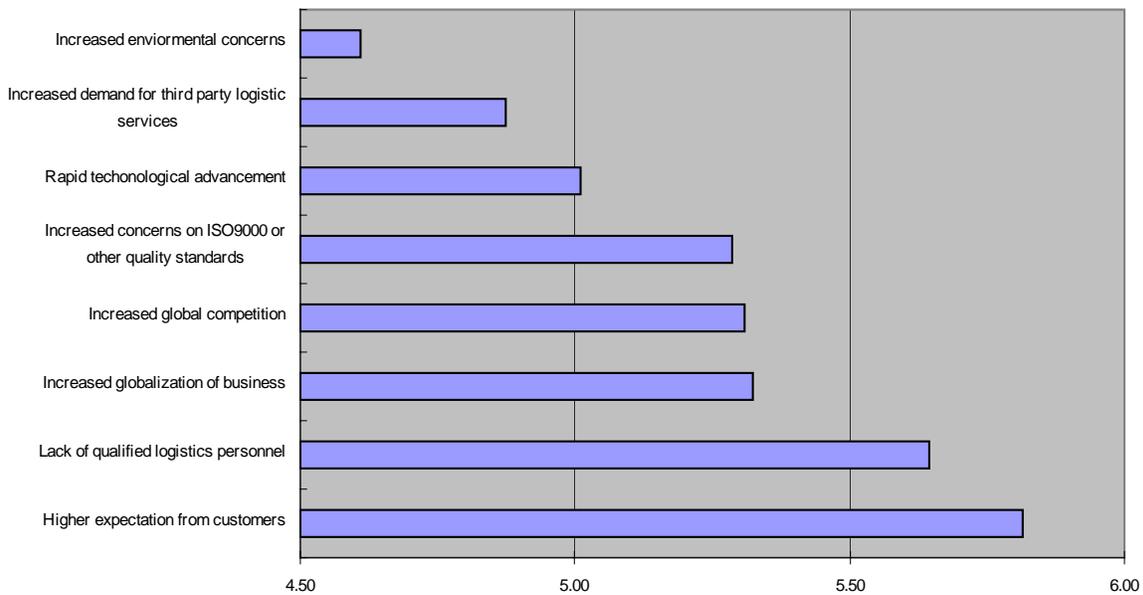


FIG. 3: FACTORS TO IMPACT FUTURE LOGISTICS MARKET

### Competitive Strategy of Logistics Companies

It is known that three basic competitive strategies are used to update a firm's competitive status. They are cost leadership, differentiation and focus strategy (Porter, 1980). Following the method in White (1986) and other empirical studies, Sum(1999) used Porter's typology and classified the respondents into four generic strategic types, named pure cost leadership strategy, pure differentiation strategy, simultaneous cost and differentiation strategy and no clear strategy. This research applied the same methodology. In the survey respondents are required to evaluate its advantage over its main competitors in terms of costs and services (7-distance Likert Scale). Based on the factors on choosing 3PL service provider, the research averaged service reliability, accuracy of invoices, respond speed to customers' inquire as service advantages. Then the respondents are classified into four groups, i.e. Group I (companies with cost advantage and service advantage or pursuing cost leadership strategy and differentiation strategy simultaneously), Group II (companies with service advantage or pursuing differentiation strategy), Group IV (companies with cost advantage or pursuing cost leadership strategy) and Group III (companies with no obvious advantages or no clear competitive strategy). Figure 4 shows the grouping results.

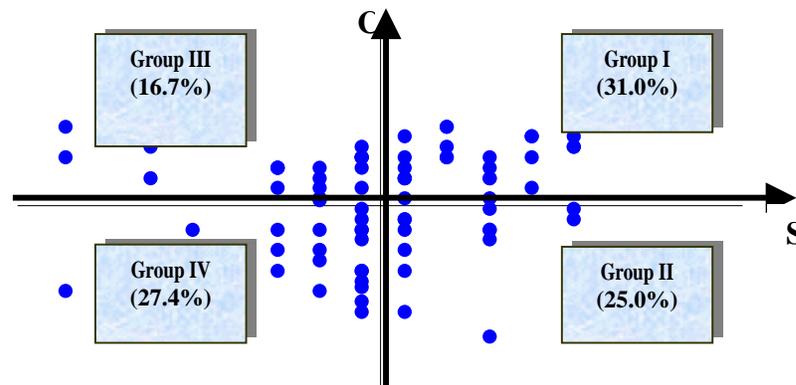


FIG. 4: GROUPING OF LOGISTICS COMPANIES' COMPETITIVE STRATEGY

The questionnaire also required respondents to evaluate its performance over its main competitors. To make the results more reliable, five indexes were used for measuring logistics companies' performance in the past two years. They are overall financial performance, average growth in annual sales, average growth in market shares, percentage in return of sales and percentage in return of assets. Further study shows that performance difference of different groups is significant (See Table 3). Companies apply both cost leadership and differentiation strategy (Group I) tends to win the completion followed by companies with differentiation strategy (Group 2). Performance of the rest two groups is not quite clear. Companies pursue pure cost leadership strategy (Group III) performs even worse than companies without clear competitive strategy (Group IV) in terms of Overall Financial Performance, Average Growth in Annual Sales. However, Group III seems work better in increasing market share, return of sales and return of assets.

TABLE 3: BUSINESS PERFORMANCES AND LOGISTICS COMPANIES' COMPETITIVE STRATEGY

Performance	Mean (Std Deviation)				K-W Test Sig.
	Group I	Group II	Group III	Group IV	
Overall financial performance	5.69(0.97)	5.26(1.15)	4.08(1.24)	4.14(1.56)	.000
Average growth in annual sales	5.58(1.10)	4.95(1.07)	4.29(1.07)	4.70(1.40)	.006
Average growth in market share	5.46(1.03)	4.76(1.09)	4.29(0.99)	4.26(1.68)	.005
% growth in return of sales	5.76(1.09)	4.70(0.92)	4.29(1.14)	4.13(1.39)	.000
% growth in return of assets	5.68(1.03)	4.70(1.03)	4.29(1.07)	4.09(1.41)	.000

	Competitive Strategy				Total
	Group I	Group II	Group III	Group IV	
Local Firms	20	15	9	24	68
Foreign invested companies	12	11	8	5	36
Total	32	26	17	29	104

Pearson Chi Square=5.16, p>0.05

Furthermore, data shows that no significant difference exists between local companies and foreign invested ones in pursuing competitive strategies.

#### Outsourcing Strategy of Logistics Companies

The survey results also show that 72 (about 69%) respondents have outsourced operations to the outside suppliers including 44 local firms (about 64%) and 28 foreign invested companies (about 78). Those subcontractors may act as contract carriers hiring real carriers to deliver goods or contract warehouses to provide extra warehousing or

distribution services at the rush season. Among them 11% have subcontractors achieved more than 70% of total sales; 27% companies have subcontractors achieved 30-70% total sales.

As to the reasons most companies find that subcontractors may provide same service at a lower cost. About one fourth companies use outside suppliers to supplement inadequate capacity. 7% local firms, 25% foreign invested companies offer a wider variety of services with the help of outside suppliers. Another 17% local firms and 20% foreign invested ones use sub-contractor to extend their service to cover more geographic areas (See Figure 5). Besides some practitioner suggested that another reason for foreign firms applying outsourcing strategy is they are not legally allowed to operate China in year 2003 due to market entry restrictions.

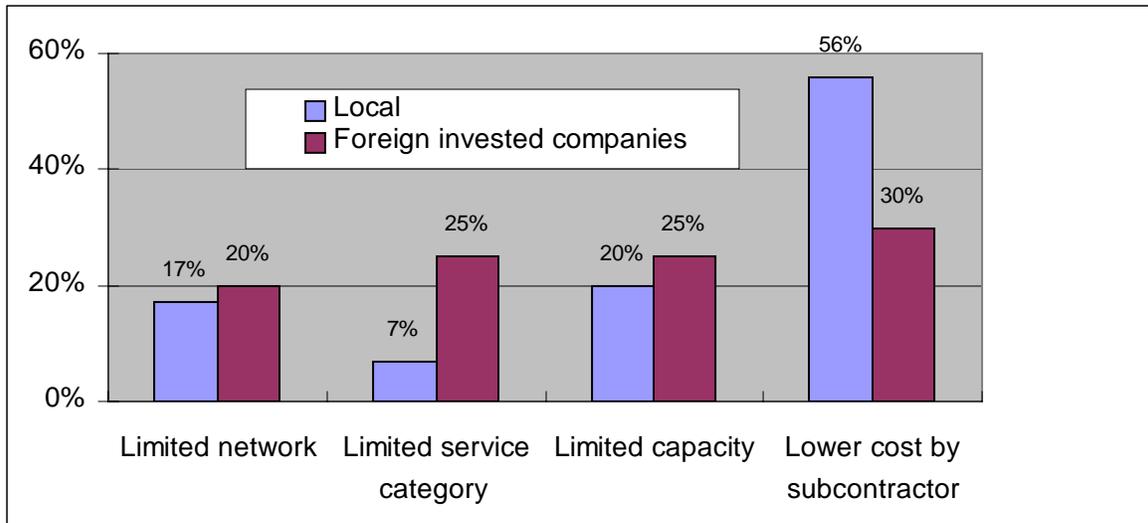


FIG. 5: REASONS FOR SUBCONTRACT LOGISTICS OPERATIONS

Obviously Fig. 5 shows that most companies outsource logistics operations to subcontractors to achieve cost advantages. To find relationship between outsourcing strategy and business performance we classified companies that sub-contracted 30% or less annual sales as Group A, while companies that sub-contracted 30-70% annual sales and 70% annual sales or more as Group B and C respectively. Those three groups correspond to companies that compete on assets-basis, mixed-basis and non-assets basis. Table 4 shows that K-W test implies that business performance between various groups are not significantly different or there is no significant relation between logistics companies' outsourcing strategy and their market performance. More than that, companies with non-assets basis even suffered from worst average market performance in terms of Percentage Growth in Return of Sales. Outsourcing strategy may help companies to focus on core business and reduce investment and cost (Crum and Allen, 1997; Leb and Miller, 2002). In logistics sector, outsourcing strategy may result in operational flexibility and high efficiency because logistics companies need not be limited to their own capacity and network coverage. However, high coordination costs, unstable operation performance are hard to be avoided. Therefore, in the long run customers will be satisfied.

TABLE 4: BUSINESS PERFORMANCES AND LOGISTICS COMPANIES' OUTSOURCING STRATEGY

Performance	Mean (Std Deviation)			K-W Test Sig.
	Less than 30%	30-70%	More than 70%	
Overall financial performance	5.67(0.58)	5.19(1.08)	5.06(1.39)	.619
Average growth in annual sales	5.50(0.58)	5.23(1.02)	5.17(1.04)	.803
Average growth in market share	5.50(1.29)	5.00(0.98)	4.72(1.41)	.593
% growth in return of sales	4.75(0.96)	5.00(1.07)	5.00(1.54)	.867
% growth in return of assets	5.25(1.26)	4.77(1.07)	4.94(1.48)	.678

	Outsourcing Strategy			Total
	30% or under	30-70%	70% or more	
Local Firms	4	22	18	44
FIC	1	12	15	28
Total	5	34	33	72

Pearson Chi Square=1.534, p>0.05

Finally, this research tried to find out if local logistic companies have different outsourcing strategy over the foreign invested companies. Cross-Tab analysis shows that the difference is not significant.

## Conclusions and Implications

In the last decade, 3PL has become trend both in global and China market. Logistics companies have been played an ever-important role in economy. Based on a nation-wide survey this research is attempting to investigate logistics market from a supplier's perspective. Right now China logistics market are congested with small and medium sized players. Fierce competition is the primary characteristic of the market. As market entry restrictions on foreign firms will be abolished in Year 2005, more foreign investment will be doomed in. The competition will surely become more severe.

Logistics market in China is of its primary stage. Positive perspective on future development offers a good market potential. However, a lot of logistics companies still compete on transaction basis instead of relationship basis. In future, basic logistics services are substituted by integrated one-stop modern 3PL services. Logistics companies especially local companies need to differentiate service package and improve quality of service to meet customer's requirements.

Because of geographic coverage, inadequate capacity and inefficiency, majority firms outsourced its operation to subcontractors. Outsourcing strategy helps companies break through its own capacity restrictions, enrich its offerings. At the mean time, coordination cost and lack of control also results in some uncertainties. Then, companies with outsourcing strategy are not believed to end with competitive advantages.

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# Evaluating the Practicality of a Crisis Management Plan

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## Abstract

**This paper presents a discussion of six criteria for assessing the practical usefulness of a Crisis Management Plan (CMP). It suggests that confirming the practical value of a CMP through a systematic approach can aid in reinforcing the legitimacy of crisis planning and improving the chance of implementation success.**

## Introduction

The world is becoming an increasingly uncertain and dangerous place. With the occurrence of natural disasters and human-induced tragedies on the rise, organizations are paying more attention to crisis management than ever before. A growing number of managers have started to implement a formal process of crisis planning to deal with possible negative events that could threaten the survival and future development of their companies. The time and effort invested in this process typically lead to the formulation of a Crisis Management Plan (CMP), which is a written document detailing a series of steps to be taken in response to a crisis. Admittedly, from the standpoint of organizational crisis-preparedness, having a CMP in place is better than none at all. However, there is no guarantee that the mere existence of a CMP will make a company 100-percent safe from crisis. The bottom line is that any crisis planning should be pursued for a practical purpose, which is to enable a company to cope with, avert, or better still, prevent a crisis. For a CMP to perform its intended function, it must actually serve such a practical purpose, or at least be judged to be potentially capable of producing the benefits of crisis detection, diffusion, reduction, and avoidance. Thus the practicality issue is of critical importance in assessing the usefulness of organizational crisis planning. In this paper, six criteria are proposed for evaluating the practicality of a CMP. The essence of these six criteria is best understood by focusing on six key questions, which will be discussed in the following sections.

## Question # 1: Is the CMP Actionably Executable?

Planning is a fundamental managerial function that determines in advance what course of action to take if and when a significant event occurs. Organizational crisis planning is no exception. A CMP is not a symbolic piece of document, and should never be regarded as such. It must have true functional value to be worth its while. In other words, a practically useful CMP is expected to provide concrete, specific, and clear-cut steps for managers to follow within the framework of a carefully and rigorously selected number of crisis scenarios. It is important to remember that no CMPs can account for all crises. Although it has been suggested that organizations must prepare for at least one crisis in each crisis type (i.e., economic, informational, physical, human resource, reputational, psychopathic acts, and natural disasters) according to one school of thought [5, pp.60-61], in reality managers may find it necessary to plan for only those crises that are more likely to hit their organizations, depending on the particular nature of the business activities involved and the results of sufficient vulnerability analysis. A CMP that is excessive in its coverage of different crises suffers from a lack of focus, and may prove to be less helpful in giving managers the kind of policy guidelines that they genuinely need in the face of a crisis. What is most important is that these guidelines are stated in clear, unambiguous terms regarding what emergency response action should be taken and what alternative resources can be utilized. Group reviews, table-top exercises, and simulation exercises are, in general, excellent tools for testing whether a CMP is actionably executable. Action always speaks louder than

words. A CMP that fails to allow swift and appropriate action to be carried out to deal with a crisis will not help any organization. Organizational crisis planning must be geared toward resolving real crisis problems and avoid creating cosmetic documents that give no impetus to managerial action.

### **Question # 2: Is the CMP Productively Verifiable?**

Practical crisis planning is a purposeful activity aimed at generating verifiable results. The implementation of a CMP is expected to produce a desired level of performance consistent with the corporate objectives of crisis prevention, mitigation, and recovery. A productively verifiable CMP must provide a system of measuring the success or failure in the accomplishment of these three objectives. Whatever the system, the meaning of success or failure needs to be clearly delineated. Measuring the success or failure of crisis prevention is often more straightforward compared to crisis mitigation and recovery. A firm either succeeds or fails in preventing a crisis. The result is dichotomous. However, performance in crisis mitigation and recovery can be achieved in varying degrees. For example, as observed by Pearson and Clair [6, p.68] three possible performance outcomes may be associated with business resumption as part of crisis recovery: (1) failure outcomes – all organization operations are shutdown/downtime is lost in bringing organization back into operation; (2) midground outcomes – areas of operation most affected by crisis are closed temporarily/functional downtime is minimal with little effect on product or service; and (3) success outcomes – business is maintained as usual during and after the crisis/there is no loss of product or service delivery.

When formulating a CMP, a firm can certainly follow this three-outcome approach in devising a measure of the success or failure of each critical activity in relation to a given crisis management goal. It is of course up to the firm to widen the range of possible outcomes (e.g., five instead of three possible levels of outcomes) for a more comprehensive measurement. Generally speaking, other things being equal, the more comprehensive the measurement of success/failure outcomes is the more productively verifiable and therefore more practically useful is the CMP.

### **Question # 3: Is the CMP Economically Feasible?**

No effective CMP can be implemented without a sufficient amount of resource support. Physical, financial, human, and technological resources are all needed to carry out a firm's planned response actions in the event of a crisis. Dealing with a crisis is in many ways like fighting a war. A war cannot be won unless the war plan is supported with the necessary equipment, manpower, and other essential resources. Likewise, a crisis cannot be overcome unless enough resources are made available to facilitate the implementation of the CMP. Hence, to be practically useful, all CMPs must meet the test of economic feasibility, which can be assessed through a review of [3, p.25]:

1. Known resources available at each site;
2. Equipment and other resource needs, and lists of where the resources can be obtained;
3. Emergency systems for procurement, delivery, and replacement of supplies and material;
4. Other available personnel, equipment, or materials provided through mutual aid agreements and contractor agreements established prior to an incident.

Availability of financial resources is especially important when a firm prepares for certain types of crisis such as a product recall that may ultimately necessitate making compensatory payments to customers who are victims of the product defect. The firm's CMP must provide a designated source of contingent reserve funds to address possible product liability issues. Back-up resources, whether they be machines, tools, personnel, facilities, money, or computer software's, are required if a firm relies heavily on a redundancy approach in crisis planning. This approach often proves to be quite expensive, which explains why the economic feasibility criterion must not be overlooked.

#### **Question # 4: Is the CMP Intra-socio-culturally Acceptable?**

Within every company, there is an organizational culture that functions as sort of a glue that bonds organizational members together. In an organizational setting, culture means the totality of shared beliefs and assumptions. It gives meaning to and guides work behavior. Cultural norms refer to “the way we do things here” and often act as a powerful force that defines the direction and influences the performance of team efforts, including those of a Crisis Management Team (CMT). Clearly, successful implementation of a CMP hinges on the formation of an effective CMT. In companies that practice a more participative management approach, there may be an organization-wide effort to involve most or all employees in the process of crisis management. Managers in charge of these companies will need to pay special attention to making sure that the policy guidelines and response action steps provided in the CMP do not contain elements that either directly or indirectly works against organizational values, or more specifically cultural norms. Most importantly, care should be exercised in selecting CMT members who not only have the knowledge and skills to do their jobs but also hold positive attitudes toward the risk management philosophy behind the CMP.

Pearson and Mitroff [7] have identified thirty-two faulty cultural rationalizations that can have a negative impact on the effectiveness of a CMT. One example of faulty cultural rationalizations is the belief that “crisis management or crisis prevention is a luxury” [7, p.86]. A firm characterized by a prevailing belief such as this among its employees is unlikely to succeed in developing an implementable or enforceable CMP until its organizational culture becomes more aligned with the notion that “crisis management or crisis prevention is a not a luxury, but a necessity to secure the future of a company.”

#### **Question # 5: Is the CMP Legally Defensible?**

One reality faced by managers in running their companies in a rule-of-law society is the regulatory environment and the legal bounds within which management policies are implemented. It is true that a CMP is largely an internal management tool. Nevertheless, like any other management tool, it may have legal consequences as long as there is a people-related factor involved. Customers and employees are people and their human rights as individuals must be respected and taken into account when introducing a new set of crisis management policies.

Privacy rights issues can plunge a company into legal trouble if not handled properly. Since the 9-11 terrorist attacks and in light of an increasing incidence rate of workplace violence in recent years, more companies have begun to include additional security measures in their CMPs. Apart from using the more conventional methods of security enhancement like reference checks and drug testing on employees, some companies have now turned to biometric technologies in an attempt to boost security. Both customers and employees can be affected by this type of emerging technologies. According to one expert, biometrics consists of seven categories: fingerprint verification, hand geometry, voice verification, retinal scanning, iris scanning, signature verification, and facial recognition. He points out the intrusive nature of biometrics and cautions that even the International Biometric Industry Association (IBIA) “advocates the adoption of appropriate managerial and technical controls to protect the confidentiality and integrity of databases containing biometric data” [4, pp.28-30]. Fitzpatrick [2], a legal scholar, believes that crisis planning is not just about formulating a written plan of response action. Companies must seek the assistance of their legal counsels to institute a compliance program to keep them from getting caught in legal traps.

#### **Question # 6: Is the CMP Morally Justifiable?**

Good ethics is good business. Besides being law-abiding corporate citizens, morally responsible companies take the matter of business ethics seriously. They try to earn the trust of their employees and customers by treating them with honesty, even-handedness, and openness. They compete with their competitors without resorting to dirty tricks or deception. Every company has the legitimate right to construct a CMP to protect its assets, tangible or intangible. But from the moral point of view, it is not an unconditional (albeit legal) right that gives the company complete

freedom to do anything in any way it wants. A morally justifiable CMP is always built on the basis of sound principles of ethical conduct. Three codes of ethics, proposed by Barton [1, p.92], may be considered for judging the moral justifiability of a given CMP. They are stated as follows:

1. Management will honestly convey pertinent facts in a timely manner to key shareholders, including customers, employees and the news media, even when the news is not favorable.
2. The confidentiality of key persons will be protected when that is both appropriate and needed. However, pertinent names will be released after local authorities and victims' families have been notified.
3. Shareholders have a right to know whether the company is insured against losses from the incident or whether the company may have to use internal reserves to cover major expenses.

In times of crisis, a company needs all the help it can get from both its internal and external stakeholders. A morally justifiable CMP has the added advantage of projecting good corporate image, which can serve as a practically useful means of gaining wider support from customers, suppliers, employees, investors, and trade associations.

## Final Remarks

The primary purpose of this paper is to suggest six criteria against which the practical usefulness of a CMP can be gauged. For the sake of conciseness and easy understanding, the six criteria are summarized in six key questions. The first three questions pertain to administrative efficiency, performance measurability, and resource adequacy. The fourth question is concerned with the assessment of compatibility with organizational culture while the last two questions address the significance of legal and ethical compliance. Answers to these six key questions can go a long way toward helping a company determine the practical value of its CMP. Confirming the practical value of a CMP through a systematic approach aids in reinforcing the legitimacy of crisis planning and improving the chance of implementation success.

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# Global Mindset Development for Chinese Managers: An Exploratory Study of Competency Linkages

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## Abstract

The pressures of economic globalization are compelling Chinese organizations to rethink their strategies and reshape their structures, systems and processes, especially after China's joining the World Trade Organization. As Chinese organizations strive to gain a competitive advantage in global markets, there is a growing emphasis on human resource development and the importance on the cultivation of a global mindset. A number of studies have emphasised on micro level global reform and competency building through global mindset development which enable managers to function effectively in the complex global economic environment. This exploratory study with 27 Chinese managers empirically tests a conceptual framework and provides support for some of the competencies and values believed to be associated with the evolution of a managerial global mindset.

## Introduction

Globalization is compelling entities to intensify investment in participant mental capacity. In spite of the traditionally acknowledged importance of the desirability of skill acquisition through investment in education and training, the romanticism of leadership, effective management of resources, and other relevant work related attributes (Dougherty, 1999) there is also considerable evidence that remarkable economic achievements have been underpinned by engaging the disadvantaged (i.e., low paid, low skilled, socially marginalized) in what has been termed as a low cost strategy (Gregory 2000). Nevertheless, in contemporary industrial society, which enjoys developing communication technologies, knowledge is regarded as one of the major company assets for increasing competitiveness and improving overall efficiency of labor. Moreover, the sharing of global opportunities, such as membership to the World Trade Organization (WTO), now enjoyed by almost 150 countries; General Agreement of Tariffs and Trade (GATT), which promotes free and fair trade; or receiving financial assistance from the International Monetary Fund (IMF) or the World Bank (WB), is challenging nations and consortiums to combine economic efficiency with social equity. This prominent focus is mitigated by membership to these eminent bodies, that in turn not only provides access to growing world markets and an insurance against unilateralism, but obliges participants to engage in acceptable, sustainable business practices. For instance, reducing levels of inequalities (i.e., income gap, differences in national GDP), improving levels of transparency in business engagements, promoting anti dumping to avoid injury to local industry, or progressing economic and social development without compromising sustainability are within a range of actions that can have far reaching impacts on global trade. Clearly, these are neither traditional not well known tasks, and consequently, will call for new arrangements between capital, technology and work cadres. The newer strategic orientations will focus an emphasis on different competencies in innovation, risk taking and problem solving, and addressing these formidable challenges will require a renaissance in managerial mindsets.

Identification of the constituent elements of a managerial global mindset has attracted considerable attention. For example, Kao, Sinha and Wilpert (1999) have rejected a notion economic and industrial development is achievable by endorsement of Western management, but rather by work practices and institutional frameworks that blend traditional social values with emergent technologies. This is the divergent viewpoint that argues managerial values will be substantially different between countries despite pervading homogenizing economic ideology. This premise is partially supported by Wong (1985), Hofstede (1991), and Redding (1995) when they claim the successful form of overseas Chinese capitalism in the Asia Pacific is grounded in societal culture, and particularly Confucianism. Indeed, Confucian values are frequently exhibited as levels of paternalism and familism as well as the structure and operations of Chinese family businesses. Nevertheless, a paradox, and especially for Chinese organizations, is that since the Asian financial meltdown of 1997 arguments about the causes for the crisis have embraced claims that bad governance was underscored by

ideals of centralized decision making, a paternalistic organizational climate, priority to relatives or fellow villages, or preferential recruitment and promotion to kinsmen (nepotism). Yet these were the cornerstone of Chinese entrepreneurship before the monetary crisis. Others (Dirlik, 1996; Kosaka, 1990; Seagrave, 1997) have proposed the recent economic relationships of the east and south east Asian communities has roots in globalization. The general contention is that Chinese diaspora created the opportunity for Chinese entrepreneurial dominance in the Asia Pacific by inherent networking processes, the subcontracting of cheap labor and centralized structures for flexibility advantages in crisis or opportunity. These arguments are more aligned with the convergence perspective that promotes a basic premise that prevailing political and economic forces will systematically influence the adoption of a relatively common set of managerial attitudes and behaviors. There is also a third perspective, that cultural values can be assimilated. Ralston and colleagues (1993) suggested, together with some evidence that included a sample of mainland Chinese managers that blending of salient cultural and indigenous values could lead to a hybrid condition which they termed crossvergence. Understandably, the extent of convergence or divergence of managerial mindsets in the contemporary global village will continue to foster debate.

This debate has been fuelled by a perceived need to understand the mental orientation of managers. Central to the debate is a notion that the changing professional contexts of managers are reshaping their mental states, such as values of work goals, which are believed to influence cognitions, decision making and business interactions (Dowling and Nigel, 1986; England, Dhingra and Agarwal, 1974; Rokeach, 1973; Westwood and Posner, 1997). Consequently, the emerging markets of the south east Asian nations have attracted the attention of a number of research endeavours, by employing an enormous range of methodologies and measures with the aim of identifying drivers that are developing or modifying organizational structures, management practices and business strategies. For instance, Shaw and colleagues (1995) examined the influence of political forces and imitation processes of human resource practices (i.e., pay systems, training and developing activities) in local and foreign firms in Singapore and Hong Kong. And although a great number of investigations (Gopalan and Rivera, 1997; Kakar, Kets de Vries, Kakar and Vrignaud, 2002; Ralston, Thang and Napier, 1999) have been undertaken to assess the proposition cultural traditions and values, and social practices can strongly affect behaviors and lead to a diversity of management globally, Lundberg and Peterson (1994), and Harpaz and Fu (1997), mindful of changes in cadre participation rates, attempted to explain how similarity and dissimilarity of managerial mindsets are influenced by some demographic properties. In spite of the vast amount of investigation that has analyzed the personal disposition of managers in endeavors to generate a better understanding of Asian managerial trends seldom has a paradigm for creating culture specific expectations, or mental and social lines of distinction been employed.

The purpose of this paper is to report in five parts, an evaluation of a conceptual paradigm that contains a cluster of three constructs that are believed to be associated with the evolution of a managerial global mindset. In the first part is presented a review of the relevant literature, which provides the theoretical underpinnings for a conceptual model that expresses the three variables of 1) knowledge and information, 2) risk tolerance, and 3) international experience, that are predicted to contribute to the development of a managerial global mindset. In the second section, the conceptual model and the definition of the constructs is presented. How the conceptual model was evaluated is succinctly described in the third section of the paper, and the results are given in the fourth section of the paper. A concluding discussion summarizing the ramifications of the results is presented last.

## **The Logic of Globalization**

Figure 1 highlights the causal driven logic of globalization. it is depicted in Figure 1 that change process is initiated at the macro/national level, and that the forces percolate through the meso and finally the micro levels of society. For example, when China joined the WTO in November 2001, protection of domestic industries (by inspections and tariffs) had to be phased out, companies were restructured and labour reforms were implemented (Smyth and Zhai 2001). Nevertheless, apart from *government forces*, which enable the extension of the industry's legal and regulatory scope beyond national boundaries, being one of the driving forces towards globalization at the macro level in general, industrial organization theory has identified three other forces impacting global orientation. These have been nominated as 1) market, 2) cost and 3) competition (Yip, Johansson and Roos 1997; Yip 1989). *Market forces* enable the extension of the industry's market-scope beyond national boundaries and are indicated by new customers from global markets, use of global channels and

adoption of techniques and processes from global sources. *Cost forces* enable the extension of the industry's operation-scope beyond national boundaries, indicated by global economies of scale, favourable logistics, differences in country costs (including exchange rates), and outsourcing. *Competition forces* enable the extension of the industry's competitive-scope beyond national boundaries by creating well-established benchmarks indicated by the matching of structures, processes, systems and strategies employed by competitors. Collectively, these elements, together with government policy are the macro context.

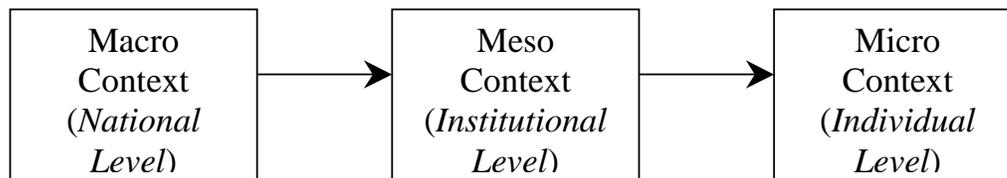


FIG. 1: CONTEXT DRIVEN LOGIC OF GLOBALIZATION  
Source: Ananthram and Chatterjee, 2004

The macro level forces of government, market, cost and competition pressure organizations (at the meso level). Indeed corporations are able to take advantage of the favorable macro environment, and consequently, shape their structures, processes and strategies to develop a competitive advantage. In practice these new organizational paradigms shape the way the companies relate to the operational environment. For instance, decisions made by organizations on the possibility of moving into overseas economies are strongly influenced by appropriate organizational paradigms (Burpitt and Rondinelli, 1998). Earlier, Dutton (1993) defined an organizational paradigm as a *theory of action* whereby organizations with a commitment to entrepreneurship perceive external possibilities (supplemented by the macro level forces enabling globalization) as opportunities. This contention (Dutton, 1993) highlights the importance of contextual conditions, institutional conditions and overall competitive orientation at the meso level as the important support builders for organizations to attain global reach. However, global opportunities do not necessarily translate into improved per capita incomes (Mehta, 2001).

Some of the key organizational factors which have enabled global linkages at the meso level include *organizational strategy* (Bartlett and Ghoshal, 1989; McDugall 1989); *technology intensity* (Cavusgil and Knight, 1997; Kohn, 1988) and *entrepreneurial orientation* (Burpitt and Rondinelli, 1998; Covin and Slevin, 1989). Clearly, these are salient features of corporations that are vital for mitigating further change. However, an important caveat the meso level contextual pressures of organizational strategy, technology intensity and entrepreneurial orientation operate simultaneously and compel managers to develop values, skills, competencies and a culture favorable to compete in the global environment. Recent studies have emphasized micro-level global reform and the cultivation of a global mindset to create an intelligent global organization (Gupta and Govinarajan, 2002; Jeanett, 2000; Rhinesmith, 1995). A critical success factor for any organization is the level of global mindset orientation amongst its managers (Harveston, 2000; Murtha, Lenway and Bagozzi, 1998). This provides a rationale for a deeper level understanding of the societal, psychological, cultural, economic and individual level parameters shaping the mindsets of managers (Begley and Boyd, 2003; Gupta and Govindarajan 2002; Jeanett, 2000; Beechler, Taylor, Boyacigiller, and Levy, 1999; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992; Bartlett and Ghoshal, 1989).

A number of studies have linked managerial global mindset orientation with certain competencies. Three competencies have been identified as *knowledge and information* about different cultures and contexts (Kedia and Mukherji, 1999; Rhinesmith, 1995; 1993; 1992), *levels of risk tolerance*, which is defined as the extent to which managers are willing to make risky decisions about international activities (Roth, 1992; Covin and Slevin, 1989), and *levels of international experience*, which is defined as the amount of experience that a manager has accumulated in an international context which includes foreign assignments, education and vacations (Harveston, 2000; Tung and Miller, 1990; Christensen, da Rocha and Gertner, 1987).

## Concept of Global Mindset

The concept of global mindset has received a growing interest amongst researchers over the past decade. Global mindset has been conceptualized in the international management literature as cognitive structure, a set of observable behaviors, individual competencies, leadership traits and strategic maturity (Gupta and Govindarajan, 2002; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992). The concept assumes that human beings and organizations are limited in their ability to absorb and process information. The constant challenge of complexity, ambiguity and dynamism of this information environment is responded by individuals through a process of cognitive filtration which involves the selection of what they absorb and the unique way in how they interpret the information (Gupta and Govindarajan, 2002). An integrated view of the concept can be summarised as *'the ability and willingness of managers to think, act and transcend boundaries of goals, values and competencies on a global scale'* (Ananthram and Chatterjee, 2004: 2).

### Competencies/Values

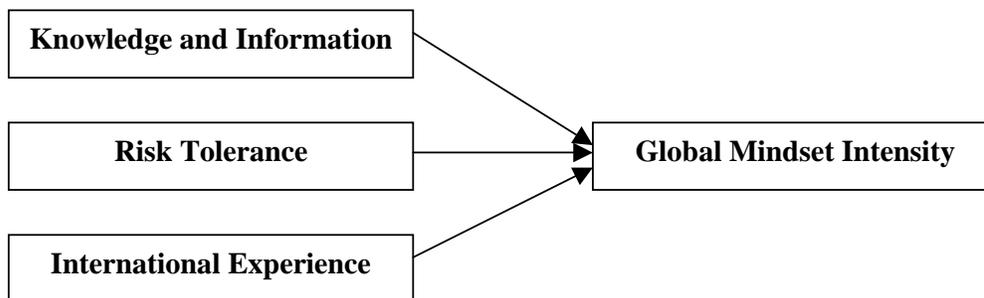


FIG. 2: GLOBAL MINDSET DEVELOPMENT MODEL  
Source: Adapted from Ananthram and Chatterjee, 2004

Fig. 2 highlights the global mindset development model for Chinese managers. This conceptual model provides a generic conceptual framework of the context of global mindset development underpinned by the theory of the logic of globalization. The macro-level forces impinge on organizations to rethink their strategies and processes and focus on converting their local presence into a global advantage which in turn puts the onus on executives and managers to cultivate a global mindset by developing values, skills, competencies and a culture favorable to compete in the global environment. The conceptual model (as shown in Figure 2) was empirically tested with a sample of executive managers who were employed in Chinese organizations and the procedure that was employed is outlined next.

## Methods

### Sample

The study respondents were 27 executives, supervisor and middle level managers of Chinese organizations. Specifically, 44 percent of the respondents were executives and senior managers, while the remainder ranged from supervisor and middle level managers to specialists. Few of these respondents were female. Other respondent attributes are reflected by the high levels of professional training and formal education. Almost 85 percent of the respondents had a professional qualification ranging from certificates to diplomas to executive development programs. A profile of the study participants is presented as Table 1.

TABLE 1: DEMOGRAPHICS % (N = 27)

<b>Managerial Level</b>		<b>Gender</b>	
Executive	44.4	Male	96.3
Supervisory and Middle	55.6	Female	3.7
<b>Age (Years)</b>		<b>Educational Background</b>	
Less than 39	25.9	University Degree	40.7
40 – 49	70.4	Professional Degree	85.2
50 and above	3.7		

### Procedure

Data were obtained with the support of the Central Consulting Ltd, a management consulting company in China, in July 2004. The Central Consulting Ltd. offers a number of executive training and management development programmes for executives and managers in organizations across China. The 27 respondents of this study were sponsored by the respective organizations to attend a management development program offered by the Central Consulting Ltd and were during the course their program invited to complete a questionnaire.

A Mandarin version of the questionnaire was administered. The questionnaire was translated into Mandarin (from English) and back translated to English by independent bilingual professional translators employed by the Central Consulting Ltd in China. A third different group of researchers compared the original and final versions of the questionnaire for nomenclature correspondence. The data collected from this study was input onto Statistical Package for the Social Sciences (SPSS) software Version 11.5. Data were then subjected to exploratory factor analyses with varimax rotation option to assess the psychometric properties of the instruments and to assess the internal consistency of the constructs. Reliability analysis to assess the internal validity of the constructs was also conducted. In this study is presented some of the results of the assessments of some of the variables that were measured by the questionnaire.

### Measures

The survey instrument was designed to capture demographic and perceptual data. Some of the demographic data is reported in Table 1. The perceptual responses were in terms of the three independent variables of knowledge and information, risk tolerance and international experience; and the dependent variable of global mindset.

#### *Knowledge and Information*

This construct is defined as the deep understanding of different aspects of the interdependent world and mastery over technology. In the absence of an instrument, knowledge and information was measured using a scale developed by this study from underpinning theory, feedback from scholars in international management in Australia, India, China and Singapore and managers in India and China. Three dimensions of knowledge and information have been identified in the literature, namely, *mastery over technology*, *socio-political factors of different countries* and *culture and cross-cultural issues that impact management* (Kedia and Mukherji, 1999; Rhinesmith, 1995, 1993, 1992). Three items were developed for each of the three dimensions from the available literature. Participants were asked to respond on a seven point Likert scale (1 = extremely unimportant to 7 = extremely important) to indicate the level of importance each item had in working in the global marketplace. Exploratory factor analysis resulted in the items loading onto three factors with eigen values of 2.9, 2.2 and 1.5. The reliability alpha's of the three constructs *mastery over technology*, *socio-political factors of different countries* and *culture and cross-cultural issues that impact management* were 0.56, 0.82 and 0.75 respectively.

#### *Risk Tolerance*

This construct has been defined as the extent to which managers are willing to make risky decisions about global activities. The measure assesses the extent to which respondents perceive risk and costs associated with the global expansion of their organization. This study employed a measure from Roth (1992) that was adapted from Covin and Slevin (1989), and later employed by Harveston, Kedia and Davis (1999) in their seminal work on the internationalization of born global and gradual globalizing firms. Managerial risk tolerance was assessed through five questions dealing with the riskiness involved with global activities. Respondents were asked to respond on a seven point Likert scale (1 = extremely unimportant to 7 = extremely important). All the items loaded onto one factor with an eigen value and alpha reliability assessment of 1.94 and 0.54 respectively.

#### *International Experience*

This construct has been defined as the amount of experience that a manager has accumulated in an international context. A number of studies have used the amount of time spent overseas in the form of foreign assignments, education or vacations as a proxy for international experience (Harveston, 2000; Harveston, Kedia and Davis,

1999; Christensen, Da Rocha and Gertner, 1997; Tung and Miller, 1990). This study adapted a measure by Harveston (2000) which was adapted from Harveston, Kedia and Davis (1999). Level of international experience was assessed through four questions. Participants were asked to respond on a seven point Likert scale (1 = very rarely and 7 = very extensively) to their level of involvement with each activity. All the items loaded onto one factor with an eigen value and alpha reliability assessment of 2.44 and 0.78 respectively.

**Global Mindset**

This construct is defined as the ability and willingness of managers to think, act and transcend boundaries of goals, values and competencies on a global scale. Global mindset has been conceptualized in international management literature as cognitive structure, a set of observable behaviours, individual competencies, leadership traits and strategic maturity (Gupta and Govindarajan, 2002; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992). Following the work of Kedia and Chhokar (1985), global mindset was assessed by asking managers a series of questions about their attitude towards globalization. Questions were adapted from Burpitt and Rondinelli (1998). Responses were coded on a seven point Likert scale (where 1 = Strongly Disagree to 7 = Strongly Agree. The responses were subjected to principal component factor analysis using varimax rotation in order to reduce the number of variables. One factor emerged with an eigen value of 2.54 and a reliability alpha of 0.79.

**Results**

Table 2 shows the multiple regression analysis results when the conceptual model (Figure 2) was assessed. At the top of table 2 is shown overall statistics and the Analysis of Variance output that depicts the conceptual arrangement was significant. Also included in Table 2, is the mean scores of the evaluated variables as well as the parameter estimates, beta scores and probability statistics. Except for social political factors, all relationships were significant. The significant inverse relationships were a feature of the respondents who were predominantly indigenous Chinese managers who had scant international business experience.

TABLE 2: MULTIPLE REGRESSION ANALYSIS FOR THE MICRO-LEVEL ENABLERS AND GLOBAL MINDSET INTENSITY

Multiple R	0.739		
R Square	0.546		
Adjusted R Square	0.438		
Standard Error	0.590		
<b>ANALYSIS OF VARIANCE</b>			
	<b>Df</b>	<b>Sum of Squares</b>	<b>Mean Square</b>
Regression	5	8.809	1.762
Residual	21	7.320	0.349
<b>F = 5.055</b>			
<b>Signif F = 0.003*</b>			

Notes: a. Predictors: (Constant), Mastery over Technology, Socio-Political Factors about Different Countries, Culture and Cross-cultural issues that Impact Management, Risk Tolerance, International Experience.

b. Dependent Variable: Global Mindset Intensity.

c. \* p < 0.01.

Variable	Mean Scores	B	Std Error	Beta	t	Sig t
Mastery Over Technology	5.57	.398	.190	.377	2.097	.048*
Socio-Political Factors of Different Countries	5.10	.219	.144	.256	1.519	.144
Culture and Cross-Cultural Issues that Impact Management	5.36	-.284	.122	-.368	-2.335	.030*
Risk Tolerance	5.01	.513	.234	.391	2.189	.040*
International Experience	2.28	-.363	.162	-.405	-2.238	.036*
(Constant)	1.489	1.257		1.184	.250	

Notes: a. Dependent Variable: Global Mindset Intensity

b. \* p < 0.05

c. Overall mean score for Knowledge and Information was 5.34

Table 2 provides the multiple regression analysis results when the conceptual model of Figure 2 was assessed. The three constructs of the variable *Knowledge and Information*: Mastery over technology, socio-political factors of different countries and culture and cross-cultural issues that impact management were regressed onto the dependent variable to highlight specific significant attributes of the variable. The analysis indicates a significant relationship between the micro-level enablers as a whole and the mindset variable. Independently, it can be noted that all the constructs except knowledge about *Socio-Political Factors of Different Countries* have a significant relationship with the dependent variable consistent with the existing literature. This further reinforces the importance of mindset as an outcome of the development of the micro-level enablers or competencies. A detailed analysis of the results is presented in the concluding discussion.

## Concluding Discussion

Globalization has become one of the most widely debated and controversial topic of contemporary times. Societies, organizations and individuals are undergoing unprecedented upheavals as global linkages in economic interdependence are responded to, differently, at different levels. The macro-level converging forces of economic globalization permeate onto the meso and micro level frames which makes it imperative to understand the symbiotic relationships of the macro-meso-micro interaction. Given China's embrace of the intensification of globalization, this macro-meso-micro interaction is of foremost importance in numerous industries (Ananthram 2004) providing a rationale for a deeper level understanding of the societal, psychological, cultural, economic and individual level parameters shaping the mindsets of managers and executives in Chinese organizations (Begley and Boyd, 2003; Gupta and Govindarajan 2002; Jeanett 2000; Beechler, Taylor, Boyacigiller, and Levy, 1999; Murtha, Lenway and Bagozzi, 1998; Rhinesmith, 1995, 1993, 1992; Bartlett and Ghoshal, 1989). The dominant quality of this paper is the presentation and evaluation of a conceptual model of competency linkages which are believed to be associated with the development of a managerial global mindset.

The study had two salient findings. A first important observation is the strong consensus for the independent values which assessed on seven point scales. It was shown in Table 2 that four of the independent constructs attracted means greater than 5.0 to reveal a strong endorsement for the questionnaire items. In contrast, the variable of international experience had a mean score of 2.28, which reflects the study sample was essentially a cohort of local managers with little exposure to the global market arena. A second important feature of the results is relatively strong support for the investigative paradigm expressed in Figure 2. Indeed, the overall analyses revealed nearly 44 percent of the variance the mindset was accounted for by the independent variables, a value that may be considered high in social science research. Despite a relatively small sample the results provide substantial support for the hypothesized relationships expressed in the global mindset development model.

The results indicate that the three mindset variables of *knowledge and information*, *risk tolerance* and *international experience* had a significant impact on the dependent global mindset variable. With a growing emphasis on the impact of technology on business dealings, it has become imperative for managers at all levels to be conversant with computer skills and e-commerce. A number of companies now offer services online, where there is no physical interaction between the buyer and seller, especially in the services sector. Chinese

organizations are now being coerced into developing software that is compatible with the English language, which is the common language in cross-border dealings. The respondents also noted the importance of culture in business dealings and the impact culture has on cross border assignments, negotiations, mergers and alliances on the development of a global mindset. In contemporary competitive market landscapes where managers frequently undertake business encounters both domestically and internationally, it is predicted better engagements are likely to be enjoyed by those who better understand cultural nuances and exigencies. Also, the increased uncertainty in the political, economic and socio-cultural environment in the contemporary complex global era makes it imperative for managers to act and react within the shortest time span available. The respondents indicated the importance of a high level of risk tolerance in clinching business deals before competitors do, especially given the increased amount of competition from bidding countries as economies open up to foreign competition. Though risk tolerance is to a large extent an inherent attribute, the respondents indicated a positive nexus between high risk tolerance levels and increasing levels of international experience gained through overseas postings, negotiations, alliances, education and travel. The responses also indicate that the development of a global mindset is largely impacted by high degrees of international experience supplemented with a high risk tolerance level.

The study design had limitations and strengths. As the investigation was undertaken within a narrow section of the Chinese managerial population, the results are likely to reflect common method variance. Also, the small sample size gave encouraging results, but assessments with larger cohort groups across other business domains would have greater predictive power and generalizability. Although the conceptual model, shown as Figure 2, may well be saturated (as evidenced by some degree of multi co-linearity) it does assimilate a number of important constructs that have been identified in the relevant literature as determinants of a global mindset. The information provided in this paper may encourage others to explore similar paradigms in more expansive studies in the quest to better understand the dynamics of global mindset orientation.

## **References**

Contact the Author for a list of references.

# **The Importance of Learning in the Contemporary Global Business Arena: An Empirical Assessment in the Maldives and Mauritius**

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## **Abstract**

**The dramatic emergence of global business has shaped new managerial priorities. A distinct feature of a marketplace that stimulates and facilitates the flow of investment, trade and services is the importance of skill acquisition in terms of transactions in education and vocational training. This paper, which reports the work goal preferences of 409 managers from the Maldives and Mauritius provides empirical evidence of the importance of learning as a result of the penetration of global economic, political, technological and social forces. The results are discussed to present implications for HRM policies and practices on business operating in inter and intra national contexts.**

## **Introduction**

Globalisation is an integral component of contemporary industrial society. Historically, minimal investment was given to the impact of globalisation on information acquisition, technology, education, tourism and terrorism, but today it is increasingly recognised major infrastructures, such a health services, transportation, communication networks, energy providers as well as water, sewerage and drainage utilities are being challenged to engage in broad based partnerships (Kingman-Beundage, George & Bowen, 1994; Weiner, Alexander & Zuckerman, 2000). Moreover, financial, industrial, manufacturing, welfare and legal agencies, and a host of other institutions engaged in activities, which underpin the fabric of a comprehensive range of societal needs, fosters integration with consumers through governing service systems at the local, regional and international levels (Congram & Epelman, 1995; Holmund & Strandvik, 1999, Silvestro, 1999). Consequently, strategic service management has become a central feature of leading corporations, whether they are manufacturing tangible or intangible products, to market their service capabilities. Over a decade ago Roscitt and Parket (1990) argued the highest level of service management was being demonstrated in “alert” (p. 28) companies, which inculcated synergistic company wide service cultures to engage both internal (employees) and external (clients, customers, providers) consumers in comprehensive business initiatives. Chan (2002) contends this position has been exacerbated in companies, which currently face formidable competitive pressures in new contours of economic order.

Creation of organisational architectures responsive to customer preferences requires a considerable resource investment. A holistic cultivation of internal and external constituent mindsets is likely to be encouraged by collaborative engagements as complex, dynamic and voracious customer needs and expectations are delineated and refined (Kingman-Brundage et al. 1995; Weiner et al. 2000). These concepts have spawned the social quality movement of the modern industrial society (Chin, Sun, Xu & Hua, 2002; Deming, 1986; Ishikawa, 1985; Juran, 1988; Grant, Shani & Krishnan, 1994), and the promulgation of a great deal of service quality literature (Carman, 1990; Orwig, Pearson & Cochran, 1997; Parasuraman, Berry & Zeithaml, 1985). A clear demonstration of the recognised importance of these concepts is revealed in the adoption of company wide strategic services management to embrace a customer service culture at all levels of engagement. Such spectacular reform initiatives have been exhibited in a number of South East Asian institutions (Bu & Xu, 1999; Li, 2003) subsequent to the currency crisis of 1997.

Rejuvenation in worker expectations, attitudes, values and practices is an expensive journey. The attainment of service quality oriented initiatives, that profoundly influence work structures and processes, obliges all involved participants to undertake considerable long term investment in learning (Marquardt & Berger, 2003). This

is because in traditional organisations, human resource management developmental programmes are frequently confined to reactive skill enhancement. In contrast, quality service management of the modern, competitive, global business domain encompasses softer, proactive competencies of team building, trust and loyalty development as well as creating vital provider and customer relationships knowledge (Chan & Pearson, 2002, Kingman-Brundage et al. 1993; Weiner et al. 2000). Hence, today's managers (compared to traditional managers) have expanded roles which challenge them to cultivate cross functional, integrative knowledge (people and technology) systems that will be responsive to customer preferences and expectations.

In this paper is advanced the notion globalisation has significantly impacted organisations, and specifically, workplace learning. As noted by Marquardt and Berger (2003) "... creating and sustaining meaningful and long-term change for global, national and community development." is equally important in manufacturing companies or service providers. The paper content presents a perspective the development of a seamless service culture, which is diffused throughout the organisation so activities demonstrate responsiveness to customer preferences, is a learning experience likely to be embraced by more progressive firms. These concepts are explored in the context of two island states in the Indian Ocean, the Maldives and Mauritius that are reinventing themselves in the aftermath of the 1997 financial crisis. Considerable foreign investment has driven a veritable tidal wave of economic and social reform, and consequently, the development of workforce skills and intellectual capital as the institutions of these two societies embrace multiculturalism and globalisation. Data from 409 managers reveal a strong preference for learning compared to other work relevant values. The findings are discussed in terms of the implications of expanding business interests with strong linkages abroad.

## **Organisational Learning**

In the aftermath of the 1997 south east Asian financial crisis the intensity of business competition has not abated (Das, 1999; Wan & Ong, 2000). Indeed, in the afterglow of meltdown the importance of the integration of elements of the internal organisation with external constituents was recognised. This was emphasised by strong calls to install reform initiatives to contain dysfunction effects on global markets and to reduce vulnerability to future business transactions (Aggarwall 1999; Tan 1999; Lim, 1997). One observable outcome has been fervent change in business environments (Halal & Taylor, 2002). Collectively, numerous pressures have heightened a compulsion for organisations to continually seek out those practices that will provide competitive advantage. One practice that has received considerable attention is the notion of organisational learning.

The concept of organisational learning has a long lineage in the social sciences literature. Notable contributions were provided in the 1960s (Cangelosi & Dill, 1965; Cyert & March, 1963) who advanced the earlier foundations of scientific management which was an environment in which employees learned to perform their jobs better by using principles of specialisation, repetition, observation and feedback (Taylor, 1911). More recently the notion of organisational learning has been promoted among academics and practitioners because of its potential to positively impact competitive advantage. Thus organisational learning is frequently perceived to be a crucial strategy for institutional survival.

Despite the considerable body of literature there is a lack of conceptual congruence about organisational learning. This is demonstrated by a variety of definitions, as well as disagreement as to whether it is a process or an outcome. In this paper the focus will not be in terms of conceptualisation, or what constitutes organisational learning with facets of how learning is undertaken, systems for storing and retrieving knowledge or relationships between individuals or groups. In this paper, the focus will be upon the perceptual value of learning in comparison to the preference extent of other work place relevant dimensions.

## **Service and Learning**

Interest in customer service is vital for the sustainability of industrial entities. Indeed, service requirements are becoming a major element in the development of product and service strategies (Eaton, 2000; Cross & Smith, 1995). In earlier times when manufacturing was the dominant base of an industrial society the norm was to improve service

effectiveness by cultivating a functional division of the organisation, such as sales operations, or the service department. Today, the manufacturing sector has been displaced by a burgeoning service sector, which has led to an inseparability of production and consumption in many operational settings. The more progressive managers (of today) are increasingly acknowledging service as a multidimensional property, often with some intangibility, and that customers can have an active role in the service product. This has compelled a strategic realignment in dealing with customers. Although managers have always sought to attain a level of customer loyalty and satisfaction, contemporary managers have to better articulate “dynamics of recalcitrant service problems” (Kingman-Brundage et al. 1995: p. 36) with customers who are likely to have an active role in the production process. Consequently, better service delivery is characterised by important relationships between provider and customers, which are necessary for achieving high levels of customer satisfaction and loyalty. Understanding the significance of these relationships compels organisations to develop sophisticated human resource management (HRM) policies and practices to instill a culture for facilitating customer loyalty and corporate profitability.

A vital cog in the delivery of quality services is structural coordination and alliances. The importance of coordination in work settings has been widely acknowledged as concepts of job standardisation and rule observation (Hage & Aitken, 1967), task vulnerability (Perrow, 1967), and work flow interdependence (Thompson, 1967; Van de Ven, Delbecq & Koenig, 1976), for diagnosing work routines, task scheduling and standardisation of job processes. In spite of these properties providing underpinning for establishing formal patterns of interaction and coordination to link tasks of individuals and groups (to achieve desirable outcomes) the arrangements allow for minimal interaction between service providers and customers. Nevertheless, the competitive climate of today’s market place demands work processes become characterised by iterative interactions between service providers within companies and frequently with customers (Gittell, 2002, Weiner et al., 2000). This is equally true for manufacturing corporations as well as service providers as well as outlets which blend tangible and intangible output (e.g., fast food outlets). Deepening commitment to involvement in partnerships with customers, that “go beyond isolated episodic interactions” (Gittell, 2002: p. 299) is likely to be facilitated by developing social capital (shared goals, knowledge, mutual respect) with tailored HRM policies and practices. Ultimately, such endeavours have potential to foster a managerial rationality towards a service logic.

Developing a service logic requires investment in learning. This is because a service logic is integrative, collaborative, and often the phenomena is complex as team members engage in synergistic interactions (Kingman-Brundage et al., 1995), within and outside the work place. Traditionally, sales, bureaucracy or legal logics have driven organisations in competitive, decisive arrangements (Rossett & Parket, 1990). In practice, the traditional functional services division had a primary role of after sales support for the company core product. This role is expanded in the contemporary competitive service logic corporation to a point where servicing is now a core function of the organisation (Cohen & Levinthal, 1990; Schultz, 2001). The sustainability of a service culture is reliant on employees who are knowledgeable not only of their own domain (e.g., engineering, production), but they must have access to vital information from other points in the organisation. Moreover, the provided service must be responsive to customer preferences. Transition from traditional work place cultures to a contemporary service logic environment will be associated with mindset change that captures congruity of the service concept of fundamental customer, technical and employee needs and expectations. Cumulatively, these theoretical contentions lead to the following prediction. *A reorientation of thinking will intensify pressures of employees to continually expand their portfolio of work relevant skills, competencies, talents and knowledge.*

## **Methodology**

### **Respondents and Site**

The study respondents were 409 managers who were working in the Maldives and Mauritius. Key respondent demographics and the size of the country samples are shown in Table 1. It is revealed in Table 1 nearly one third of the managers were female, which underscores the emerging role of women in these nations. The data, and particularly for the Mauritius sample, demonstrate a high percentage of the respondents were executive managers, who are the ‘change masters’ in the context of global change. Consequently, there is relativity with age (and

managerial level) in the two cadres. In addition, the prominence of formal education is shown. Overall, the profile of Table 1 reveals pertinent features for partitioning the work goal preferences.

TABLE 1: DEMOGRAPHICS (%)

Respondents	Overall 2057	Maldives 208	Mauritius 201
<b>Gender:</b>			
Female	31.8	43.3	25.9
Male	68.2	56.7	74.1
<b>Managerial Level:</b>			
Executive	34.7	44.2	78.1
Middle	36.9	38.5	16.4
Supervisory	28.4	17.3	5.5
<b>Age (years):</b>			
20-29	22.7	33.7	8.8
30-39	32.2	35.6	24.6
40-49	24.4	26.4	32.3
Above 49	20.7	4.3	34.3
<b>Education Level:</b>			
Senior High School	15.1	19.7	10.0
Trade or Vocational	18.8	34.6	17.4
University	66.1	45.7	72.6

The study managers were employed in a variety of organisations delineated by industry, size, structure and ownership. For example, these organisations were active in tourism, construction and industry, transportation, agriculture, manufacturing, finance and a plethora of service entities. Both the public and the private sectors were represented. Consequently, organisational size varied from large corporations to small family firms. Moreover, the organisational dimensions varied from company to company. Hence, it was less than meaningful to assess the data across these attributes. Indeed, this contention has precedence in earlier studies that have assessed managerial work goal preferences (Harpaz & Fu, 1997; Lundberg & Peterson, 1994).

The Maldives and Mauritius are island sovereign nations. More specifically, the Maldives is an archipelago (300 square km) in the Indian Ocean, southwest of India, while Mauritius, also an independent democracy, is a considerably larger island (2040 square km) east of Madagascar. Notably, these two countries are strategically located on major sea lanes in the Indian Ocean, and are well poised to take advantage of growth in Africa, India and the Asia Pacific Region. The Maldives has a population of about one quarter of Mauritius that was estimated at 1.2 million in May 2004. Initiation of economic reform programmes during 1989 has liberalised foreign investment, and today tourism in the Maldives accounts for some 20 percent of GDP and 60 percent of foreign exchange receipts. Within the Maldives economy agriculture and manufacturing continue to have a lesser role. Mauritius has also been impacted by global forces. Initially, based on an agricultural economy (fishing, sugar cane), which have been considerably expanded, the country has a new order of industrial, financial and tourism sectors, which continue to develop at a remarkable rate of some six percent. Clearly, being enmeshed in a globalised world these two countries have undergone substantial structural reorientations as they have accelerated the search for new markets, advanced techniques of production/service, and greater capacity human resource management business practices.

#### **Procedure**

The procedure for conducting the study had three main elements. The first element was the capturing of data from all respondents by the administration of a questionnaire. This approach was undertaken despite being mindful that in workplaces of developing and transitional economies it is unusual for employees to complete questionnaires. Thus, a second feature of the study was to establish a *quanxi* with the participants through sponsorship by the employer

organisation. The third feature of the study was to employ focus groups in each country to elucidate the meaning of the results of analyses from data obtained by the questionnaire.

### Measures

The questionnaire was prepared to obtain two main types of data. In the first section of the questionnaire, demographic data were sought (e.g., gender, age, managerial level). The second type of data was the ranked preferences of a set of 11 work goals. The instrument is attached in Appendix 1. In practice, managers were required to rank their perceived importance of the 11 work goals. This notion was first employed by the Meaning of Working study (MOW, 1987), led by George England, which was seminal cross study of the leading industrialised nations of 1981 to 1983. Their study with 8192 managers in eight countries was to considerably shape HRM policies and practices of the Western World (McGaughey, Iverson & DeCieri, 1997).

### Analysis

The relative importance of the 11 work goals was examined by determining item mean scores. This process has been employed in earlier studies. The data were further evaluated by testing for the significance of different rank scores within a country or between countries. For relative simplicity only rank scores of the 11 work goals, partitioned by country or demographic attributes are presented in this paper.

## Results

### Work Goal Rankings

Table 2 shows the work goal rankings across countries as well as the overall ranks reported by the MOW study. Inspection of the ranks of our study reveals the respondents expressed a high level of consensus for the work goal of *the opportunity to learn new things*. At lower levels of preference considerable agreement was given for the work goal of *interesting work*, and *matching of job requirements with incumbent ability and experience*. Generally, the two comfort goals of *convenient work hours*, and *work conditions*, and *the work goal of job security* were the least preferred. Arguably, there was greater divergence in work goal rankings for the remaining five work goals of 1) *good opportunity for promotion*, 2) *good salary*, 3) *a lot of autonomy*, and to a lesser extent 4) *interpersonal relations*, while 5) *task variety* had equal rank scores. Explanations for these variations were provided during focus group discussions.

TABLE 2: WORK GOAL MEANS AND RELATIVE IMPORTANCE

Work Goal	Maldives	Mauritius	MOW
Opportunity to learn	3.75 <sup>1</sup>	3.89 <sup>2</sup>	7
Promotion	5.52 <sup>5</sup>	6.13 <sup>7</sup>	11
Interesting work	4.07 <sup>2</sup>	3.27 <sup>1</sup>	1
Salary	7.69 <sup>10</sup>	6.91 <sup>8</sup>	2
Good match skills/tasks	4.45 <sup>3</sup>	4.31 <sup>3</sup>	5
Autonomy	6.46 <sup>7</sup>	4.35 <sup>4</sup>	6
Inter personal skills	4.48 <sup>4</sup>	5.55 <sup>5</sup>	3
Security	7.65 <sup>9</sup>	8.22 <sup>10</sup>	4
Variety of tasks	6.25 <sup>6</sup>	5.96 <sup>6</sup>	8
Convenient work hours	8.28 <sup>11</sup>	9.44 <sup>11</sup>	9
Conditions of workplace	7.30 <sup>8</sup>	7.95 <sup>9</sup>	10

Notes: a. The superscripts denote the ranking of the work goals.

b. MOW = The work goal rankings of the Meaning of Working Study (Harpaz, 1990; MOW, 1987)

Table 2 also shows variations between the country work goal rankings and the overall rankings of the MOW study. Notably, the work goal of *opportunity to learn new things* is considerably elevated as is the *opportunity for promotion*, while the work goal of *matching of job requirements with incumbent competencies* is marginally more important. It is also revealed in Table 2 the work goals of *interesting work*, *autonomy* and the two comfort goals of *convenient work hours*, and *good physical work conditions* have over time retained their respective preference levels. In contrast the work goals of *good salary* and *good job security* were considerably less preferred

in our study than the values reported in the MOW study. Table 2 also show there were some differences between the two studies for the work goals of *interpersonal relations* and *job variety*. The differences and similarities in work goal preferences were inspected across the assessed demographic variables.

Table 3 shows the work goal ranks across countries for gender. In addition, at the foot of Table 3, is presented the ranks for the MOW data. A salient feature of Table 3 is the degree of consensus expressed by the male and female respondents of our study for the relative importance of the 11 work goals. There were few instances when the male and female preferences were substantially different. A second prominent feature of Table 3 is the pattern of relative importance of work goals. Specifically, the work goal of *opportunity to learn new things* frequently attracted high preferences, while *interesting work* was often also reported to be reasonably important to the study managers. The work goal of *matching job requirements with incumbent ability and experience* was perceived to be of intermediate importance. The least preferred work goals of the male and female managers were the two comfort goals and the work goal of *job security*. A third feature of Table 3 is the extent of consensus and divergence between the work goal rankings of this study and the ranks as reported in the MOW study. Refer to Table 3.

Table 4 shows work goal ranks across the three managerial levels for the study countries. These data reveal there was a reasonable extent of agreement for the relative importance of the work goals. *The opportunity to learn new things* was often the most preferred work goal compared to *interesting work* which was perceived to be more important than *matching job requirements with incumbent ability and experience*, while the work goal of *opportunity for promotion* was also relatively attractive. Lower preferences for the work goal of *good interpersonal relations* was recorded across managerial levels. The lowest ranked work goals were often the two comfort goals and the work goal of *job security*. Comments from the focus groups enhanced understanding for the patterns of ranking, as well as the extent of consensus and divergences. Refer to Table 4.

Table 5 shows the profile of work goal rankings for the study countries across age categories. At the base of Table 5 is presented the rankings for these work goals as reported in the MOW study. In spite of substantial variations in the number of respondents in each examined group (country and age) the data of Table 5 show a high preference for the work goal of *the opportunity to learn new things* and the work goal of *interesting work*. Comparisons with the overall MOW data show a substantial difference with the work goal of *learning*. Refer to Table 5.

### **Focus Groups**

Focus groups enriched understanding of the findings in two main areas. The first major contribution of the focus groups was to elucidate underpinning for the relevant preferences of work goals. Unusually, groups in both countries acknowledged the importance of learning new things. Focus group members contended managers were required to continually upgrade their skills, knowledge, competencies and talents. These imperatives were the consequences of today's work settings which were impacted by continuous changes in technology, ever escalating customer expectancies and an incessant drive for company sustainability. On several occasions it was remarked "*A good job today is of little value if you do not know how to do tomorrow's job*". Despite other work goals such as salary, interesting work, and autonomy being important they were, in the overall scheme, relatively less important than the opportunity to learn new things.

A most interesting finding was the relatively low importance attached to salary. Two decades earlier the work goal of salary had been ranked second in the MOW study. It is important to acknowledge the MOW study was undertaken prior to the massive job losses worldwide and the extensive institutional downsizing of the manufacturing industries, which occurred in the late 1980s. In addition, the MOW data were obtained prior to the emergence of the complex global market economy, and a focus on service quality which grew out of the quality social movement. Although comparison of work goal preferences (between MOW and our findings) is cautioned there were salient differences in the perceived levels of importance. Specifically, attention is drawn to the work goals of *opportunity to learn new things*, *promotion*, *salary*, *internal personal relationships* and *job security*, which are shown in Table 2.

Comments from the focus groups also assisted in clarifying the likely causes for consensus within the two countries across demographics. For example, the focus groups expressed foundation for the relative importance of the work goal of *autonomy* across managerial levels. They explained executive managers reported a higher

preference as it afforded them institutional control, face and opportunity to further enhance their *guanxi* in business engagements, whereas supervisory managers had less opportunity in these activities, and thus, had higher preferences for work goal of *interpersonal relationships*. Representatives of the focus groups suggested the relative consensus of work goal preferences is a reflection of the facilitation of shared knowledge and innovation in systems that are designed to meet continuous improvement and global customer expectations. Nevertheless, there are some variations in work goal preferences across demographics as the respondent managers are at a stage of balancing traditional core beliefs with the realities of the competitive market arena. These differences in work goal priorities across demographics flag some choices and priorities of managers in a contemporary globalised world.

## Discussion

This study examined the work goal preferences of 409 managers from the Maldives and Mauritius where there is increasing attention on how to embrace global issues. The study findings reveal the exigencies of these work settings such as responsiveness to customer expectations, the delivery of servicing management company wide, and facilitation of business sustainability are reflected in the respondents' work goal preferences. Indeed, there was a substantial convergence on the perceived importance of a number of work goals. The most preferred work goal was *learning new things*, an expected outcome given the onus on managers to acquire a plethora of skills, talents, competencies as well as vital knowledge necessary for activities that govern day-to-day servicing operations.

Finding the work goals of *interesting work* and *matching of job requirements with incumbent ability and experience* were ranked relatively high is indicative of attributes of a customer service culture. Work places that are challenging and require managers to come to terms with new techniques, processes and approaches place considerable demands on job holders, but such contexts are also likely to be interesting. Moreover, service excellence is grounded in managerial competence in a variety of specialised functions (cultural diversity, task, technology). Understandably, the respondents acknowledged the importance of features of the job and the skill competence of the job incumbent.

A major skill and competency required of those who participate in systems of economic development is collaborative engagements. These are essential attributes for sustaining partnerships between managers and customers for facilitating core servicing relationships to promote and maintain corporate health. An observation of the relatively low ranking of the work goal of interpersonal relations, which scholars have contended is a distinctive dimensions of service settings is to be appreciated in terms of respondent ethnicity. All the managers were working in high context cultures. Arguably, the ubiquity of networking diluted the perceptual importance for processes that were relatively common place in the daily work activities of the surveyed managers.

In addition to the extent of consensus for the relative importance of work goals there were also substantial divergences. There were significant variances in importance between the findings of this investigation and those reported in the seminal MOW study. It has been suggested these contrasts were often the congruencies of the different servicing regimes of traditional and contemporary companies. Furthermore, the extent of consensus for work goal preferences across demographics was examined. Explanations given by the focus groups to account for variations in perceptual preferences inferred economic issues (and inherently global issues) received higher importance than the traditional organisational ambitions in terms of local priorities.

## Conclusion

The primary purpose of this investigation was to establish the relative preference of 11 work goals as perceived by Maldives and Mauritius managers. These respondents were engaged in work settings impacted by global trends. In such landscapes managers are increasingly being compelled to confront and cope with task uncertainty, unpredictability of consequences, crises and a range of closely related global issues. Today managerial work has become more complex, abstract, and knowledge based as an outcome of change in global market dynamics, and a reshaping of political, social, economic and cultural dimensions of industrial society. Dealing with these challenges demands both holistic and systematic approaches in ever changing contexts. The evidence of this study that the

managers, irrespective of country, gender, age or managerial level held a high priority for access to educational opportunities and life long learning is not to be unexpected. Moreover, that learning was of considerably higher preference, while salary was significantly less relevant than was reported some two decades earlier by the seminal Meaning of Working study, might arguably, be contended are inevitable and irreversible feature of globalisation. A salient inference of the findings of this study is that as nations intensify engagement in the global economy new orders of HRM policies and practices that address lifestyle and workplace preferences will be required.

The evidence of this study suggests a major challenge for global organisations will be how to develop strategies for sharing learning across international sites. Indeed, facilitation of knowledge, leadership and vocational training at intra and inter organisational levels is likely to be a prominent feature of successful global corporations. For instance, HRM practices are likely to include preparation of employees for overseas assignments (prior to departure and after return), the building of international teams as well as developing cultural competencies. As the phenomena of globalisation is both inevitable and irreversible HRM will continue to have a significant continuing presence as corporations embrace social, political, economic and cultural perspectives that are closely related to global issues.

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## End Notes

Respondents are required to rank in order (1 = first to 11 = least) the importance of each work goal for their work life.

- A. A lot of opportunity to learn new things.
- B. Good interpersonal relations (supervisors, co-workers).
- C. Good opportunity for promotion.
- D. Convenient work hours
- E. A lot of variety
- F. Interesting work
- G. Good job security
- H. A good match between your job requirements and your abilities and experience.
- I. Good pay/salary.
- J. Good physical working conditions (such as light, temperature, cleanliness, low noise level).
- K. A lot of autonomy (you decide how to do your work).

Source: Harpaz, 1990; *MOW*, 1987.

## Appendix

TABLE 3: WORK GOAL MEANS AND RANKS ACROSS COUNTRIES AND BY GENDER

	n	Opportunity to learn	Promotion	Interesting Work	Salary	Good Match skills/task	Autonomy	Interpersonal skills	Security	Variety of tasks	Convenient Hours	Work Conditions
Maldives												
m	118	4.21 <sup>2</sup>	5.03 <sup>5</sup>	4.17 <sup>1</sup>	7.20 <sup>9</sup>	4.35 <sup>3</sup>	6.48 <sup>7</sup>	4.86 <sup>4</sup>	7.79 <sup>10</sup>	6.31 <sup>6</sup>	8.46 <sup>11</sup>	7.08 <sup>8</sup>
f	90	3.14 <sup>1</sup>	6.18 <sup>5</sup>	3.94 <sup>2</sup>	8.33 <sup>11</sup>	4.58 <sup>4</sup>	6.43 <sup>7</sup>	3.99 <sup>3</sup>	7.47 <sup>8</sup>	6.18 <sup>6</sup>	8.04 <sup>10</sup>	7.59 <sup>9</sup>
Mauritius												
m	149	4.11 <sup>2</sup>	6.09 <sup>7</sup>	3.01 <sup>1</sup>	6.46 <sup>8</sup>	4.30 <sup>4</sup>	4.28 <sup>3</sup>	5.90 <sup>5</sup>	8.21 <sup>10</sup>	5.92 <sup>6</sup>	9.63 <sup>11</sup>	8.10 <sup>9</sup>
f	52	3.27 <sup>1</sup>	6.27 <sup>7</sup>	4.02 <sup>2</sup>	8.21 <sup>9</sup>	4.35 <sup>3</sup>	4.56 <sup>5</sup>	4.54 <sup>5</sup>	8.27 <sup>10</sup>	6.06 <sup>6</sup>	8.90 <sup>11</sup>	7.52 <sup>8</sup>
MOW												
m	4573	8	11	1	2	6	4	3	5	7	9	10
f	2736	5	11	1	3	4	9	2	6	8	7	10

Notes: a. n = number of respondents, m = male, and f = female.  
 b. The superscripts denote the rankings of the work goals.  
 c. MOW = Meaning of working study (MOW, 1987), gender work goal rankings.

TABLE 4: WORK GOAL MEANS AND RANKS ACROSS COUNTRIES AND BY MANAGERIAL LEVELS

	n	Opportunity to learn	Promotion	Interesting Work	Salary	Good Match	Autonomy	Interpersonal	Security	Variety	Convenient Hours	Work Conditions
Maldives												
Executive	92	3.82 <sup>2</sup>	5.84 <sup>5</sup>	3.72 <sup>1</sup>	7.95 <sup>10</sup>	4.02 <sup>3</sup>	5.93 <sup>6</sup>	4.98 <sup>4</sup>	7.86 <sup>9</sup>	6.13 <sup>7</sup>	8.64 <sup>11</sup>	7.08 <sup>8</sup>
Middle	80	3.50 <sup>1</sup>	4.95 <sup>5</sup>	4.34 <sup>3</sup>	7.75 <sup>10</sup>	4.73 <sup>4</sup>	6.76 <sup>7</sup>	4.01 <sup>2</sup>	7.59 <sup>8</sup>	6.34 <sup>6</sup>	8.33 <sup>11</sup>	7.65 <sup>9</sup>
Supervisory	36	4.14 <sup>1</sup>	6.00 <sup>5</sup>	4.49 <sup>3</sup>	6.92 <sup>7</sup>	4.92 <sup>4</sup>	7.14 <sup>9</sup>	4.25 <sup>2</sup>	7.25 <sup>10</sup>	6.36 <sup>6</sup>	7.25 <sup>11</sup>	7.11 <sup>8</sup>
Mauritius												
Executive	157	3.94 <sup>2</sup>	6.02 <sup>7</sup>	3.11 <sup>1</sup>	6.99 <sup>8</sup>	4.28 <sup>4</sup>	4.22 <sup>3</sup>	5.54 <sup>5</sup>	8.19 <sup>10</sup>	5.97 <sup>6</sup>	9.63 <sup>11</sup>	8.12 <sup>9</sup>
Middle	33	3.88 <sup>2</sup>	6.67 <sup>8</sup>	3.76 <sup>1</sup>	6.36 <sup>7</sup>	4.30 <sup>3</sup>	4.76 <sup>4</sup>	5.91 <sup>6</sup>	8.33 <sup>10</sup>	5.45 <sup>5</sup>	8.97 <sup>11</sup>	7.61 <sup>9</sup>
Supervisory	11	3.18 <sup>1</sup>	6.18 <sup>6</sup>	4.09 <sup>2</sup>	7.36 <sup>9</sup>	4.73 <sup>4</sup>	4.91 <sup>5</sup>	4.55 <sup>3</sup>	8.36 <sup>11</sup>	7.27 <sup>8</sup>	8.18 <sup>10</sup>	6.55 <sup>7</sup>

Notes: a. n = number of respondents.  
 b. The superscripts denote the rankings of the work goals.

TABLE 5: WORK GOAL RANKS ACROSS COUNTRIES BY AGE

	n	Opportunity to learn	Promotion	Interesting Work	Salary	Good Match	Autonomy	Interperson al	Security	Variety	Convenient Hours	Work Conditions
Maldives												
< 30	70	1	5	3	7	4	8	2	10	6	11	9
30-39	74	1	5	2	10	3	7	4	9	6	11	8
40-49	55	1	6	2	8	3	5	4	11	7	9	10
> 49	9	3	6	1	8	2	5	4	9	10	11	7
Mauritius												
< 30	17	1	6	2	8	5	7	3	11	4	10	9
30-39	50	2	7	1	8	4	3	5	10	6	11	9
40-49	65	3	7	1	8	2	4	5	10	6	11	9
> 49	69	2	5	1	8	4	3	6	10	7	11	9
MOW												
<31	2326	5	11	1	2	6	4	3	8	7	9	10
31-50	3987	9	11	1	2	4	6	5	3	7	9	10
>50	1596	10	11	1	2	5	7	3	4	6	9	8

Notes: a. n = number of respondents.

b. MOW = Meaning of working study (MOW, 1987), age work goal ranking.

# **Developing Measurements of Intellectual Capital in Venture Capital Industry in Taiwan by the Analytic Hierarchy Process**

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## **Abstract**

Taiwan venture capital industry has played a critical role in the rapid development of Taiwan's IT industry. The purpose of this research is to construct the intellectual capital indicators of venture capital industry in Taiwan. In-depth interviewed was used to collect data. Content analysis and analytical hierarchy process were used to analyze data. According to the results, the study divides the intellectual capital into three dimensions: Human Capital, Relational Capital, and Process Capital. The research also develops 12 indicators for business intellectual capital assessment. Measuring intellectual capital also can be used to help formulate business strategy of strategic map.

## **Introduction**

Taiwan venture capital industry has played an important role in the fast development of Taiwan's IT industry. Many of the most successful high-tech companies are applying management models used by venture capitalists to find and fund good ideas quickly (Chen, Chen & Liu, 2003). The role of venture capital has increased strongly in the world of business. Venture capital funds, which invest money solely on the basis of an entrepreneur's promising idea and its potential return on investment, provide a critical capital source for small and growing enterprise (Harris & Boverid, 1996). Empirical studies show that the so-called knowledge-intensive companies have a market value that is significantly higher than their book value of equity (Hansson, 1997). Some generative intangibles, which include human capital, internal and external structures, are called intellectual capital (Bontis, 2002). The growth in the topic of intellectual capital has arisen commensurate with the ascendance of the information age and the virtual economy (Litan & Willison, 2000; Blair & Wallman, 2000). As many authors point out, a major proportion of growth companies are valued beyond book value. The market value of a firm consists of its financial capital and "something else". The first term is the firm's book value and is formed by organizational financial and physical assets. The "something else" term represents the firm's intellectual capital, defined as resource created from internal learning and development of valuable relationships (Pablos, 2002). Stewart (1997) defines intellectual capital as "the intellectual material- knowledge, information, intellectual property, experience-that can be put to use create wealth." Intellectual capital provides firms with a huge diversity of organizational values such as profit generation, strategic positioning (market share, leadership, name recognition, etc.), acquisition of innovations from other firms, customer loyalty, cost reductions, improved productivity and more. Successful firms are those that routinely maximize the value from their intellectual capital (Pablos, 2002). To sum up, the purpose of this research is to construct the intellectual capital indicators of venture capital industry in Taiwan.

## **Literature Review**

### **Venture Capital**

Based on a survey of Singapore venture capital firms, Wang & Ang (2004) find that environment, resource-based capabilities, strategy, and venture capital firms' involvement affect the venture performance significantly. Liu, Chen & Chen (2004) used a process perspective to identify the uncertainty the risks facing are emerging at a number of levels and areas. According to the result, in the funding raising stage, the risk management policy emphasis on clear funding goals, trusts build. In the deal generation stage, the risk management focused on guanxi set up, carefully recruit and select good partners. Using account audit and internal audit to help evaluate related proposal plays an important roles in screening/analyzing. Choosing the making money industry is essential for investment stage. At

last, negotiation, management buy-out is good methods for risk management is the process of venture capital.

### **Intellectual Capital**

Stewart (1997) defines intellectual capital as “the intellectual material- knowledge, information, intellectual property, experience-that can be put to use create wealth..” Nahapiet & Ghoshal (1998) defined intellectual capital as “the knowledge and knowing capability of a social collectivity, such as an organization, intellectual community, or professional practice.” Intellectual capital represents a valuable resource and a capability for action based in knowledge and knowing. The importance of managing intellectual capital is highlighted by empirical observations from 11 Swedish firms with a long experience of successfully measuring and managing intangibles These firms demonstrate that a number of managerial processes have gradually evolved to secure the transformation of the measurement results into necessary action (Guthrie, Petty & Johanson, 2001). Intellectual capital will be key in determining organization value and performance. Generally the literature has identified three sub-phenomena that constitute the concept of intellectual capital: human capital, relationship capital, and organizational capital (Bontis, 2002). Human capital represents the individual knowledge stock of an organization as represented by its employees (Bontis, Crossan & Hulland, 2002). Relational capital represents the relationships with internal and external stakeholder (Roos, Roos, Edvisson & Dragonetti, 1998). Organizational capital is defined as the knowledge that stays within the company at the end of the working day. According to Bontis, Chong & Richardson (2000), it includes the databases, organizational charts, process manuals, strategies, routines and anything whose values to the company is higher than its material value. On the other hand, organizational capital can be broken down into innovation capital and process capital. Innovation capital refers to the explicit, packaged result of innovation in the form of protected commercial rights, intellectual capital and other intangible resources and values. Process capital is the combined value of value- creating and non-value-creating processes (Skandia,1996). Stovel & Bontis (2002) suggested that intellectual capital is divided three component categories: human capital, structure capital, and customer capital. Human capital is the cumulative tacit knowledge of employees within a firm. It is a combination of four factors: genetic inheritance, education, experience, and attitudes about life and business (Choo & Bontis, 2002; Hudson,1993). Structural capital is the support mechanism for employees to achieve optimum job performance and overall organizational performance (Bontis,1998). Customer capital is the tangible rapport and synergies created interpersonally both within the organization and externally (Stovel & Bontis, 2002). As Roos, Roos, Evisson & Dragonetti (1998) mentioned intellectual capital is the latest development in the line of research. The theoretical roots of intellectual capital come from two different streams of research: strategy & measurement. While the first stream studies are knowledge creation, acquisition, diffusion, capitalization, conversion, transfer and storage; and the second stream of research focuses on the measuring of intellectual capital. The second stream has advanced towards the elaboration of intellectual capital reports and the building of international standards on intellectual capital measuring and reporting (Pablos, 2003). By the purpose of this research, it focuses on the second steam of research: measuring and reporting the sequence of intellectual in venture capital industry in Taiwan.

### **Methods**

For getting the content of intellectual capital, this study gathered data from seven venture capital companies. In-depth interviewed, content analysis, and analytical hierarchy process were used to collect and analyze data.

### **Sample**

The research uses convenience sampling to collect data. Seven responsive companies are selected. General Open-ended questionnaire was interviewed and asking interviewees about the competitive advantages of their companies in the long term. The research reported here found that research participants’ perceptions of their own and other’ behaviors can be represented under broadly the same headings. A total of 8 persons ranged in age from 30 to 45 with a mean of 38. 62.5% of the respondents are male. 37.5% of the respondents are female.

### **Data Analysis**

Data analysis of this qualitative study used the content analysis method (Berelson,1952). Content analysis techniques may be applied to study the content of any book, magazine, newspaper, individual story or articles, motion picture, news-broadcast, photograph, cartoon, comic strip, or a series of combination of any of these. Holsti (1969) defined content analysis is any technique for making inference by objectively and systematically identifying specified characteristics of messages. Berelson (1952) defined content analysis as “a research technique for the systematic, objective, and quantitative description of the manifest content of communication” (P.18). The goal of

content analysis research is to present a systematic and objective description of the attributes of communication. These data may be used to make inferences about communicators. April, Bosma & Deglon (2003) also used a content analysis in accordance with a selected intellectual capital framework consisting of 24 indicators across the three categories of internal, external and human capital.

### **Categories of Analysis**

The researchers used some concepts of literatures (theory of reasoned action, economic exchange theory ...etc) and check the content of 8 persons form in-depth interview records. This study developed three major factors by above a conceptual framework: 1. **Human capital:** Human capital is the cumulative tacit knowledge of employees within a firm. It is a combination of four factors: genetic inheritance, education, experience, and attitudes about life and business (Choo & Bontis, 2002), the elements of human capital of this study are including group's tacit understanding, expertise of leading, partnership, and professional knowledge; 2. **Process Capital:** Process capital is the combined value of value- creating and non-value-creating processes (Skandia,1996); 3. **Relational Capital:** Relational capital is the knowledge that is linked with external relationships of the firm, such as government (Chaminade & Johanson, 2003), the elements of structural capital of this study are including internal standard operation procedure, and external operation process .

### **Unit of Measurement**

This study is used theme as unit of measurement. According to categories as mention above, we have 60 themes. Random sampling 20 themes from 60 themes is to do pretest. By researcher, two venture capital managers, and a university college teacher, the result shows the common consensus. Furthermore, we discuss the reliability of our study.

### **Degree of Mutual Agreement and Reliability**

Sampling 20 themes from 60 themes to count the degree of mutual agree by three coders. Using the result of coding to a formula.  $[2M/(N+O)]$ , M: all agree numbers , N : coder 1 agree; O : coder 2 agree] to get the degree of mutual agree. The average mutual degree of this study by three coders is 0.8. So, We get the acceptable reliability of this study is 0.923. Later, this study used 60 themes to calculate the average mutual degree is 0.82. The reliability (0.93) of 60 themes in this study is acceptable. According to the content of coding, we use the results to run analytical hierarchy process.

### **Analytical Hierarchy Process**

The data in this study were analyzed using a multi-criteria decision making approach called the analytical process (AHP). The Analytical Hierarchy Process, developed by Thomas L. Satty (1977), addresses many of the problems mentioned above. Expert Choice, Inc, one of the vendors of AHP software, reports thousands of installations of its namesake product on PCs around the globe. Satty (1994), the founder of AHP, claims that AHP is, "... natural to our intuition and general think," which combines logic and intuition, and take advantage of our ability to rank choices. Many articles have been written on the successful implementation of AHP in various environments that involve a selection or decision (Liberatore & Miller, 1995). Software implementation of the AHP, such as Expert Choice (1995), provides a variety of verbal, numeric, and graphical comparison method. The judgment inconsistency coefficient should be under 0.1.

### **Results**

This paper is intended to identify what are the content of intellectual capital of venture capital companies in Taiwan. According to these purposes, this study will show the results as follows.

TABLE 1 PRIORITY AND SEQUENCE FOR LEVEL 1 AND LEVEL 2 CRITERIA FOR INTELLECTUAL CAPITAL

Criterion	Items	Priority weight	Sequence	
Intellectual Capital	Human capital		3	
	Process Capital		2	
	Relational Capital		1	
		Inconsistency index: 0.00		
	Human Capital	Group's tacit understanding	0.064	4
		Expertise of leading	0.161	3
		Employees' professional knowledge	0.209	2
		Work teams	0.571	1
		Inconsistency index: 0.04		
	Process Capital	Law & regulatory	0.076	4
		Risk assessment	0.285	2
		Internal decision-making quality	0.384	1
External control system		0.254	3	
	Inconsistency index: 0.04			
Relationship Capital	Market sensitivity	0.211	2	
	Targeting right objectivities	0.510	1	
	Involving managerial activities	0.147	3	
	Good relationship between government and business	0.132	4	
		Inconsistency index: 0.07		

According to the results, the priority of frequency in first level is human capital (including group's tacit understanding, expertise of leading, employees' professional knowledge, and work team), process capital (including law & regulatory, risk assessment, internal decision-making quality, and external control system), relationship capital (including market sensitivity, targeting right objectivities, involving managerial activities, and good relationship between government and business). With regard to the indicators, first, the human element has grown in importance because knowledge has become a critical ingredient for gaining a competitive advantage, particularly in the new economy landscape (Grant,1996). Firm performance can be enhanced by the way in which firms use human resources in the development and implementation of their strategies (Wright, Smart & McMahan,1995); second, venture capital companies should pay attention to their customer's complaint and satisfy their needs; third, structural capital, venture capital companies should set up their internal and external standard operation procedure to improve their efficiency; fourth, service capital, venture capital companies should schedule their project management execution and provide customized service. Finally, innovation capita, due to external challenges necessitating high degree of innovation and customization without sacrificing cost and quality, many industrial firms need to transform their entire approach to product development (Drejer, 2003). Yang (2004) suggests that the speed of knowledge acquisition and the availability of knowledge dissemination facilities affect the cycle time and new product development and, thus, contribute to the improvement of financial performance. Innovation- technology significantly moderates the negative impact of speed on performance.

## Conclusion and Suggestions

This study is exploring to the value of venture capital industry by management perspective. "Intellectual Capital" was a popular issues and discussed at everywhere of the world nowadays. There are many discourses published from abroad, but it's just on the beginning at Taiwan. The purpose is to explore the construction of intellectual capital indicators of venture capital industry .In order to construct relevant measurement indicators; this study collected data from top managers of venture capital companies. In-depth interviewed, content analysis, and analytical hierarchy process were used to collect and analyze data. According to the results, the study divides the intellectual capital into three dimensions: human capital, process capital, and relational capital. It also developed 12 indicators for business intellectual capital assessment. The study refines and constructs the intellectual capital assessment model by cases

study of venture capital industry in Taiwan. The result shows the current situation about intellectual capital of the case and provides a reference to improve competitive advantages. However, intellectual capital is a complex, intangible subject and there can be no doubt that some errors by researcher's subjective and venture capital companies. This study is still exploratory in nature, as it is the first attempts to investigate intellectual capital reporting practice of venture capital industry in Taiwan, and further work needs to be done in several ways. As the sample used is quite small, the first step is would be use a larger sample in order to allow the inclusion in the analytical hierarchy process model. A second step would be to extend the analysis on a longitudinal basis aiming to monitor the progress and development of intellectual capital reporting practices. Measuring intellectual capital also can be used to help formulate business strategy of strategic map (Marr, Gray & Neely, 2003). These indicators also provide some evaluation base for venture capitalists for another country and allocate some resources for venture capital companies.

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# Local Business Development by Global Management Standards: A Content Analysis of Mission Statements from Selected Malaysian Plantation-Based Companies

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## Abstract

This paper studies one such practice in the area of management, on the micro-level of plantation-based companies in Malaysia. It is widely recognized by managers and academics as the first step in strategic planning because business is not defined by its name, statutes or articles of companies - but by its mission. Only a clear definition of the mission and purpose will make companies able to develop clear and realistic business objectives. This study found, thirty-one (31) or (79.5%) of thirty-nine (39) companies listed under the plantation sector of the Malaysia Bourse's main board have no mission statements. The eight (8) companies with mission statements want "to be a responsible corporate citizen" (18.8%), "to exceed customer expectation" (12.5%), "to enhance shareholders value" (12.5%), and "to provide opportunity for career advancement" (9.4%). These issues were identified as the most popular issues of the nineteen (19) being studied. Overall, the findings clearly indicate a lack of strategic management practices among companies in the plantation sector in Malaysia. This suggests, despite an image of rapid development, Malaysia is likely to lag behind - at least in the plantation-based company sector. If this is any generalisable indication for Malaysia management practices across the board, implications will be grave for long-term Malaysian development prospects. Further studies will be required to see if that indeed is the case - or the plantation sector studied here is only an aberration.

## Introduction

In these times of rapid globalization, economic development in any one country is invariably linked with development maximization practices across the globe. This is because, businesses in any one country increasingly will have to compete globally, and standards for success or failure also will be global. This is true both at the macro- and the micro- levels. This paper studies one such practice in the area of management, on the micro-level of plantation-based companies in Malaysia. The practice we like focus on here, is the formulation, and pursuance of business-firms' mission statements.

On the global level, in the practice of the most advanced businesses in most advanced economies, mission statements are seen as inseparable part of companies' strategy because they have an impact on performance. In fact, in a research by Bain *et al* (1996) suggests that mission statements are one of the most important and popular management tools these days. It defines the purpose of the organization, and acts as the medium that guide people within the organization so that they can work independently and collectively to achieve desired levels of companies' performance (Kotler *et al.* 1996). Organizations programs must be defined broadly enough to provide performance targets, and direct resources to achieve synergy, providing realistic frameworks for forecasting strategic planning and objective setting (Abell *et al.*, 1980).

The available literature on the subject also strongly indicates that mission statements are important to the development of corporate strategy, culture, believe, and values, the integration of employees, and the performance outcomes of companies. It also regarded as the most critical starting point for almost every major strategic initiative in modern management like re-engineering, TQM, and self directed works team (Bart, 1997). Well-defined mission statements are supposed to answer questions such as: why do we exist; what is our business; what do we want to become? When these questions clearly answered, then only a mission statement managed to distinguish a company's unique, enduring and dynamic purpose (Bart, 1999, 1996; Ireland and Hitt, 1992; Klemm *et al.*, 1991; Want, 1986).

However, many companies even in advanced economies like that of the US do not have mission statements. In a research by Jill et al. based *Business Week* found that 59 percent of the 1,000 companies did not have mission statements (1996). If such is the scenario even with substantial number of firms in the US, it certainly indicates a need for research into the situation with mission statements in companies in Malaysia – on whom there is hardly any information available to give any idea at all.

It is view of considerations such as above, that the research for the present paper was conducted, with companies listed under the plantation sector of the Malaysia Bourse's main board were used as samples. The main reason for us choosing firms from this particular sector was this sector's long relationship with the rise and fall of the Malaysian economy. It indeed is the sector that was known as the backbone for the country's economy for many years, before the rather recent shift of the focus of the economy to the manufacturing sector.

Like all dynamic companies, Malaysian companies also have to prepare and strive in today's business environment that is no doubt is competitive in nature. Globalization has definitely "shifted" today's business context to a new paradigm. Survival, growth, and prosperity seems belong to those who are proactive and dynamic. Failure to do so, or reluctance to change, will lead to a greater degree of risk of being eliminated from the market. Constructing and using a mission statement can generate and foster a focus on common objectives, a shared value system and culture, teamwork, behavioral guidelines, emotional commitment and resources allocation of a company. More and more companies have changed their management practices concept from ad-hoc based, or emergent planning based management - to one of strategic management. The main advantage of this strategic management concept is its capability to combine arts and sciences - facts with experience and intuitions - of management together into one whole. This involves including a mission statement in this total whole.

As we see that, existing literature on the subject strongly indicates that development of suitable and concrete mission statements is an essential part of globally succeeding management practice. Such mission statements are important for the development of corporate strategy, culture, beliefs, and values, the integration of employees, and the performance outcomes of companies. It is widely recognized by managers and academics as the first step in strategic planning because business is not defined by its name, statutes or articles of companies - but by its mission. Only a clear definition of the mission and purpose will make companies able to develop clear and realistic business objectives. To go by the existing the literature on the subject, both academic experts and hands-on practitioners very much agree that mission statements are critical to companies' survival, growth, and prosperity. Good mission statement holds a very crucial role in companies' planning processes - especially in the companies that believe in the effectiveness of the strategic planning as a useful management style to enhance their performance. Top management has the full responsibility to develop and bridge them with the company's other strategic tools, such as its vision statement. (Haim, 2005; Greengarten-Jackson, J. *et al.* 2002; Dymowski *et al.*, 1992; Lammers, 1992; Calfee, 1993).

A research by Bain and Company survey (1999) of Management Tools and Techniques has ranked mission statement as the first important factor for their business performance, for the period between 1993 and 1997. While in a research conducted by Rigby (1994) on 500 US managers found the mission statement was the most used tool out of 25 tools reported by respondents. Bart *et al.* (2001) also found that mission statements could influence companies' financial performance.

Failure to provide adequate thought to business purpose and mission statements was perhaps the most important reason in both managerial frustration and business failure (Drucker, 1974). Researchers like Abell (1980), McGinnis (1981), Pearce (1986), Ackoff (1986), Want (1986), Campbell and Tawadey (1992), Fred (1996) – all of them - have strongly emphasizes of mission statement in guiding company.

#### **Purpose**

In terms of strategies for strengthening companies' competitiveness, this research focuses on one aspect of the strategic planning tool - company's mission statement, in case of any given company. A mission statement is one of the most crucial strategic tools for better management practices. It is widely recognized by both academics and managers as the first step in strategic planning (Haim, 2005; David, 2004).

The importance of a mission statement for business is great. A business is not defined by its name, statutes or articles – rather, it is defined by its mission. Only a clear definition of the mission and purpose will make the organization able to achieve clear and realistic business objectives (Drucker, 1973). Research has indicated that

characteristics of mission statements have been related to companies' performance (Pearce and David, 1987). However, most of the previous empirical studies of mission statements have focused mainly on companies in western countries only. Despite the awareness on the contribution of the mission statements to companies' performance, very little empirical studies have been conducted to examine companies from this aspect in Malaysia particularly. To alleviate this lacking in the existing literature, we undertook to conduct and follow through this particular this research. For this, all companies listed under the plantation-based sector of the Malaysia Bourse's main board. As such, this research initiates an attempt to discover the characteristics of mission statements of the plantation-based companies that are listed in the main board of the Malaysia Bourse. In particular, this research attempts:

1. To identify the distribution of companies with and without mission statements from amongst the companies those are listed under the plantation sector of the Malaysia Bourse's main board.
2. To determine the issues addressed by the mission statement of each company that does have a mission statement – from amongst the companies that are listed under the plantation sector of the Malaysia Bourse's main board.
3. To determine the most popular issues addressed in their mission statements by the companies, which do have mission statements – from amongst the companies that are listed under the plantation sector of the Malaysia Bourse's main board.
4. To derive some generalizable tentative conclusions from the above three steps.

#### **Significance**

It is hoped that, proceeding from the purposes such as noted above, the finding from this research would be useful for all companies in the plantation sector, as well other sectors, in Malaysia. Extrapolations therefore might be relevant and useful for similar sectors elsewhere as well. Specifically, this study will generate the following benefits:

1. The findings are believed to be useful in providing an insight into the nature of the mission statements of plantation-based companies.
2. The outcomes are expected to be useful in helping companies in making better strategic planning.
3. The research could provide information concerning the current state of the art of mission statements among plantation-based companies listed in the Malaysia Bourse.

#### **Scope**

As noted, the research here focuses on plantation-based companies listed in the main board of the Malaysia Bourse. Altogether, thirty-nine (39) companies are listed under the sector, and were used for this study. Thematically, it focuses on mission statements only.

#### **What is a Mission Statement?**

We did mention a few times the term mission statement, while talking about its importance. One assumes, the broad meaning of the phrase is generally understood by experts and lay alike. But let us now see the various technically narrowed down definitions of mission statements made by both academic experts and hands-on practitioners of business performance. Information in this part of this paper is important in explaining and enhancing the important need to research mission statements and its contribution to companies' performance.

There are many technical definitions of mission statement in strategic management school of thought available in existing literature, but no one definition has been universally accepted. There are many prescriptions, which can be fundamental to companies' strategic planning. A mission statement might be seen as one such kind of prescription. Theoretically, the research on mission statements began in the early 1970s, and Drucker (1971) define them as a tool for "clear and realistic business objectives". A mission statement explains a company's present business scopes and purposes, while the vision statement is chiefly about the company's future (Haim, 2005; Strickland *et al.*, 2004, Zainal, 1998).

David (2004) has advocated nine essential component of mission statement such as customer, product or service, markets, technology, concern for survival, growth, and prosperity, philosophy, self-concept, concern for public image, and concern for employees.

Tahir and Howard (2003) research, based on Lynch (2000), suggests that - since no two companies are the same, so the mission statement for each to each company is unique to itself. Yet, there are some common features for mission statements of all companies. For example, a good mission statement is the one that has one or more

SMART criteria. SMART means S: Specific, M: Measurable, A: Achievable, R: Realistic, and T: Timely. Want (1986) indicates that a mission statement is one, which tells the purpose, principal business aims, corporate identity, policies and corporate values of any given company. Pearce (1982) also says that the contents of mission statement would include company philosophy, target customers, principal, geographical domain, core technology, product/services, commitment to survival, public image, self-concept, growth, profitability, and core technology. Furthermore, Abell (1980) suggests that a mission statement answers the question “What is our business?” – and the answer could be through three different perspectives:

1. “What are the customer groups that are being satisfied by the company?”
2. “What needs are being satisfied?” and
3. “How are the needs being satisfied?”

Carolyn (1997)’s research, based Ackoff (1986) and Campbell and Yeung (1991), suggests a mission statement should contain goals, differentiation factors, the companies’ aspirations, role of all stakeholders, and behavior standards.

Hitt *et al.* (2005) describe mission statement, as a company’s unique purpose and the scope of its operations in terms of products it intends to produce and markets it will serve using its core competencies. A good mission can become as an effective tool in inspiring stakeholders.

Wheelen and Hunger (2004) describe mission statement as the very reason for the company’s existence. It tells the types of products a company offers to the society. An effective mission statement defines the fundamental, unique purpose that sets the company apart from other companies of its type clearly. Charles *et al.* (2004) noted mission statement as a key indicator of how a company views the claim of its stakeholders and makes formal commitment to them. Fred (2003) indicates that that practitioners agreed that an effective mission statement to have the following:

1. Who are the firm’s customers?
2. What are the firm’s major products or services?
3. Where does the firm compete?
4. Is technology a primary concern of the firm?
5. Is the firm committed to economic objectives of survival, growth, and profitability?
6. What are the basic beliefs, values, aspirations, and philosophical priorities of the firm?
7. What is the firm’s distinctive competence or major competitive advantage?
8. Are the firm responsive to social, community, and environmental concerns?
9. Are employees, considered to be a valuable asset for the firm?

Table 1 shows the list of components thought and suggested by several researchers to be important as components of a mission statement.

TABLE 1: COMPONENTS OF MISSION STATEMENTS

Abell (1980)	Satisfied customer group, satisfied needs, how the needs are satisfied.
McGinnis (1981)	Define organization, organizational aims, flexible, should evaluate current and prospective activities, clearly interpreted.
Pearce (1986)	Target customer, market, products and services, geographical domain, core technology, survival, growth, profitability, company philosophy, self-concept, public image, employees.
Ackoff (1986)	Goals, differentiation factors, organizational aspirations, role of all the stakeholder groups.
Want (1986)	Purpose, business aims, corporate identity, company policies, and values.
Campbell and Tawadey (1992)	Customers, products/service, location, technology, survival, philosophy, self-concept, public image, employees.
Fred (1996)	Customers, products, markets, technology, survival, growth, profitability, philosophy.
Total Research, Service (1999)	Customer care/focus, products and service quality, leadership competitiveness, Strategic Marketing innovations, staff focus, social responsibility and shareholder value.
Lynch (2000)	Specific, distinctive, realistic/attainable, and flexible.
Frequent attributes	Customers, product/service, technology, market, survival, growth, profitability, company philosophy, differentiation factors, image, values, leadership, stakeholders, clarity, and social responsibility.

Source: Tahir and Howard (2003), Mission statement exposed. pp258

#### The Role of Mission Statements in Strategic Planning

We noted earlier that forward looking companies succeeding on the global level have shifted from ad-hoc based planning to strategic planning for their businesses. Mission statement is the foundation of strategic planning, and business strategies cannot be developed until fundamental decisions are made – and articulated in mission statements - about the business the company is in (McTavish, 1995). Mission statements provide the foundation for strategic planning which is important in ensuring planning is to be successful (Lipton, 1996). They are the basis for setting companies objectives (Bart et al., 2003). They drive companies’ priorities and intellectual capital development and enhancement (Bontis, 1996, 1999, 2001, 2002, 2003).

Since 1980s, the mission statements have been used heavily as to communicate the kind of relationships with a company’s major stakeholder groups (Campbell, 1997). However, not all mission statements created positive contributions, in other words, it is possible to have “good” and “bad” mission statements (Bart and Bontis, 2003).

As one of the most important strategic management tools in setting the overall direction for companies, mission statements are crucial for the field of corporate governance. Corporate governance is the system used to navigate and control business companies (OECD, 1999). As such, corporate governance has become fundamental to activities conducted in the companies. Within this system, the board is responsible in monitoring the company’s mission, vision, and strategy. Failure to do so will jeopardize any effort towards achieving the companies’ targeted objectives.

Logical deduction suggests that mission statements would have great impact on the performance of firms. However, on the level of empirical research, as Bart et al. (2001) acknowledge, very little empirically conclusive information is available about the relationship among various mission constructs. However, basing on whatever information is available, Pearce and David (1987) successfully demonstrate a strong relationship between three mission components (i.e. organizational philosophy, self –concept, and public image) on the one hand, and firm performance on the other. However, Bart (1997) found weak relationship between missions content to five performance outcomes (ROA, ROS, percentage change in sales, percentage change in profits, and influence of mission on employees’ behavior). The main reason for the fact that not much empirically conclusive information is available on mission statements’ contribution to companies’ financial performance is that, researchers focused too much on identifying mission statements’ content only (Pearce, 1982, Pearce and David, 1987; David, 1989, 1993; Klemm et al., 1991, Ireland and Hitt, 1992, Bart et al., 2001).

When Bart (1999) examined 103 Canadian Hospitals, he found a strong relationship between the contents of the mission statements on the one hand, and the “degree of satisfaction with the mission”. Same was found to be true between the contents of the mission statements and the “degree of satisfaction with financial performance”. However, a clear understanding of the relationship between critical mission variables, their interactions with one another, and the their overall relationship to financial performance does not yet exist. This is because their various interactions have not been modeled yet (Bart et al., 2001).

#### **Methodology and Sample-Focus**

Now we might pause a little, to discuss the research methodology followed in this, present research - the procedure, sample selection, data collection method and the statistical method used.

As noted earlier, this research focuses on companies listed in the main board of the Malaysia Bourse for 2004. All companies under plantation-based sector in the Bourse specifically were used as samples for Malaysian-based companies in general as a “population” whose condition regarding mission statements is sought to be understood. Most of the samples are conglomerate companies, but have strong root in plantation sector. This is the sector that has a long enough history with Malaysia to give some idea about the Malaysian business performance scenario over a considerable period of time. Until recently, this was the sector that used to be the backbone of Malaysian economy. It was the main agenda for Malaysian economy under Malaysia’s first, second, and third Prime Ministers.

However, the nation’s fourth Prime Minister, Dr. Mahathir Mohamed shifted the focus to heavy industries, when he took over the Prime Minister’s office in 1982. Since then, the plantation-based industrial sector has received relatively lesser attention. Latest development, however, is that the sector seems to get back its prime position. This is so, because the present Prime Minister, Datuk Seri Abdullah Ahmad Badawi wants more agricultural based activities to be explored and used as the nation’s economic backbone again. In particular Tan Sri Muhyiddin Yassin, one of the most senior ministers have been appointed to head the ministry of Agriculture as to ensure the agenda will work as planned.

So, this research tried to identify the issues addressed in companies listed in this sector. In lieu to that, all companies in the sector either with or without mission statements were taken as samples. Telephone interviews, website surfing, and annual report analyses were used as mediums to identify those companies’ mission statements. However, mission statements that are formally written only were counted in the research.

Telephone interviews were used when the mission statements were not available in a company website or annual report. All communication was done through communication department, human resource department, public relations, or corporate planning department of the contacted companies. They were asked to fax the statement to the researcher.

A Word by word analyses was conducted on all mission statements. Every possible bias or making assumption on the meanings of the words were strictly monitored and avoided and coding procedure analysis was used too. Each company mission statement consisted several issues, so separate index card were created for each issue with the name of the company at the bottom of the card.

The above mentioned data collection and analysis method were carefully selected and conducted as to minimize any potential bias. The method was selected because the mission statements literature indicates most of them have been widely adopted in the previous studies. Furthermore, by using the same method, the findings of this research can be compared with previous studies.

#### **Findings**

Now we present the result of this research. The data gathered are tabulated and analyzed in the various graphical forms. The results will be presented in terms of several major issues addressed in mission statements.

This research had three objectives. Firstly, to identify the distribution of companies with and without mission statements those are listed under the plantation sector of the Malaysia Bourse’s main board. Secondly, to determine the issues addressed by mission statements of each company that listed under the plantation sector of the Malaysia Bourse’s main board, and finally to determine the most popular issues addressed by companies in their mission statements. Proceeding on to achieve those objectives, we conducted the research, and reached the following conclusion. Following are the findings of this research.

The list of the companies participated in this research is shown in Table 2. The results shows most of companies listed under the sector have no mission statements. Out of thirty-nine (39) companies, only (8) companies or 20.5% have mission statements. This finding shows the lack of strategic management practices among plantation-based companies in Malaysia that were known as the backbone to the Malaysia economy.

TABLE 2: LIST OF COMPANIES IN THE PLANTATION SECTOR

1. Guthrie Ropel Bhd	2. Batu Kawan Berhad	3. Kim Loong Resources Bhd	4. NPC Resources Bhd
5. Highlands & Lowlands Bhd	6. BLD Plantation Bhd	7. Kluang Rubber Co (M) Bhd	8. PPB Oil Palms Bhd
9. IJM Plantations Bhd	10. Boustead Holdings Bhd	11. Kretam Holdings Bhd	12. Riverview Rubber Estates Bhd
13. Johore Tenggara Oil Palm Bhd	14. Bukit Katil Resources Bhd	15. Kulim (M) Bhd	16. Sarawak Oil Palm Bhd
17. Kuala Lumpur Kepong Bhd	18. Chin Teck Plantations Bhd	19. Kurnia Setia Bhd	20. Sungei Bagan Rubber Co (M) Bhd
21. Kumpulan Guthrie Bhd	22. Far East Holdings Bhd	23. Kwantas Companies Bhd	24. TDM Bhd
25. Ladang Perbadanan – Fima Bhd	26. Glenealy Plantations (M) Bhd	27. Mentakab Rubber Co (M) Bhd	28. Unico Desa Plantations Bhd
29. TH Group Bhd	30. Golden Hope Plantations Bhd	31. MHC Plantations Bhd	32. United Malacca Rubber Estates Bhd
33. Asiatic Development Bhd	34. Inch Kenneth Kajang Rubber Bhd	35. Multinvest Resources Bhd	36. United Plantation Bhd
37. Ayer Molek Rubber Co Bhd	38. IOI Companies Bhd	39. Negri Sembilan Oil Palms Bhd	

Two (2) of the companies use the same mission statements as they are subsidiaries to another company. In other words, their parent companies' mission statements are broad enough to represent their activities. The issues addressed by the eight (8) companies that have mission statements were grouped together as to bring out its latent structure. This research has identified nineteen (19) issues. Table 3 below is the list of the issues.

TABLE 3: ISSUES OF MISSION STATEMENTS

1. to exceed customer expectation	11. to enhance knowledge through effective training
2. to provide opportunity for career advancement	12. to ensure operational excellence
3. to enhance shareholders value	13. to fully utilize technological innovation and mechanization advancement
4. to maximize stakeholders benefits	14. to be a responsible corporate citizen
5. to be a cost effective producer	15. to be the best company to work for
6. to develop teamwork based working environment	16. to provide superior quality at competitive price
7. to become an excellence oriented management	17. to provide conducive working environment
8. to partner justly with subsidiaries and associates	18. to provide and maintain beneficial relationship with business associates
9. to provide superior quality and speed	19. to enhance growth and profitability
10. to grow through long term planning	

Nineteen (19) issues addressed by just eight (8) companies clearly shows the wide spread of issues being addressed by the companies. Several issues were identified as popular issues and those are factors such as “to be a good corporate citizen”, “to exceed customer expectation”, and “to enhance shareholders value”.

Among the nineteen (19) issues identified, issues such as “to be a responsible corporate citizen” (18.8%), “to exceed customer expectation” (12.5%), “to enhance shareholders value” (12.5%), and “to provide opportunity for career advancement” (9.4%) were identified as the most popular issues. (See Table 4)

TABLE 4: THE ISSUES ADDRESSED BY SAMPLE COMPANIES

Mission statement Number	Frequency	Percent
1. to be responsible corporate citizen	6	18.8
2. to exceed customer expectation	4	12.5
3. to enhance shareholders value	4	12.5
4. to provide opportunity for career advancement	3	9.4

Other issues were chosen once only or (3.13%) each by the companies. They are: to maximize stakeholders benefits, to be a cost effective producer, to develop teamwork based working environment, to become an excellence oriented management, to partner justly with subsidiaries and associates, to provide superior quality, to grow through long term planning, to enhance knowledge through effective training, to ensure operational excellence, to fully utilize technological innovations and mechanization advancement, to be the best company to work for, to provide superior quality at competitive price, to provide conducive working environment, to provide and maintain beneficial relationship with business associates, and to enhance growth and profitability.

## Conclusion

Let us now discuss guarding the major findings of the research, and draw tentative conclusions to provide basis for further research in the area. The objectives were to identify the distribution of companies with and without mission statements listed under the plantation sector of the Malaysia Bourse’s main board, to determine the issues addressed by mission statements of each company, and to determine the most popular issues addressed by in mission statements of the sample companies.

Overall, the findings clearly indicate a lack of strategic management practices among companies in the plantation sector in Malaysia. This suggests, despite an image of rapid development, Malaysia is likely to lag behind – at least in the plantation-based company sector. If this is any generalisable indication for Malaysia management practices across the board, implications will be grave for long-term Malaysian development prospects. Further studies will be required to see if that indeed is the case – or the plantation sector studied here is only an aberration.

This study found, thirty-one (31) or (79.5%) of thirty- nine (39) companies listed under the plantation sector of the Malaysia Bourse’s main board have no mission statements. The eight (8) companies with mission statements want “to be a responsible corporate citizen” (18.8%), “to exceed customer expectation” (12.5%), “to enhance shareholders value” (12.5%), and “to provide opportunity for career advancement” (9.4%). These issues were identified as the most popular issues of the nineteen (19) being studied.

Based on the findings, the empirical information suggests most of the companies have no mission statements (75.5%) or thirty-one (31) out of thirty-nine (39) companies. This findings is consistent with the earlier observation Jill *et al.* (1996) based *Business Week* that found 59 percent of the 1,000 companies did not have mission statements (1996).

While, the issues addressed by the eight (8) companies that have mission statements were very wide spread. The issues were “to exceed customer expectation, to provide opportunity for career advancement, to enhance shareholders value, to be a responsible corporate citizen, to maximize stakeholders benefits, to be a cost effective producer, to develop teamwork based working environment, to become an excellence oriented management, to partner justly with subsidiaries and associates, to provide superior quality and speed, to grow through long term planning, to enhance knowledge through effective training, to ensure operational excellence, to fully utilize technological innovation and mechanization advancement, to be the best company to work for, to provide superior quality at competitive price, to provide conducive working environment, to provide and maintain beneficial relationship with business associates, to enhance growth and profitability.” These issues addressed are consistent

with earlier studies by Pearce (1986), Campbell and Yeung (1991), Carolyn (1997), Tahir and Howard (2003), Thompson *et al* (2004), Charles *et al.* (2004) and Hitt *et al.* (2005).

On the basis of the findings of this research, mission statements appear to be very important strategic planning tool companies that exercising strategic management concept. The findings suggest most of the issues mentioned in mission statements of the Malaysia companies studied are similar to those mentioned most mission statements found discussed in the pre-existing literature, given the small sample, the drawing of any conclusion from this research should be done with caution. In view of this, future research could replicate this research with larger samples. Such commitment would further our understanding on companies approach to initiate their basis of activities.

In general, the findings of this research clearly highlight the lack of strategic management element among companies listed under the plantation sector of the Malaysia Bourse's main board. However, to the companies with their mission issues "to be a good corporate citizen" clearly show a very strong relationship between them and the Malaysia government whom always encourage private sector to take part in nation building programs.

We must mention something about the limitations of this research. The sample may be small to claim most of the plantation-based sector has no mission statement because many of them in the industry are not listed in the bourse. To locate them has emerged as this research's major problem because they are scattered all over the country.

Despite the above-mentioned limitations, the findings from this research are important. They create an opportunity for other researchers who might be interested in exploring issues addressed by mission statements in other sector and its relationship to companies' financial performances. Findings from this research can be used as a starting point for discovering the similarities in terms of issues of missions between sectors. Furthermore, it will be very useful to those who are interested in knowing the business management practices of Malaysian based companies in their efforts in mapping their future direction in contemporary, increasingly globalize – and hence, competitive - business world.

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# Performance Management and Performance Measures

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## Abstract

For every organization is important to achieve the best possible level of its performance. Securing performance is based on understanding business strategy, specifying performance goals and used management systems. Whole process of securing performance is called performance management. There are many techniques how to manage and measure performance. The most commonly used technique is the traditional performance management, which is based on financial indicators. There are also techniques that are using non-financial indicators like the balance scorecard. Performance management through processes is the latest and the least known. In comparison with previous techniques, this is focused more on behaviour of processes than their outcomes.

## Introduction

The challenges of continuously changing world stimulate the theory of management to generate new frameworks and techniques. Exerted frameworks and techniques in business management are losing their successfulness and forcing business to create new ones. E.g.:

- Quality Management
- Activity based costing
- Benchmarking
- Reengineering
- and more

Each of these generated vast interest, activity, consulting revenues but not always success. Why they can still exist? The answer is quite simply. They can exist because they all add value. Each framework purports to be unique and has its own protagonists. They all provide unique perspectives on performance.

## Performance Management

How we mention above, these frameworks and techniques provide unique perspectives on performance. It means, these views are one-dimensional and performance is multi-dimensional concept. Often they are not even linked to firm's strategy. That's the reason of their unsuccessfulness.

The more fundamental problem is that we are stuck with an archaic conception of the firm and where to look for performance. We think of firms mainly as black boxes. Investment flows into the box, activities take place inside but out of sight, products are made and sold to customers as results of these activities, and an income statement, balance sheet, and market valuation of the firm follow. Since financial results – the income statement, balance sheet, and market valuation – are reported for the firm as a whole or, internally, for large chunks of the firm called business units, we try to find measures describing the internal processes, products, and customers of the firm or large chunks of it. These aggregate measures conceal important sources of variation within the firm. The things a firm does well are lumped together with the things it does poorly. Critical information about performance is obscured. Performance is not an easy subject. There is clearly a need to study and rethink what is meant by the performance of the firm and how to measure it. Many firms claim to be running for performance and seek to measure their performance, improve performance, and compensate their people for performance. [8]

The field of performance measurement has evolved rapidly in the last few years with the development of new measurement frameworks and methodologies, such as the balanced scorecard, economic value added, economic profit, activity-based costing, and self-assessment techniques. What does the term “performance management” mean? We might say that performance refers simultaneously to the action, the result of the action, and to the success of the result compared to some benchmark. Viewing performance as a comparative judgment captures some of this complexity. If there is a judgment, a judge must be selected and criteria for the judgment need to exist. The criteria for the judgment are likely to focus on results, since the purpose of management is to create a continuous flow of value.

The organization is from a long-term view performer, if in advance specified goals are reached, and these goals are in compliance with organization strategy. The strategy should be proper and suitable and well-understood and strategic goals should be clearly defined. Then it is only up to organization how to reach these goals. [9] The whole process, which influenced performance carried out by organization, is called performance management.

There is not only one view of performance management and there are still many managers who feel dissatisfaction how performance is measured, designed and managed in their organization. Some of the measurement seems to be very inflexible and time demanding and they don't connect measures with strategy. Securing performance is based on understanding business strategy, specifying performance goals and used performance measurement systems. As the management has evolved, we recognize three streams how to manage and measure performance:

- Performance management based on financial indicators
- Performance management based on various perspectives
- Performance management based on processes

#### **Performance Management based on Financial Measures**

Traditional concept of evaluating firm's performance is using financial metrics – like revenue, profit growth, return on investment. Accounting measures of performance have been the traditional mainstay of quantitative approaches to organizational performance measurement. Firm is considered as performer, if it reaches planned financial outcome. According to a recent observation of organization performance, the high level of dissatisfaction is sometimes attributed to the dearth of non-financial predictors of performance. Financial measures of performance do not reflect the importance of current resource decisions for future financial performance. Past accounting results say nothing about the factors that actually help grow market share and profits – things like customer service innovation, R&D effectiveness, the percent of first-time quality, and employee development.

Financial indicators present the exact feedback about organization performance, what is the biggest negative of this concept. They are evaluating already carried operations. [1] Besides that, financial outcomes picture something already happened, the past period and they never tell us how our strategy is fulfilled.

Choosing performance measures is a challenge. Performance measurement systems play a key role in developing strategy, evaluating the achievement of organizational objectives and compensating managers. Yet many managers feel traditional financially oriented systems no longer work adequately. There is too much emphasis on financial measures such as earnings and accounting returns and little emphasis on drivers of value such as customer and employee satisfaction, innovation and quality. There are also non-financial indicators, which are important, e.g.: sustaining existing customers, obtaining new customers, introducing innovating products, customers' satisfaction, employees' motivation etc.

However, over the past two decades, a great deal of attention has been paid to the development and use of non-financial measures of performance, which can be used both to motivate and report on the performance of business (and other) organizations. The impetus for such developments has come from both the bottom and the top of the organization. Much performance management at the operational level is carried out using specific indicators of performance, which are usually not measured in financial terms. At the most senior levels, although financial performance is inevitably a major consideration, there has been increasing recognition that other important factors in the effective running of the organization cannot be well captured by such measures. Thus, non-financial performance measures have undergone significant development, to the relative neglect of the development of improved financial measures. However, the recent publicity surrounding the marketing of economic value added

(EVA) as an overall measure of company performance by management consultants Stern Stewart can be seen as a sign of a new emphasis on the financial aspects of performance. [8]

The purpose of this contribution is to review the roles and functions of financial measures of organizational performance, and to outline the major features of their development, particularly in the latter half of the last century. It will be argued that there are three different major functions for financial performance measures, and that, although these functions overlap to some extent, major confusion can be caused by applying measures developed for one function to a different one. The three main functions involved are:

1. Financial measures of performance as tools of financial management. Here the focus is on the functional specials of finance and financial management. This is concerned with the efficient provision and use of financial resources to support the wider aims of the organization, and to manage the effective and efficient operation of the finance function.
2. Financial performance as a major objective of a business organization. Here an overarching financial performance measure, such as profit, return on investment, or EVA, is used to signify the achievement of an important (perhaps the most important) organizational objective.
3. Financial measures of performance as mechanisms for motivation and control within the organization. Here the financial information provides a 'window' into the organization by which specific operations are managed through the codification of their inputs and outputs in financial terms.

Clearly, there is some overlap between these different functions. Efficient financial management is a component of efficient overall management, but it does not subsume the latter. Performance may be managed, in part, by the transmission of corporate objectives (in financial form) downwards as part of the process of strategy implementation, and financial measures may provide substantial insight into the overall impact of operational activities, but other, more specific, measures are generally needed to fully understand and manage the "drivers" of performance. This contribution will therefore first consider each of the major functions independently, and then examine the linkages between them. [8]

What follows is by no means a comprehensive review of how functions of financial performance measures have been used over the past 50 years. Rather, it is a brief report on the highlights, which attempts to draw out the lessons that have been learned and to limit the confusion that can be caused by not recognizing the different functions involved. Any organization, whether public or private, has to live within financial constraints and to deliver perceived value for money to its stakeholders. The role of the finance function is to manage the financial resources of the organization, and to ensure that the financial constraints it faces are not breached. Failure to do this will lead to financial distress, and ultimately, for many organizations, to financial failure or bankruptcy.

Thus, financial planning and control is an essential part of the overall management process. Establishment of precisely what the financial constraints are and how the proposed operating plans will impact upon them are a central part of the finance function. This is generally undertaken by the development of financial plans that outline the financial outcomes that are necessary for the organization to meet its commitments. Financial control can be seen as the process by which such plans are monitored and necessary corrective action proposed where significant deviations are detected. [8]

#### **Performance Management based on Various Perspectives**

To stay competitive in today's business environment, we need to manage and control a wide array of factors that drive the success of our company. To succeed, companies have to adopt a holistic and multidimensional view of problem solving and analysis. This creates a need for a performance management system that allows us to view the business processes from many different perspectives. A modern performance measurement system, thus, has to allow for a multitude of business perspectives. Executives, managers and workers all have their specific needs for information that will help them make the right decisions and take the right action. As a consequence, a performance management system has to incorporate measurement models that support strategic and operative processes, short-term and long-term perspectives, financial and non-financial perspectives and so on.

Modern performance measurement joins the dictionary definitions of performance and the prevailing definition of economic performance. The dictionary definition of performance, again, is the act of performing; what people, machines, or, for that matter, firms do. The economic definition of performance is future revenues discounted to present value. Modern performance measurement searches for what firms do that generates revenues

in excess of costs. But, having bridged the dictionary and economic definitions of performance, modern performance measurement has gone awry because it remains firm centric. Firm-centric measurement treats the firm as a single entity and attempts to measure both the financial and non- financial performance at the level of the firm. It starts, in other words, with the firm and its financial results, asks how the functioning of the firm affects these results, and then searches for the right measures of the functioning of the firm, that is, the right non- financial measures. [8]

Performance management systems directly influence five critical organizational outcomes: financial performance, productivity, product or service quality, customer satisfaction, and employee job satisfaction. When performance management systems are flexible and linked to strategic goals, organizations are more likely to see improvement in the five critical areas. Team objectives, non-manager training, appraiser accountability, and links to quality management are the specific practices most strongly associated with positive outcomes. The research examined performance in six strategic performance areas deemed crucial to long-term success:

- Financial performance
- Operating efficiency
- Customer satisfaction
- Employee performance
- Innovation/Change
- Community/Environment

The performance management can be based on more than one perspective how it was before. More than 75 percent of the average firm's market value is derived from intangible assets that traditional financial metrics don't capture. Arguing that firms can't manage what they can't measure, Robert S. Kaplan and David P. Norton introduced a revolutionary performance measurement system called Balance Scorecard/ BSC. BSC enables companies to quantify critical intangibles such as people, information, and culture.[5]

An organization's strategy describes how it proposes to create value for a shareholder and customers. If an organization's intangible assets represent more than 75 percent of its value, than its strategy formulation and execution need to explicitly address the mobilization and alignment of intangible assets. An origination must measure the critical few parameters that represent its strategy for long-term value creation.

#### **The Balance Scorecard**

The Balance Scorecard offers framework for describing strategies for creating value. It is using four perspectives:

- Financial perspective,
- Customer perspective,
- Internal business process perspective,
- Learning and growth perspective.

Fig. 1.1 illustrates the architecture of BSC. The scorecard defines the set of the near-term objectives and activities, the drivers that will differentiate a company from its competitors and create long-term customer and shareholder value, the outcome.

*Financial performance*, provide the ultimate definition of an organization's success. Strategy describes how and organization intends to create sustainable growth in shareholder value.

Success with targeted customers provides a principal component for improved financial performance. *Customer perspective* defines the value proposition for targeted customer segments. Choosing the customer value proposition is the central element of strategy.

*Internal processes* create and deliver the value proposition for customers. The performance of internal processes is a leading indicator of subsequent improvements in customer and financial outcomes.

Intangible assets are the ultimate source of sustainable value creation. *Learning and growth* objectives describe how the people, technology, and organization climate combine to support the strategy. Improvements in learning and growth measures are lead indicator for indicator for internal process, customer, and financial performance. [7]

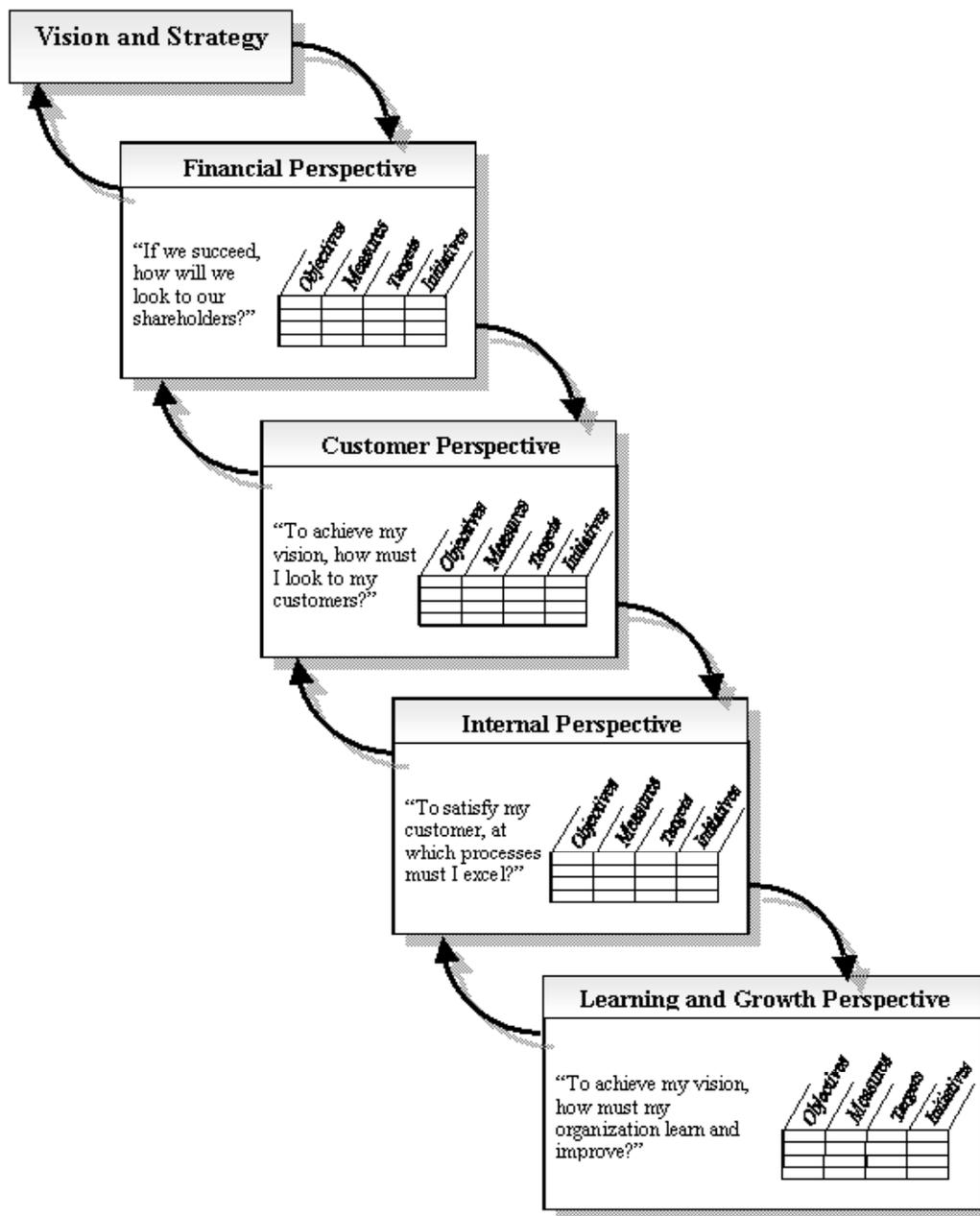


FIG. 1.1 CAUSE-AND-EFFECT RELATIONSHIPS OF THE STRATEGY [6]

In these four perspectives are objectives link together in a chain of cause-and-effect relationships (Figure 1-1). .BSC has a top-down logic, starting with desired financial and customers outcomes and then moving to the value proposition, business processes, and infrastructure that are the drivers of change. The relationships between the drivers and the desired outcomes constitute the hypotheses that define strategy. [6]

The Balanced Scorecard approach is used in establishing the right performance measures for business performance gains. Scorecards systematically report past financial performance while providing sketchy details of clients served quality, and value-added achievements. Public and private organizations worldwide have struggled to develop a 'scorecard', which portrays performance in a balanced fashion. Public and private sectors have tended to place heavy quantitative emphasis on financial resource results - and this in turn has skewed management attention towards internal financial control, at the expense of other areas.

#### **Performance Management based on Processes**

In recent years, interest in performance measurement connected to process management has rocketed. Much has been written about how performance measures should be process based. It is also the contention of this part, that processes should provide the foundation of a performance management system. Process orientation is a big benefit. Resulting framework would incorporate balanced scorecard and strategic performance measurement concepts. Even more importantly, a process-based framework can integrate a wide range of other management initiatives such as ABC, six sigma and total quality control.

What is a business process? A business process is a collection of activities designed to produce a specific output for a particular customer or market. It implies a strong emphasis on how the work is done within an organization, in contrast to a product's focus on what. A process is thus a specific ordering of work activities across time and place, with a beginning, an end, and clearly defined inputs and outputs: a structure for action.

Processes provide an excellent foundation for settling a performance measurement system. Processes that are in control deliver good performance. Equally, processes that are out of control or have negative relationships with other processes deliver unequal or poor performance. This is the basis of process performance measurement system. It is focused more on behaviour of processes rather than performance results. Measurement of performance results is characteristic for function-oriented organization.

We can illustrate the difference. Consider that we are introducing a new product to the market. How can we measure performance of this introduction process? The measure can be number of new products introduced versus plan. Or what else should we measure? Should we measure the number of new products that were introduced on time? Or should we measure if the number of new products was on the cost? There are many other dimensions that need to be measure. Alternatively, processes approach measure whether the activities of the new product introduction process are in control. This involves setting up a control chart for the product introduction process and each of its major activities. The goal of the control chart approach to performance measurement is to ensure each activity and the overall process is in control and operating properly. If these conditions are met then we know that the targeted number of new products is being achieved and that they are on cost and on schedule. [2] Thus we do not need to directly measure the results. If the process is out of control, the goal of introducing new products will not be achieved and we do not have to measure the results to determine this consequence. If we don't control processes, we don't know anything about goal achievement until we will make the measures of the results. [10]

#### **Process-based Performance Measures**

The principles of process management are very simple. Performance results are directly related to the stability of a process. Process stability is directly related to the amount and distribution of process variation. Control charts should be used to detect changes to process equilibrium. (Fig. 1.2) The factors that cause process variation must be identified and constantly minimized. Once a process is in control, it must be brought to higher levels of performance. And finally, key events that will significantly disrupt process performance must be detected and proactive action taken to minimize their impact. [2]

A control chart is a simple and effective tool to define process variation. Process variation is due to external and internal factors that influence a process in a chain of cause and effects. These factors must be constantly identified and, where possible, minimized or eliminated. Many of these environmental factors are controllable. The control chart defines the effectiveness of the process and characterizes the behavior of the time series. Some time series are consistent and thus predictable and stable over time. More commonly, time series are inconsistent-they are unpredictable and changing over time. The lines on the control chart provide reference points in deciding which type of behavior is displayed by any given time series. The control chart is used to characterize the behavior of the data-it is predictable or not. Second, the control chart allows the manager to predict what to expect in the future-the behavior of the process. [3]

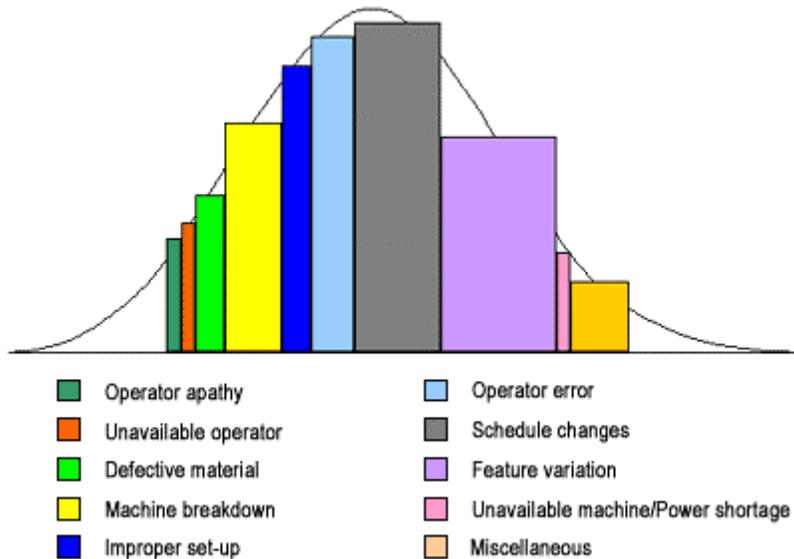


FIG. 1.2 CAUSES OF PROCESS VARIATION [3]

One of today's organizational problems is the disconnection and absence of alignment between local measurements of things a manager, team, or employee can control or influence and the subsequent organizational results. [4] Performance measures that evaluate performance give the management team confidence that satisfactory results are being achieved. Through processes measurement problems can be identified immediately and it enables immediate correction to assure better performance. Performance measures identify how well a process is performed. It measures the process efficiency and effectiveness. A process that is efficient and effective will deliver predictable results. Inefficient and ineffective process delivers unpredictable results.

Performance management based on processes measures is based on understanding strategy, specifying performance goals, and identifying all processes, which have impact on reaching these goals. For these processes we have to set key performance indicators according to which we measure and evaluate processes. Measures give us information about how well processes work, which also means how well is all organization operating and performing. Performance measures should be defined that are linked to business strategies, process capabilities and individual performance capacities. Feedback also should be provided on the performance of operations, help is given to assess the operations experience to continuously improve performance, and setting targets are guided for improvements that are specific and attainable.

## Conclusion

The performance management and performance measures have developed rapidly last few years. Many management teams are still not satisfied with the performance of their firms. Performance management depends on understanding business strategy, specifying performance goals and used performance measurement systems.

Traditionally, performance management was based on financial indicators, but this concept under current conditions of changing world, is not that successful how it used to be. The performance management can be based on more than one perspective. There are new frameworks and methodologies, such as the balanced scorecard, which help with strategy implementation and secure better performance using various perspectives.

Performance is something what we do today and what will lead to measured outcome tomorrow. If we want to manage performance is not enough just measure the outcome or the results of past performance. In that case, there is no room for managing something that already happened. We need to take appropriate actions immediately to ensure satisfying future results.

Performance management based on process is focused more on behaviour of processes rather than performance results. Through processes measurement, problems can be identified immediately and it enables immediate correction. Also, process-based framework can integrate a wide range of other management frameworks and methodologies.

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# Reducing Resistance to Change Through Knowledge Management: A Conceptual Approach

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## Abstract

The research is based on two hypothesis: 1. Corporate change produces resistance from those who feel negatively affected by that. This can be due to a loss of responsibility, status, power or income. 2. Knowledge Management is a tool to reduce resistance by evaluating individual competence, motivation and responsibility. The subject of analysis is the individual. While change management literature focuses on individual behaviour, knowledge management refers to human assets, like tacit and explicit knowledge. If knowledge management is considered to be a tool in order to manage corporate change processes, then it must be extended to the issue of human behaviour. The freedom of choice is limited by rules of behaviour, which influences directly in individual cost-benefit situations. Therefore, rules as element of the individual environment should be taken into account when analysing people's behaviour. The purpose of this research is to develop a new model of knowledge management, which improves the management of change in corporate organisations.

## Introduction

Since intangible resources are considered to be a major source of sustainable competitive advantage, knowledge has emerged into a primary topic in strategic management.<sup>1</sup> The importance of knowledge becomes evident if we look at corporate change processes, i.e. process innovations. Knowledge is a factor which pushes innovation and either drives the company or instead, puts a halt on progress if people do not follow and they reject co-operation. Employees themselves become personal barriers of change.

An overview of research on knowledge shows that most studies emphasize, on the one hand, the process of knowledge creation and on the other hand, the organizational prerequisites needed for the knowledge creation process.<sup>2</sup> Different theoretical streams back up this research and can be classified into three groups: a) organizational learning theory<sup>3</sup>, b) resource based theory of the firm<sup>4</sup>, and c) knowledge creation theory<sup>5</sup>.

All these theories analyze knowledge from the organizational perspective focussing on the creation, administration and dissemination of knowledge. Management and organizational theory has developed knowledge management tools, based on the different approaches mentioned above and enriched by technical details of knowledge management implementation. Ever since then, human resource and information technology experts have dominated the academic discussion by polarizing between personalization and codification strategy.

So far, as the discussion has dealt mainly with organizational and technical details, management problems resulting from individual behaviour have not been considered. The objective of knowledge management (KM) has been to create organizational knowledge so as to increase, on the one hand, the effectiveness of human capital through knowledge sharing and knowledge synergies and, on the other hand, to improve organizational flexibility concerning change and innovation. Within this framework, the individual is expected to be cooperative in his/her attitude concerning his/her participation in knowledge management as well as in processes of change. But what happens in the case of uncooperative behaviour? Literature on change management shows that new organizational processes may cause resistance to change from single persons or groups, when it comes to the moment of implementation. Conceptually well-defined process innovations can fail because of a reserved or negative individual attitude towards innovation. A frequently proposed solution in change management literature is to change people's attitude so as to change behaviour through detecting change agents. If a critical mass of employees changes its attitude, the entire organization will change. In this way, change is an experience of conversion of minds.

But reality shows that attitudes change very slowly and arise from the individual assessment of situations. In fact, individual behaviour is shaped by motivation and organizational roles which people play and which have an influence on evaluation through perception and experience. Instead of emphasizing directly on attitude, the focus must be on people's roles. An effective way to change behaviour is to put the employee into a new organizational context with formally defined tasks, responsibilities and relationships. If the new role matches individual expectations and preferences, he/she is motivated to change his/her attitude. But once again, what happens if the employee does not see this match? Often, new situations in fast changing environments can cause some wicked problems, where the percentage of unknown or uncertain variables and relationships are difficult to define, and are highly subjective.<sup>6</sup> Such a situation can result in inefficiency and may lead to missed opportunities.

The objective of this study is to develop an instrument which helps business decision makers to improve the management of change by reducing individual resistance to change. The core component of such an instrument is the traditional concept of knowledge management, because it manages the key parameter for innovation and change - knowledge. But as mentioned above, traditional KM is mainly focussed on organizational issues and refers to the establishment of organizational parameters to stimulate knowledge creation and sharing. The assumption is that parameters which influence individual behaviour should be integrated into a modified extended model of KM in order to discover personal barriers of change. This new tool helps decision makers to improve efficiency in managing human capital and as a result, maintain or increase the competitive advantage of the company. "A firm can increase its flexibility and adaptability in a rapidly changing business environment by focussing on the efficiency of KM activities."<sup>7</sup>

## **The Conceptual Approach**

The conceptual starting point of this research is the economic theory of human behaviour. According to this theory, individuals are rationally maximizing beings within an institutional framework of norms and rules, which determine the individual activity scope.<sup>8</sup> Rational choice theory makes the point on three issues: Rationality, evaluation and maximization. Within the theoretical context, individual rationality is the ability to learn from mistakes and to avoid repeating the same error consistently. "Rationality [...] means the mistakes that people make are random and not consistent over time."<sup>9</sup> A second point is that individuals weigh the pros and cons of alternatives and choose those alternatives that make them better off. "... people do not act capriciously and reflexively."<sup>10</sup> Finally, maximisation is the decision rule that brings the decision process to an end. The rule is result oriented and its purpose is to increase the individual's welfare. Maximisation is the most exclusive rule in individual behaviour, because the only authority on this decision is the individual him or herself and his/her understanding of personal welfare.

Due to the underlying assumption of rationality, this approach provides some clear decision rules and contributes to identifying cooperative or uncooperative behaviour. Modifications of this approach by Simon or Thibaut/Kelley underline the need to understand behaviour within a social context. Bounded rationality or rank happiness deal with the limits of individual maximization capacity.<sup>11</sup> Utility maximization is relative instead of absolute. It is the individual benchmark compared to others, which defines the degree of personal satisfaction.

The individual environment consists, on the one hand, of people surrounding the individual and, on the other hand, of rules, standards and norms, which co-ordinate the interaction between the members of a group, organization or society. These institutions limit the individual activity scope, but also provide security and stability for individual decision-making.

The research model focuses on the individual, whose behaviour is driven by rational calculations of their own self-interest (see fig. 1).<sup>12</sup> In this sense, individuals behave like investors, who spend their scarce resources on the economically most attractive alternative. Individual decision-making follows the economic philosophy of utility maximization under the restrictions of limited resources and the social conditions of the environment.

Changes in the work environment initiate a process of individual reflection concerning expected costs and benefits. Depending on the result, the individual accepts or resists change. From this moment, the individual decision shifts to the organizational level and the process affects the organizational dimension. The company, which consists of a personnel, technological and organizational structure, has to manage individual reaction to change. In

the case of a negative attitude towards change, reasons can be found by applying the conceptual logic of economic theory of human behaviour to the specific situation. This received information can be used to improve the matching of individual preferences and work environment. Knowing individual parameters of behaviour within the work environment allows us to discover uncooperative behaviour already in advance. In contrast to the traditional KM, the modified, extended KM-model also responds to unco-operative behaviour, which arises when the individual's preference function is not in line with organizational objectives.

The first assumption of this research is that corporate change raises a conflict if it damages the agreed equilibrium between company and employee. Kubr points out that on the one hand, people are prepared to cope with organisational change if they see the benefit and purpose.<sup>13</sup> But this means, on the other hand, that people are not prepared and perhaps not willing to change if they do not see the benefit. The aim of this paper is to discuss the issue of resistance to corporate change by focussing on parameters of behaviour.

The second assumption is that an individualized concept of KM is a tool for reducing resistance through identifying and analyzing tangible and intangible parameters of individual behaviour. In doing so, KM becomes a management tool with a broad scope of application. The integration of parameters of individual behaviour extends the concept from the organizational knowledge perspective to the broader view of individual decision-making. KM evolves into a holistic strategy tool which helps to identify cooperative and uncooperative behaviour.

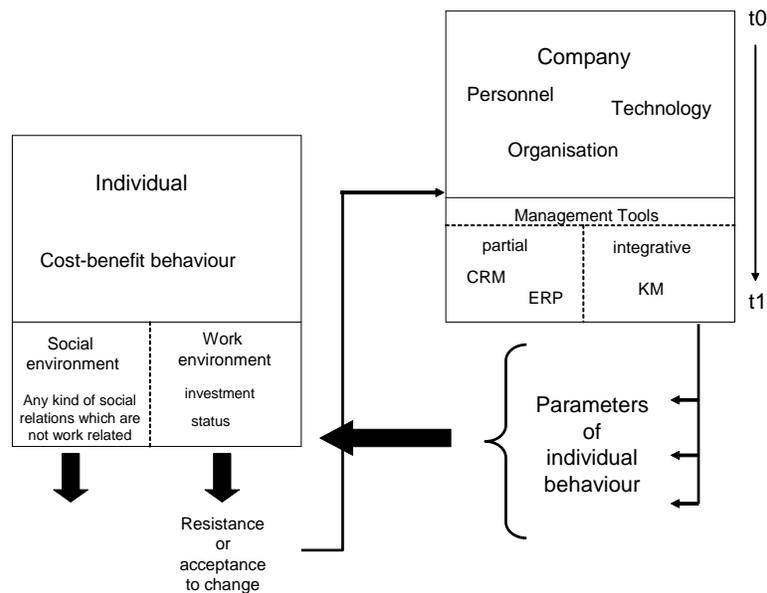


FIG. 1: RESEARCH MODEL

The study is based on a literature survey, including in a first step, the economic theories of human behaviour. This helps to define parameters of behaviour and to explain in which direction – against or in favour of change – they influence behaviour. The disadvantage that economic theory of individual behaviour reduces the complexity of behaviour, must be contrasted with the fact that the homo oeconomicus is a construct to measure decision behaviour. Therefore, the theory enables us to draw some clear conclusions concerning behaviour in changing environments.

In a second step, the results from the former analysis will be integrated in a model of KM. In contrast to traditional models, the new one is focussed on decision behaviour. The different parameters of behaviour will not

only be identified, but also put into a conceptual structure in order to assure the logical coherence of the new descriptive model.

## **Economic Human Behaviour and Change**

Within the change process, a crucial element of success is the commitment of all involved.<sup>14</sup> The willingness to support change is the first predictor of every organizational change process and depends on whether the utility of change is perceived favourable or unfavourable. The perception of change is related to the performance of a number of determinants the individual considers relevant to achieve his/her goals. Following the conceptual approach of this study, these determinants affect the economic calculus positive or negative. The individual attitude towards change reflects the expected performance after change.<sup>15</sup>

But apart from personal outcomes, people care also about processes. This approach follows Hayek's theory of mind, which explains behaviour as a consequence of perception. According to Hayek, the way something is perceived depends on a process of cognitive reflection. Essential components of this process are interpretation, which is based on personal interests, and categorization, which puts the decision object into a contextual framework.<sup>16</sup> The important point is that decisions are not only defined by the result of rational choice behaviour but also by procedural rule behaviour. Rule behaviour means identifying the context in which something happens and connecting the actual event with the environmental configuration. In this sense, decision-making is a holistic process of perception, interpretation and evaluation within a framework of rules.

### **Tangible Costs of Change**

In line with with Rational Choice Theory, individuals evaluate alternatives before taking decisions to reach a satisfying utility level. Having made the correct decision, providing the individual with tangible (financial reward) or intangible benefits (prestige). Looking at tangible income, the way people behave in processes of change, depends on realized current and expected future income. If the individual objective is to reach a satisfying level of annual or lifetime income, then the conclusion is that every change which puts this objective at peril, will be rejected. Following the logic of rationality, employees are open to change if they see what is in it for them and if they can be sure that they are going to benefit from change.

In contrast, change is considered negative when disadvantages pre-dominate the individual perception. Within the context of cost-benefit, disadvantages determine the cost-side of change. Two types of costs can be identified:

- Tangible costs, which affects directly the level of tangible income, and
- Intangible costs, which refer to the negative outcome on the cognitive or emotional level and which may have an indirect impact on the tangible income level.

Two determinants of income, specialization and experience, need to be considered, due to the fact that corporate change may influence the importance of both. Knowledge specialization is an investment in specific human capital which is difficult to use outside the company, if the specialization is highly firm-oriented. Only the company, for which the knowledge investment was made, can guarantee the return on knowledge investment, therefore, every change which puts the future use of firm-specific knowledge in danger, is rejected. The extreme situation is human capital, which cannot be used in activities outside the company, and, therefore, has no market price, because there is no market. The employee is in a monopolistic position, but then so is the company. According to Williamson, the income of a specialist is entirely rent income, if the specialisation is only valuable for the company but not for the market in general.<sup>17</sup> For the employee it is impossible to recover his salary in another company. If the share of rent income on total income compared to market income is high, a negative individual attitude towards change, which puts the level and stability of income in danger, can be expected. The conclusion is that, firstly, organisational change has a negative effect on those employees whose human capital becomes devaluated through change and, secondly, it threatens the expert more than the generalist.

Expertise results from explicit and tacit knowledge generation. The main characteristic of the latter is that it is a knowledge asset which grows over time. Tacit knowledge, generally called experience, cannot be learned by theory, but is positively related to age. The fact that companies place emphasis on experience and are willing to pay

for it, demonstrates the importance of this type of knowledge. This means that if experience becomes useless because of change, the employee loses a strong asset and needs some time to build up new experience. Older people particularly are not in the situation to do this, due to their limited potential of work years. As a consequence, these employees often remain unemployed once they lose their job. It can be expected that employees who are threatened by the devaluation of experience, will be in a strong opposition towards change and that opposition is positively correlated with age.

Following economic theory, the income of the production factor “labour” is linked to its productivity which is a function of knowledge specialisation and experience. Organizational change which depreciates knowledge specialisation or experience reduces the labour productivity of the employee and, according to theory, has a negative impact on income. The marginal productivity shrinks over time. If

$$P = f\{SK, E\}$$

then

$$dP/dT < 0$$

with:

P = productivity

SK = Special Knowledge

E = Experience

T = Time

Graphically, the marginal productivity of an employee whose specialist knowledge and experience is depreciated, turns downward. The slope of the curve depends on whether the organizational change is radical or incremental. Due to contract conditions, the employer is not free to reduce wages. Therefore, income will hardly follow the marginal productivity curve. This creates a gap between the level of income and labour productivity. This gap grows over time and increases the risk of dismissal for the employee. In this situation, the employee can choose between two alternatives: a) cooperative or b) uncooperative behaviour. In the case of uncooperative behaviour, the change process can be damaged if the employee is still in a powerful position. He/she can use this power in order to slow down the change process and to diminish the income-labour productivity gap. Mathematically, this means that the second deduction of marginal productivity is positive:

$$d^2P/d^2T > 0$$

Often, change in the company requires management or staff training in order to familiarize employees with the new external (regional markets) and/or internal (process innovation) environment. These costs are tangible and directly related to the change process. Provided the company assumes these costs, the risk of uncooperative behaviour is low, because costs are externalized to the company.

#### **Intangible Cost of Change**

Beyond tangible costs there are individual adjustment costs, which result from changes in responsibilities, habits and routines and are internalized by the employee. Some typical reasons for this type of costs are mentioned by Kanter.<sup>18</sup> Most of these costs are intangible and are related to a) a misfit between actual perceptions and expectations concerning status and prestige, and b) the personal status compared to others.

The first impact of organisational change is emotionally, negatively or positively, and is characterized by stress and anxiety or happiness and satisfaction. The principal reason for a misfit between perception and expectation result from a *lack of involvement* of the employees in the change process. A top-down change management leads to the perception that change is made to the employees instead of made by them. From the employees' perspective, an authoritarian style of change management includes an unpredictable component. The employees are informed later about decisions that have already been taken, without really knowing the context which influenced decision-making. This raises *uncertainty* and generates a lack of security.

The personal status within the organization is affected, if a change in process or organisation is perceived as a *loss of face* by those who were responsible for the situation before the change. Especially in static organisations without a culture of continuous innovation, changes may appear as a correction of policies, which are later considered to be wrong. A further point is related to the aspect of *responsibility*. In a change process an employee can get more or less responsibility. A typical case is that of an organisation that plans to flatten its organisational

structure and eliminate one hierarchy level. The question rises, what happens to the employees, who worked on this level? Do they ascend or descend in hierarchy?

Apart from intangible direct costs, intangible indirect costs of change arise, when the employee is tied to an activity which results from the change process and hinders him/her from pursuing another one. The cost of not being able to follow an alternative because of being involved in the change process, describes the opportunity costs of change. An example of private opportunity cost is the cost of not being with the family, because of management training that takes place over the weekend. Even in the case that direct tangible costs of change are paid by the company (training), the individual is charged with indirect costs, which are the opportunity costs of change.

To conclude, intangible costs result from processes which move the individual in absolute or relatively new positions in comparison to others and, therefore, have their impact on individual wellbeing because of interindividual effects. According to Kim/Mauborgne these costs produce resistance if the individual has not been involved in the decision making process. Not only the result of change, but also the process of change is perceived unsatisfying. Kim/Mauborgne call negative impacts resulting from processes procedural injustice.<sup>19</sup>

#### **Rules and Change**

The impact of rules is on the organizational and individual level. On the organizational level, rules specify the norms of behaviour that must be adhered to in interaction with others. Any ignorance of norms bears the cost of non-observance. Institutional economics define this type of regulation (rules, norms, standards, habits) such as formal or informal institutions which standardize processes, create routines, reduce insecurity and increase organizational stability.<sup>20</sup>

The economic game theory, and in particular the prisoner's dilemma, underline this issue by analyzing opportunistic behaviour.<sup>21</sup> Opportunism means that in an interactive situation between two people, at least one of them behaves different to the way formerly agreed, if defecting behaviour generates higher benefits than costs. With no rules, there is no possibility to sanction defecting behaviour and mutual trust would become the main driver of any transaction. But according to Jönsson/Christensen, trusting somebody means to expose oneself to the risk of betrayal.<sup>22</sup> Obviously, under these circumstances, some transactions would never be carried out. The conclusion is that regulation increases organizational efficiency, because it generates an institutional framework in which transactions take place at lower costs. Frameworks define the individual activity scope and must be taken into account when analyzing individual behaviour. In this sense, the individual activity scope is limited by the environment and every rational decision-making takes place within the limits of rules.

On the individual level, institutions help to create cognitive schemes, which are used to classify situations. How a new situation is evaluated by the individual depends on how far the situation matches the existing cognitive and affective schemes.<sup>23</sup> March and Simon argue that individuals respond to new situations (stimuli) with an elaborated set of routine activities and only when a stimulus is truly innovative, will a more appropriate response to the specific issue be developed. According to Hayek, individuals are looking for recurring patterns in separate situations. Innovations which do not require a change of habitual behaviour will be less probable to cause aversion, because of joint elements in both situations, before and after change which the individual is familiar with. What people's minds are trying to figure out when faced with a new situation "are elements that show some resemblance to those that we have experience of".<sup>24</sup> The fact that behaviour is a symbiosis of individual action and the related environmental context, in which action takes place, shows that experience is a construct of both. This means that recurring patterns which are used to classify different situations, can be found in the similarity of actions and/or the similarity of rules and norms. Therefore, individuals do not respond to separate situations such as unique events, but look for similarities between the elements of the situations. There is no activity within a vacuum. "If sensory perception must be regarded as an act of classification, what we perceive can never be unique properties of individual objects but always only properties which the objects have in common with other objects".<sup>25</sup> Drastic changes which affect action as well as rules and norms, reduce the probability of perceiving their impact on the employee and raising uncertainty. In contrast, smooth changes can avoid uncertainty by maintaining elements of the old situation, which makes it easier to interpret the new one. Within this context, rules are of special importance due to the fact that they come into existence because of their durable character. Individual choice within a set of rules means within a framework of stable elements, which helps to classify events.

## Categories of Decision Parameters

Individual decision-making contains the three steps perception, interpretation and evaluation. Changing environments have an impact on decision parameters, which can be classified into three categories:

- Parameters referring to the individual himself/herself (individual level),
- Parameters referring to the relation between people (inter-individual level) and,
- Parameters describing the institutional environment (environmental level).

The category of individual parameters consists of elements which describe the personal characteristic of the individual knowledge asset. Knowledge specialization and experience are components of the human capital which determines the value within the corporate value chain. According to the employee's marginal productivity, he/she is a strong or weak asset for the company. Although there is a huge discussion on the subject of knowledge company and knowledge economy, KM-literature refers basically to organizational aspects, without putting emphasis on the integration of the smallest and decisive unit concerning knowledge - the individual.

Apart from the importance of knowledge specialisation and experience, age is a factor which needs to be considered, when investment in human capital is expected. Following the economic approach, the age of an employee defines the remaining period necessary to calculate the return on knowledge investment.

A further element, belonging to the individual category, is opportunity costs. To take a decision means to chose between different opportunities. Following maximisation behaviour the benefit from the chosen alternative should be higher then the cost of the second best opportunity. Any commitment which hinders the selection of first best alternatives, reduces motivation and personal involvement in processes.

The second category refers to the relationship between individuals and contains elements which are related to management styles or personal benchmarks. While the management aspect focuses on the issue of uncertainty due to a lack of involvement in corporate decision-making, personal benchmarks deal with the issue of responsibility and image and how somebody is socially and economically ranked compared to others. Increasing uncertainty or a descent in ranking, raises intangible costs, which once may have had a direct impact on individual income and, therefore, may turn into tangible costs.

The third category refers to the environment which surrounds the employee and which is determined by formal and informal institutions. In change processes, organizational institutions which regulate the relationships between employee and company can be affected. Typical areas are internal communication, training standards, job evaluation, selection criteria of personnel, financial remuneration system, planning of staff, leadership, career plans and the organization of work. Changing or disappearing rules in these areas contribute to individual uncertainty and make it difficult to interpret and evaluate the new situation after change.

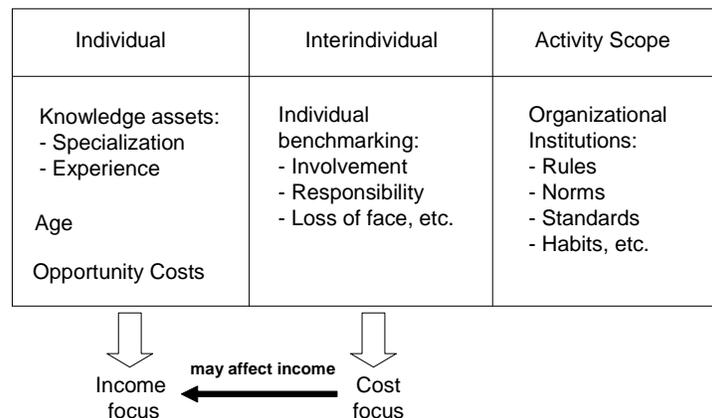


FIG. 2: INFLUENCING PARAMETERS IN CHANGE BEHAVIOR

The identified elements of the three categories influence individual decision-making in change processes and need to be integrated in the KM-model in order to identify cooperative or uncooperative behaviour. In doing so, KM turns into a broad management tool, not only for knowledge generation and dissemination, but also for the management of change and innovation.

## Developing the New Model

### Traditional KM-Models

Previous models of KM differ on one hand in their practical approach and on the other hand, on the bandwidth of distinguished perspectives on the topic. A practitioner focus, however, with a narrow perspective on the evaluation of intellectual capital, is the Skandia navigator. The Swedish company became an example of how to identify the value of knowledge in relation to five key areas of success: Finance, customers, process, innovation and human resources.<sup>26</sup> Similar to the Skandia Navigator, the Balanced Scorecard follows the idea of analyzing corporate vision and strategy from the different perspectives of finance, customer relations, internal processes and learning and growth.<sup>27</sup> Concentrated on human resource management, communities of practice put emphasis on the creation of focus groups for problem solving. The purpose of these groups is to deepen knowledge and gain expertise in concrete fields.<sup>28</sup> A practical but more holistic model of KM is developed by CIDEM, the Centre of Corporate Innovation and Development in Catalonia, Spain. The model integrates the different elements of organizational culture and strategic vision, people, technology and knowledge processes and recognizes them as fundamental for the implementation of KM.<sup>29</sup> The “Two Cycle Paradigm” of Riverola and Muñoz Seca combines the corporate learning process with the process of problem solving, stating that people learn when working on specific problems.<sup>30</sup> A stronger academic focus looks at the knowledge conversion model of Nonaka, which describes the process of knowledge creation by passing through the different types of knowledge.<sup>31</sup> Finally, Zahra and George emphasize the importance of knowledge for the potential capacity of a company and they have developed the absorptive capacity

model. The central point is that due to frequent changes in the corporate environment, knowledge potentials maintain the organization's strategic flexibility and, in doing so, support the competitive advantage.<sup>32</sup>

Despite their different focus, the above mentioned models do not include individual behaviour as a particular element. This raises the problem that the application of KM-techniques itself can fail due to unco-operative behaviour of employees and that the KM-tool cannot be used for the management of staff in the innovation processes. This seems to be contradictory, considering knowledge as a key element of innovation and having KM-tools available. The conclusion is that, conceptually, the existing KM must go beyond current concepts in order to extend its applicability for management.

#### **The Individualized KM-Model**

To meet the challenges of change processes with KM, the traditional KM perspective has to be broken down from the organizational to the individual level. This means integrating individual behaviour and decision-making, the asset aspect and the meaning of individual roles in organizations into an individualized concept of KM. The basis of the new model is given by Chandler, who indicates knowledge and motivation as the central figures of individual competence.<sup>33</sup> The point is that knowledge has to be managed in such a way that the employee can achieve his/her own objectives and that the company can benefit from this synergy. The art of management is not to motivate people but to awaken their individual motivation by creating an environment in which people identify themselves with the company. This is an ambitious goal, especially in changing organizations, and requires information about what drives people and in which direction. Within the economic reasoning of this study, the individual income-cost-balance is the key issue of motivation. As shown above, the quality of knowledge, defined by knowledge specialization and experience, is a direct influence on income and, therefore, also on motivation. The conclusion is that the core element of an individualized KM-model is the quality of individual knowledge, its use in organizational processes and the income it produces for the knowledge owner.

On the individual level, the task of KM is to define the individual knowledge performance through an analysis of specialization and work experience. Measuring indicators refer to professional and social competence as well as to observed abilities and incorporate all aspects which provide speciality in the employee. Some typical examples of indicators are a university degree, management training, participation in conferences, integration into networks, membership of associations, communicative and social capacity, sensibility and creativity. Concerning the individual motivation, income, resulting from the knowledge performance, age, which is not an individual competence, but affects human capital investments and experience, and the existence of opportunity costs are important factors to consider. The latter shows to what extent professional alternatives or private constellations influence the individual commitment to a company. The combined performance of knowledge and motivation indicates whether the employee is a special knowledge owner or not and whether he/she is willing to offer his/her knowledge to the company.

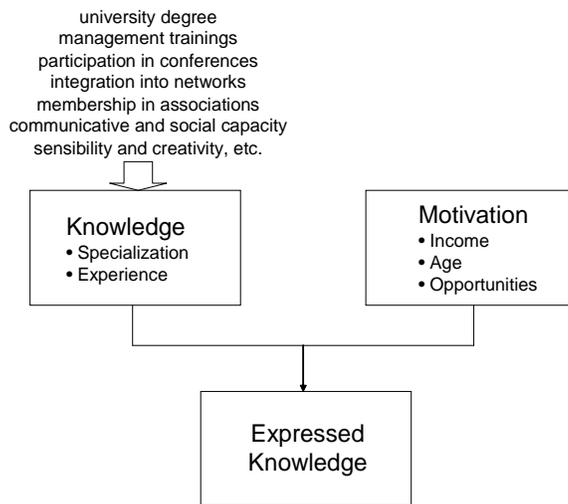


FIG. 3: INDIVIDUAL LEVEL OF THE INDIVIDUALIZED KM-MODEL

Whether the employee is willing to express his knowledge and then is also encouraged to do so, depends on his role in the company. The employee's formal or informal role is defined by responsibility, involvement in decision processes, image, etc. Roles are important in inter-individual behaviour and influence intangible assets such as prestige, reputation and social acceptance. They arise from formal and informal processes and limit the individual scope of activity within the company. A positive configuration of knowledge, motivation and role encourages the activation of knowledge in the company. Any change of roles which reduces the scope of activity is considered negative, creates aversion and reduces the employee's willingness to cooperate.

Change management has to take into account that depending on the individual evaluation of the above-mentioned factors, employees will either follow or resist change. In order to complete the whole picture, the organizational context of rules, norms, standards, habits, etc. must be observed concerning changes, due to their importance on the evaluation of situations.

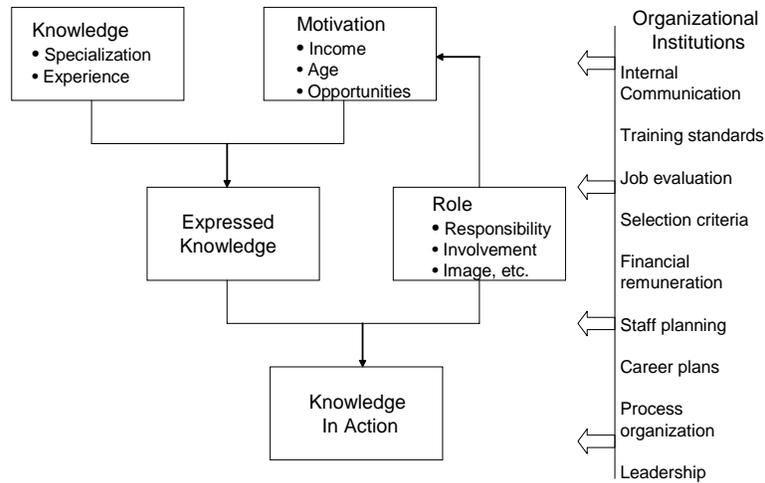


FIG. 4: INDIVIDUALIZED KM-MODEL

#### The Extended KM-Model

Traditional KM-models such as the organizational component oriented model proposed by CIDEM make their point on the importance of culture, personnel, technology and processes for knowledge creation and knowledge sharing. Frequently asked questions are: Is the organization prepared to share knowledge? Does knowledge acquisition benefit the organization?<sup>34</sup> Confidence and trust are recurring answers to the question of how to stimulate knowledge sharing. To create the right atmosphere, individual willingness to collaborate in KM is expected, which, additionally, can be awarded so as to motivate people. Although motivation is considered, there is no analytical view on individual decision behaviour. In this sense, the individualized KM-model contributes with a new perspective to the discussion and also opens the way for applications in change management and turns the focus from the organization to the individual.

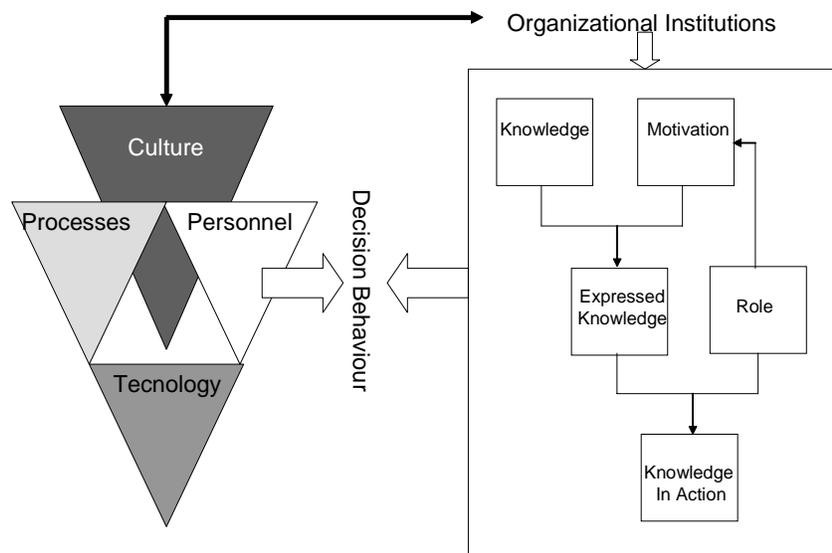


FIGURE 5: EXTENDED KM-MODEL

The innovative approach of the extended KM-model arises from the importance given to the individual. If management success is considered to be a dependent variable on workforce behaviour, then it would appear problematic to develop management tools on the organizational level without taking into account individual behaviour. This is even more problematic if the company focus is on pro-active management, such as Change Management or Innovation Management. The extended KM-model helps a) to organize knowledge (traditional approach) and b) to identify resistance to pro-active management (new approach). A further advantage is the possibility of discovering resistance in advance, if a process simulation, including the expected procedural, organizational and individual impact, can be made.

## Conclusion

If changing environments become a habit and knowledge turns into a critical success factor for companies, then corporate change and corporate knowledge need to be combined in a holistic view in order to develop KM as an adequate tool to manage both. Holism means to open traditional KM to decision theory and integrates components of this theory into KM. In doing so, the limited view of KM as an organizational knowledge generating concept shifts to a broader perspective of the utilization of knowledge in changing environments. This is an important aspect, when thinking that behaviour is driven by individual motivation and organizational circumstances. Changing circumstances may change motivation and, therefore, may influence in behaviour.

KM or innovation management are necessary in order to stand global competition, but need to be planned on the organizational and individual level. The research delivers an extended model of KM which combines both levels and allows to draw conclusions concerning cooperative or uncooperative behaviour. According to the first assumption of this paper, parameters were identified which affect motivation. Due to economic theory, the decision in choosing an alternative depends on the expected results. Although simple, this approach provides a clear decision

framework and helps interpreting behaviour. Influencing key parameters of behaviour exist on the individual and inter-individual level. A negative parameter value affect tangible income through asset devaluation.

Extending KM onto the individual perspective by integrating decision behaviour into the concept requires the analysis of the employee as a firm asset. Acknowledging the criticism to the economic approach, it treats the employee from the resource based view as this what he is – an asset. The important point is that the individual is the most important asset in the company and she/he behaves according to their motives. The extended KM-model takes into account the meaning of the human asset and delivers a concept of managing it.

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## End Notes

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# **Squeezing the Pips: International Pressures on Managers' Affective Well-being and Performance**

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## **Abstract**

Implicit in the drive for international competitiveness is the recognition that high-performing managers are essential for organisations to achieve and sustain competitive advantage. A critique is undertaken of the global economic pressures impacting on Western managers' jobs. The emphasis was on investigating an aspect of human behaviour with the potential to enhance managerial performance. Despite mixed empirical evidence from decades of research, there is support in the literature for the notion the 'happy-productive worker thesis.' A study is presented to establish which indicators of Australian managers' affective well-being and intrinsic job satisfaction predict dimensions of their contextual and task performance. A contribution of this study was to provide qualified support for the 'happy-productive worker thesis' by linking these conceptual bases and theories to managers' affective well-being, intrinsic job satisfaction and performance.

## **Introduction**

### **Globalisation and Western Economies**

International pressures to manage the increasingly complex and varied contingencies impacting on organisational performance are greater than ever (Patterson, West, Lawthom & Nickell, 1998). In this environment, managers' performance is central to the success of organisations. Achieving and sustaining high individual performance and organisational productivity in this intensely competitive economic environment has the potential to impact on the affective wellbeing of managers' worldwide (Kinicki, McKee & Wade, 1996). In dynamic, competitive markets, successful organisations are likely to be staffed with managers capable of adapting to constantly evolving roles, and with the capacity to achieve and sustain optimal levels of performance. Individual and collective affective wellbeing and the level of intrinsic job satisfaction are aspects of managers' performance that are critical to organisational survival and prosperity.

During the last four decades globalisation and market deregulation has dramatically altered the competitive landscape facing Western managers who were thrust into the turbulent economic environment of the mid 1970s, as a result of intense competition for domestic and international markets from North American, European, and emerging East Asian rivals. From the mid 1980s onwards, many Western economies began experiencing adverse terms-of-trade accompanied by an unprecedented growth in the current account deficits. In the 1980s and 1990s most Western societies experienced a significant decline in their international competitiveness (Ohmae, 1995; Guehenno, 1995). Consequently, managers were forced to adopt more sophisticated cost management approaches. For instance, the necessity for cash flow replaced short-term debt funding for asset management in the late 1980s, often resulting in a marked increase in accumulated foreign debt and associated interest payments.

Competition from countries with lower labour costs has forced companies in most industrialised countries to become more efficient and to reduce labour costs (Jones, 1995). In particular, many Asian nation-states have developed a distinct comparative advantage over many Western nations, primarily resulting from a ready supply of cheap labour, which was complemented by a willingness and capacity to adopt new technologies, competitive marketing and business strategies (Ohmae, 1995; Guehenno, 1995). Western economies are likely to remain under pressure to reduce the cost of labour. In contrast, many competitively strong countries, such as the USA, Japan,

Germany, and Switzerland have relatively high wage rates and innovation is a critical differentiator of national competitiveness.

These events were preceded by the reduction in prominence of the nation-state and deregulation of the global economy (Porter, 1990; Ohmae, 1995; Guhenno, 1995). Enterprises have faced rapid technological advances, coupled with globalisation, resulting in dramatic changes to organisational structures. Since the 1980s, downsizing and delayering has emerged as a pervasive international trend (Palmer & Dunford, 1996; Cascio, 1993). Flatter organisational structures have emerged from significant downsizing and the uptake of new technologies. These changes have compelled a shift in the pace and direction of managerial practices (Quinn, Faerman, Thompson & McGrath, 1996; Hammer & Champy, 1993, Limerick & Cunningham, 1993).

## **Globalisation and Western Managers**

With increased global competition, Western managers are being required to adapt to the liberalisation of world trade and investment regimes, such as the deregulation of financial markets (Brooks & Faff, 1997). Managers are in an era that demands competencies with global relevance, and where managers are expected to efficiently perform a wider range of complex functions. These changes have increased the strain on managers with consequent increases in the incidence of stress, and burnout and subsequent impact on performance (Forster & Still, 2001). These economic dynamics have at times provided a strong impetus for employers and governments to pursue ways of improving efficiency and global competitiveness (Kramar, 1991). Structural micro and macro economic reforms implemented by the government in the 1990s were intended to make the firms more internationally competitive (Hilmer, 1993). These developments have had considerable impact on managers who must now operate within these global dynamics. As a consequence, the roles and performance expectations of managers have changed substantially. For organisations with international responsibilities and aspirations, some managers are now required to perform highly complex tasks, such as coaching employees for overseas assignments and developing skills that are transferable to international settings.

Managers were formerly required to achieve results directly through people, using a centralised and narrow span of control. Several levels have been eliminated from organisational hierarchies, resulting in managers having a more dispersed span of control (Beittenhausen & Fedor, 1997). Relinquishing this direct supervisory role has necessitated that managers perform different roles, such as empowering employees and facilitating team-based work. At the same time, some managers' jobs require that specialised tasks be performed to increasingly higher levels of efficiency. These changes to the workplace require more sophisticated and comparable measures of managers' performance in order to ascertain individual contributions to organisational effectiveness. Managers' jobs are likely to become more complex and, as a consequence more demanding in the future. As the marketplace becomes further deregulated, outsourcing is likely to increase. In this scenario, managers' roles are evolving more into managing the outsourcing of an organisation's needs rather than just managing human resources. Technological developments will exacerbate this trend. These global trends are likely to continue to have a significant impact on all aspects of managers' jobs.

Enterprises are under increasing pressure to improve productivity, while simultaneously reducing costs, resulting in an epidemic of 'corporate anorexia' (Hamel, 1996). A new enterprise formula is emerging - '1/2 x 2 x 3' - whereby half as many people are being paid twice as much, to produce three times more (Handy, 1996). This trend to 'squeezing the pips' is particularly evident for managers, where the incidence of stress and burnout is increasingly common (Reinhold, 1997; Quinn, et al; 1996). Organisational dynamics experienced by Australian managers are indicative of those facing most nation states and economies. Australian managers are under increasing pressure to produce superior results in shorter time frames, with fewer resources (Forster & Still, 2001; Coles, 1999). Handy (1996) considered the '1/2 x 2 x 3' formula 'about right' for Australia, New Zealand, the United Kingdom and North America. This formulae may well apply to a wide range of Western managers.

## **Human Resource Management and Business Performance**

An empirically compelling argument supporting the relationship between human resource management (HRM) and commercial performance is made by Patterson, West, Lawthom, & Nickell (1998). Compared to other management practices (e.g., strategy, quality focus, investment in research and development), HRM practices explained 18 per cent of the variation in productivity and 19 per cent in profitability of companies in the United Kingdom. Two clusters of skills - the acquisition and development of employee skills (including the use of appraisals), and job design - were shown to be particularly important. A strong causal link has been established between HRM practices and business performance by Patterson et al. (1998).

A central point in the debate over the significance of managers to firms competitiveness is the assertion that "good managers are the key to a more competitive economy and higher performing enterprises" (Karpin 1995: 1). Ascertaining the factors that determine managers' performance has the potential to assist in initiatives to improve firms competitiveness. Managers are pivotal to an organisation's productivity and effectiveness, since they have ultimate responsibility for maximising the resources available for organisations to create value (Jones, 1995). As Sanchez and Heene (1996: 13) assert, "managers' cognitive processes are at the head of a chain of causality that can eventually reshape the nature of competition in an industry"; a proposition extended here by determining the contribution of managers' affective wellbeing and intrinsic job satisfaction to this process.

The resource-based view of the enterprise recognised the value added by human capital (Wernefelt, 1984; Hamel & Prahalad, 1994). Regardless of the industry or country concerned, managers represent the human capital that is critical to an organisation's success (Williams, 1991). Any decline in managers' performance inevitably results in revenue foregone, opportunities lost, and increased costs. In turn, this outcome is likely to hamper the capacity of organisations, and ultimately national economies, to create wealth. Findings from a study by Hosie, Forster & Sevastos (2003) into managers affective wellbeing, intrinsic job satisfaction and performance are applicable to managers in other international working situations because they are critical to the success, or failure, of a range of enterprises (Carlopio, Andrewartha & Armstrong, 1997).

To reach and sustain heightened levels of performance, and to avoid burnout in this environment, it is desirable that organisations develop strategies for maintaining managers' affective wellbeing and intrinsic job satisfaction. Of the three psychological aspects of burnout (emotional exhaustion, depersonalisation, diminished sense of personal accomplishment), Lee and Ashforth (1996) found emotional exhaustion is increasingly prevalent in Western workplaces. By establishing how affective wellbeing and intrinsic job satisfaction influences behaviour, it will be possible to predict how deterioration, or an improvement, in affective wellbeing and intrinsic job satisfaction impacts on managers' performance (Hosie et al. 2003). Similarly, management practices that increase managers' affective wellbeing and intrinsic job satisfaction may result in corresponding reductions in workplace tension and improved efficiency. Such information may be used to develop recommendations about changes that are likely to promote a healthier and more supportive work environment for managers.

## **'Hard' and 'Soft' Contributions to Managers' Performance**

An important aspect of organisational behavioural research, concerns optimising an organisation's less tangible assets. Individual task performance only captures a portion of what managers contribute to organisations. This portion is mainly attributed to the knowledge, skills, abilities and experiences of managers. Contributions beyond task performance may be more accurately termed discretionary behaviour. These behaviours contribute to organisational effectiveness and go beyond 'soft' psychology, or 'humanistic' concerns to become a critical part of the managers' contribution. As Barnard observed, "successful cooperation in, or by formal organizations, is the abnormal, not normal condition" (1938: 5), as:

*perhaps the reason for the dearth of explanatory power of the 'softer' side of I/O psychology in the study of performance has not been because it is too soft, but that our dependent variable, 'performance', has been too hard.* (Organ & Paine 1999: 338)

Such an approach has the potential to improve the interconnections between management disciplines, as well as providing useful insights for related fields (Staw, 1986). The mutual contribution of 'soft' (people-driven human resource features, such as motivation and leadership), and 'hard' (market-driven forces such as strategy formulation and program evaluation), aspects of management have yet to be established (Nankervis, Compton & McCarthy, 1996). Hence, the soft aspects of managers' performance may be associated with hard organisational outcomes, such that these:

*two apparently disparate approaches are not necessarily mutually exclusive. They can be reconciled through a contingency framework, which provides guidance on the positioning of an organisation's human resource strategies as part of the organisation's overall change strategy and ultimately its business strategy.* (Dunphy & Stace, 1990: 87)

Many studies have confirmed that the so-called 'soft skills' are critical for a vital economy (Boyatzis, Goleman, & Rhee, 2000; Spencer, McClelland & Kelner, 1997; Carnevale, Gainer, Meltzer, 1988). Integrating 'soft' (affective wellbeing and intrinsic job satisfaction), or less tangible aspects of managers' performance, with 'hard' (performance) aspects of management is relevant to the attainment of organisational performance outcomes. When human potential is expertly integrated with organisational strategies, it has the potential to liberate a powerful additive force. Information about the relationships between managers' affective wellbeing and their performance may assist in identifying those managers who are likely to sustain heightened levels of performance, and thereby, to survive and prosper in global competitive environments. This will potentially contribute to optimising managers' capacity to create value for organisations (Bommer, Johnson, Rich, Podsakoff & McKenzie, 1995).

## **Research into the 'Happy-Productive Worker' Thesis**

There has long been an adherence to the intuitively appealing notion that happy employees perform better. Decades of research have been unable to establish a strong link between intrinsic job satisfaction and performance. Belief in the 'happy-productive worker' thesis has its roots in the Human Behaviour School of the 1950s. Similarly, the 1970s Human Relations Movement had a significant influence on job redesign and quality-of-life initiatives and was credited with specifying the original satisfaction-performance relationship (Strauss, 1968).

Reasoning and research into the construct of happiness preceded research into affective wellbeing. Emotions and happiness are first order conceptual bases of affective wellbeing. Affective wellbeing refers to feelings about either life in general (i.e., 'context-free'), or in relation to a specific domain (i.e., 'job-related'). In relation to affective wellbeing, the term 'job' refers to the specific tasks undertaken by individuals in a particular setting (Warr, Cook & Wall 1979: 1179). Intrinsic job satisfaction refers to the internal state associated with characteristics inherent in a job, such as utilisation of skills, amount of job complexity and opportunities for control, amount of responsibility, and challenges (Clegg, Wall & Kemp, 1987; Brayfield & Rothe, 1951).

Hosie et al. (2003) have progressed the debate over 'happy-productive worker' thesis by determining which aspects of managers' affective wellbeing, intrinsic job satisfaction indicate managers' contextual task performance. Managers' performance is defined by Hosie (2004: 63) as "the recent net contribution value to organisational effectiveness and goals, attained in conjunction with people, determined by events under managers' control, in a particular environment." Two types of performance are distinguished in the literature: contextual and task (Borman & Motowidlo, 1993; Motowidlo, Borman & Schmit, 1997). Both domains of performance contribute to accomplishing organisational goals, but through different mechanisms. Managers' performance mainly constitutes task performance, which is defined as the "effectiveness with which job incumbents perform activities that contribute to its technical core either by directly implementing a part of its technological process, or by providing it with needed materials or services" (Borman & Motowidlo, 1997: 99). Contextual performance deals with the psychological linkages between people and is represented by discretionary forms of contributions to the organisation that have uncertain or indirect rewards compared to task performance (Organ & Paine, 1999).

## Methodology

A number of research questions and hypotheses were investigated in the study by Hosie et al. that were derived from the literature. An empirical methodology was used to test the hypotheses to enable the research questions to be answered. A questionnaire of 19 Western Australian organisations was undertaken during 1998/99 to collect cross-sectional data to answer the research question, test the hypotheses and model. Data was collected using self-report measures of affective wellbeing and intrinsic job satisfaction, and downward appraisal of managers' performance (by the person to whom managers reported). A composite selection of private, public and 'third sector' organisations was surveyed, representing managers from a range of occupational groups. A total of 400 useable questionnaires were returned from the 1,552 distributed, representing a 26% useable response rate.

Self-report data was used to measure managers' affective wellbeing and intrinsic job satisfaction. Self and superior appraisals were used to gauge managers' performance. Job-related affective wellbeing (Sevastos, 1996a) and intrinsic job satisfaction (Sevastos, 1996; Cook, Hepworth, Wall & Warr, 1981a) items were obtained from published scales. These instruments were acceptable for measuring state and trait affective wellbeing and managers' performance. Using two independent sources of information, one for the DVs (i.e., one to one supervisory ratings of managers' performance) and the other for the IVs (i.e. managers' self-report measures of affective wellbeing and intrinsic job satisfaction) eliminated unnecessary noise in the data caused by common method variance.

Answering the research questions required the development of an instrument to measure the structure of managers' contextual and task performance. Managers' contextual and task performance items were devised from Borman and Brush's (1993) and Borman and Motowidlo's (1997) taxonomies of managers' performance. An eight-dimensional construct of performance was tested through confirmatory factor analysis. The performance construct was operationalised in terms of four contextual performance dimensions (*Endorsing, Helping, Persisting, Following*) and four task performance dimensions (*Monitoring, Technical, Influencing, Delegating*). These dimensions were confirmed through multi-sample analysis and cross-validation techniques of managers' and superiors' ratings on performance ( $n = 200$  and  $n = 125$ , respectively). Canonical correlation standard multiple regression were used to analyse the linear combination ( $n = 125$ ) of managers' self-reported affective wellbeing and job satisfaction with superiors' rating of managers performance for contextual and task performance.

## Partial Model of Managers' Affective Wellbeing, Intrinsic Job Satisfaction and Performance

The model was refined into two orthogonal dimensions of affective wellbeing, intrinsic job satisfaction and performance as illustrated in Fig. 1.

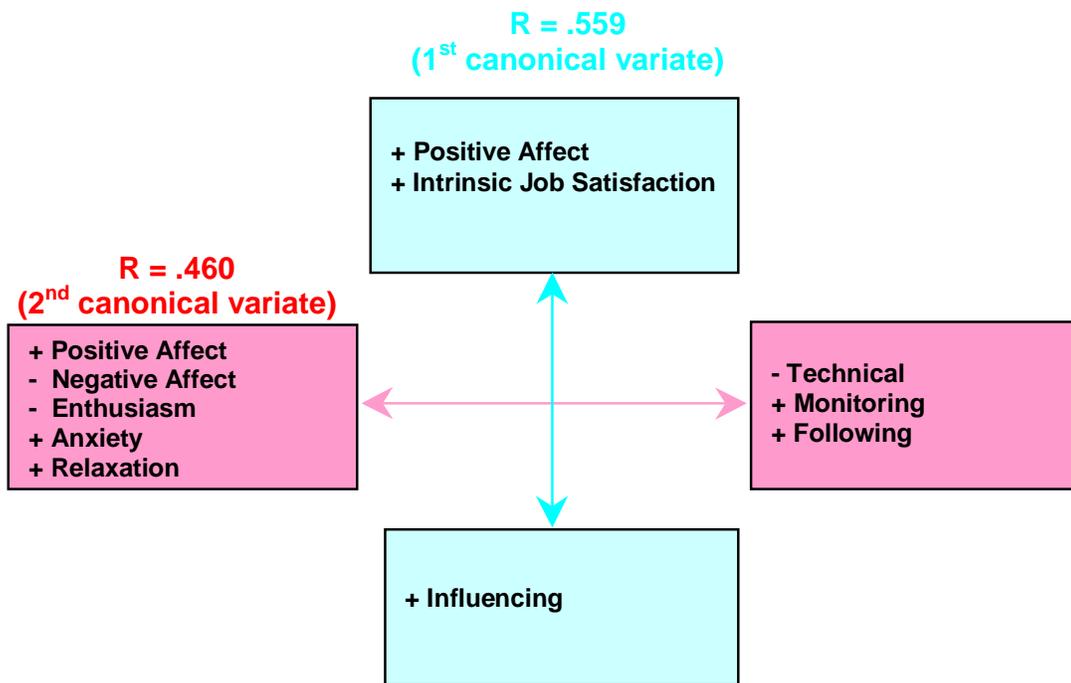


FIG 1: A MODEL OF MANAGERS' AFFECTIVE WELLBEING, INTRINSIC JOB SATISFACTION AND PERFORMANCE (N = 125)

Affective wellbeing and intrinsic job satisfaction was found to predict different dimensions of managers' contextual and task performance. As predicted, positive affective wellbeing was associated with enhanced managerial performance, whereas poor affective wellbeing indicated diminished performance. Certain aspects of managers' affective wellbeing and intrinsic job satisfaction (Enthusiasm, Positive Affect, Intrinsic Job Satisfaction and to a lesser extent Anxiety) were found to be most influential for managers' contextual performance (Following) and task performance (Monitoring, Influencing, Technical). A large amount of this variance of performance was explained by affective wellbeing and intrinsic job satisfaction that enhanced the predictive power of the Model. The first canonical variate explained 31.25% of the variance of performance and the second canonical variate explained 21.16% of the variance of performance. Thus, each of the canonical variates separately accounted for substantial amounts of managers' performance in relation to affective wellbeing and intrinsic job satisfaction.

In the first canonical variate, Positive Affect (PA) and Intrinsic Job Satisfaction were strongly associated with Influencing is shown as Figure 1. Positive Affectivity is a trait personality characteristic associated with extroversion, a personality characteristic that is central to managerial jobs in dealing with peers, superiors, subordinates and external constituents. Possibly, an engaging personality is the reason that individuals are promoted, or self-select into managerial positions. PA may enable managers to influence decisions from which they derive considerable Intrinsic Job Satisfaction, which has a substantial cognitive component. Alternatively, the opportunity to Influence decisions within an organisation may result in enhanced Intrinsic Job Satisfaction and heightened PA.

## Conclusions about the Data

The canonical variate showed a complex set of relationships between aspects of affective wellbeing, intrinsic job satisfaction and performance. PA, Anxiety and Relaxation were positively associated with the contextual performance variable, Following, and the task performance variables Monitoring and Technical, while Negative Affectivity (NA), or Neuroticism) and Enthusiasm were negatively associated with performance variables (Technical, Monitoring and Following). This indicated that high arousal (positive PA with negative NA) was present, but job dimensions were not particularly motivating (as indicated by negative Enthusiasm but positive Relaxation). This finding indicates that managers will experience arousal but low distress when undertaking transactional roles.

Another explanation for the second canonical variate may be that aspects of managers job requiring essentially transactional or administrative roles (negative Technical, with positive Monitoring and Following) may lead to high arousal with positive PA and Anxiety, but provide opportunities for Relaxation in conjunction with negative Enthusiasm and NA. A positive association with Monitoring and Following indicated that these performance characteristics require vigilance and consequently high arousal (Anxiety and PA with the attendant NA), but do not lead to a motivating environment (negative Enthusiasm). Monitoring and Following provide opportunities for Relaxation that leads to acceptable levels of affective wellbeing. Managers reported PA, a personality trait, to be the only variable common to both dimensions of contextual and task performance, indicating that it may be a prerequisite for managerial jobs. From this finding it could be inferred that managers will have a positive disposition to work.

An association was found between affective wellbeing, intrinsic job satisfaction and managers' contextual and task performance. Contextual and task performance was found to be significant predictor for PA. As anticipated by Judge et al. (2001), Intrinsic Job Satisfaction was found to be associated with performance. Affective wellbeing self-report (PA, Intrinsic Job Satisfaction) was positively associated with a dimension of superiors' report on task performance (Influencing). Positive associations for dimensions of affective wellbeing self-report (PA, Anxiety and Relaxation) were negatively associated with dimensions of superiors' report on task performance (Monitoring) and contextual performance (Following). PA, Anxiety and Relaxation were also negatively associated with a task performance dimension (Technical).

As predicted, positive affective wellbeing was found to result in enhanced managers' performance, and poor affective wellbeing to be detrimental to managers' performance. Consistent with Warr's (1992) *Vitamin Model*, a link between managers' affective wellbeing, intrinsic job satisfaction and performance was evident. Also consistent with Warr's (1992) findings, those in higher-level jobs (e.g., managers) reported less job-related depression, but significantly more job-related anxiety. PA was found to be a significant predictor of task and contextual performance, supporting George and Brief's (1996) argument that PA (one of the indicators of extraversion) is related to distal and proximal measures of motivation.

PA, Anxiety and Relaxation were positively associated with the task performance variable Monitoring, and the contextual performance variable Following, but negatively associated with the task performance variable Technical. This result is consistent with the Hay Group (1999) finding that less than 10% of FORTUNE 500 companies attributed technical ability to result in high potential managers and leaders careers becoming 'derailed'. NA and Enthusiasm were negatively associated with Technical, Monitoring and Following, indicating a level of 'disengagement'. PA is an 'activation-based' affect that was positively associated with the task performance variable, Influencing. Thus, managers' who have high PA and intrinsic job satisfaction are more likely to influence decisions. Technical expertise was not considered to be an important aspect of manager' task repertoire. As Goleman noted "outstanding supervisors in technical fields are not technical but rather relate to handling people" (1998: 21). Managers with PA are likely to experience elevated anxiety, but have opportunities for relaxation when undertaking Monitoring and Following work.

## **Conclusions about the 'Happy-Productive Worker' Thesis**

Despite mixed empirical evidence, there is support in the literature to suggest that a relationship exists between managers' affective wellbeing and their performance. Wright and Staw (1999a,b) claimed that a person's disposition towards happiness, not organisational conditions, was associated with performance. Ledford (1999) extended this reasoning by concluding that if "only trait-based happiness leads to performance, it was pointless to try to make employees happier as a way of improving performance" (1999: 30). This position assumes that employees are either born happy or unhappy, and that such a demeanour would not change, notwithstanding the design of a job. However, a vast literature exists to indicate that trait affect is not solely determined by hereditary (Hesketh 1993; Ilgen & Hollenbrook, 1991; Gardner & Cummings, 1988; Gerhart, 1987; Broadbent, 1985; Hackman & Oldham, 1980, 1975).

PA was the only variable to be significantly associated with both task and performance dimensions. This indicated that managers with high PA were likely to perform well when Influencing, and when undertaking Monitoring and Following roles, supporting the argument that managers' with dispositional PA will outperform those who are unhappy (negative PA). This study supports Wright and Staw's (1999a,b) claim that a person's disposition is associated with performance. However, this position should not be taken as evidence to support the Wright and Staw's contention that organisational conditions do not influence the happiness of managers. A person's genetic makeup, socialisation and life experiences all contribute to happiness.

As predicted, positive affective wellbeing and intrinsic job satisfaction was related to enhanced managerial performance and poor affective wellbeing indicated reduced performance. Affective wellbeing self-report (PA, Intrinsic Job Satisfaction) was found to be positively associated with a dimension of superiors' report on task performance (Influencing). Positive associations for dimensions of affective wellbeing self-report (PA, Anxiety and Relaxation) were found to be negatively associated with dimensions of superiors' report on task performance (Monitoring) and contextual performance (Following).

The direction of the relationship is between the variables reported in the literature is from affective wellbeing, intrinsic job satisfaction to performance (Warr 1999). These findings do not provide evidence of causation. As Ashkanasy, Hartel, Fischer and Ashforth stated, "[p]erformance is another likely concomitant of affect at work, though whether it is a cause or a consequence is unclear" (1998: 4). The analysis does provide for certain inferences to be made about the relationships between aspects of managers' affective wellbeing, intrinsic job satisfaction and performance. Hosie et al. (2003) has empirically examined the 'happy-productive worker' thesis, by establishing the impact of job-related affective wellbeing and intrinsic job satisfaction on Australian managers' performance.

## **Implications for Human Resource Development**

Since behaviour is something that can be changed and developed, the emphasis in this investigation was on developing an aspect of human potential to enhance managerial performance. Training and development efforts have not always distinguished between cognitive learning and emotional learning, but such a distinction is important. A shift in attitude and emphasis is needed for this to occur, beginning with recognition of the importance of affective well-being and the contribution of intrinsic job satisfaction to managers' performance. Creating ingrained patterns of thoughts, feeling and behaviour may require an extensive development effort over several months, and may require three to five years to be fully developed (Cherniss & Goleman 2001, Boyatzis 2000). Developing emotional intelligence takes time and, most of all, commitment from organisations and individuals. Benefits that flow from a well-developed emotional intelligence, for both the individual and the organisation, make the effort and cost worthwhile. Emotional competence requires emotional learning to be recognised and given the similar prominence as cognitive learning.

A growing body of research on emotional learning and behaviour change suggests that it is possible to help people of any age to become more emotionally intelligent at work. However, many programs designed to do so fail to recognise the difference between two types of learning. An "emotional competence is a learned capability based

on emotional intelligence that results in improved job performance" (Goleman, 1999: 25). According to Goleman. "[C]ompanies are naive in how they spend their development dollars in training for people skills - they can get a far better return on their investment if they do it right ... The rules of work are changing. We're being judged by a new yardstick: not just how smart we are, or our expertise, but also how well we handle ourselves and each other" (Goleman, 1998: 317). Emotional intelligence may be a core competency of prospective managers. As Rozell; Pettijohn; & Parker (2002) concluded "... potential manager's understanding of management techniques dealing with interpersonal interaction and intrapersonal emotions may have a fundamental place in the overall success of that individual in the workplace." (p.287). Hosie's et al study reinforces the need to rethink how we approach developing soft skills in the workplace.

Cognitive learning involves fitting new data and insights into existing frameworks of association and understanding, extending and enriching the corresponding neural circuitry. But emotional learning involves more – it requires that we also engage the neural circuitry where our social and emotional habit repertoire is stored. Changing habits, such as learning to approach people positively instead of avoiding them, to listen better, or to give feedback skilfully, is a more challenging task than simply adding new information to old. Motivational factors also make social and emotional learning more difficult and complex than purely cognitive learning.

Emotional learning often involves ways of thinking and acting that are more central to a person's identity. Goleman (1998) has specifically linked the ability to *influence* to emotional intelligence. However the importance of emotional intelligence needs to be kept in perspective, "[e]motional intelligence skills are synergistic with cognitive ones: top performers have both" (Goleman, 1998: 21). Developing managers' emotional competencies requires a broad and sophisticated array of development tools. Traditional training needs to be blended with a variety of ongoing planned development, such as career assignments and individual coaching. A period of months involving ongoing coaching, encouragement, peer support, modelling and on-the-job practice is necessary (Hay Group, 1999). Such initiatives have do have important resource implications for organisations.

## Conclusion

Certain indicators of affective wellbeing and intrinsic job satisfaction are argued to predict dimensions of managers' job performance. The impact of affective wellbeing and intrinsic job satisfaction on managers' performance was established. As global market forces become more pervasive, optimising so-called hard and soft HRM strategies is likely to become more important to enhancing managerial health, performance, and organisational prosperity. This position has been predicated on the assumption that improved affective wellbeing and intrinsic job satisfaction may result in improved managerial performance, which will eventually result in increased organisational productivity. Enhanced individual performance may also result in increased benefits and reduced an enterprises costs, and ultimately more effective organisational outcomes. A considerable amount of the variance of performance was shown to be predicted by affective wellbeing and intrinsic job satisfaction, and vice versa. Explaining this variance made it possible to develop a model of managerial affective wellbeing, intrinsic job satisfaction and performance with enhanced predictive power.

Elements of affective wellbeing and intrinsic job satisfaction were identified that indicate how managers gain and sustain heightened levels of performance. Hosie's et al. study investigated the impact of individual affective wellbeing and intrinsic job satisfaction on managers' performance. Managers' jobs might be improved to enhance, or avoid decline in, managers' affective wellbeing, intrinsic job satisfaction and performance. In turn, this helps to explain the process of upward and downward spirals of managerial effectiveness, whereby positive or negative affective wellbeing and intrinsic job satisfaction leads to increased or reduced performance, which in turn either enhances positive, or exacerbates negative affective wellbeing and intrinsic job satisfaction. These issues need to be addressed if enterprises are to operate effectively, in an integrative manner.

This research established which indicators of the managers' affective wellbeing and intrinsic job satisfaction predict dimensions of their contextual and task performance. An empirical methodology to predict which indicators of managers' affective wellbeing and intrinsic job satisfaction predict dimensions of their performance. Components of managers' affective wellbeing and intrinsic job satisfaction were identified that predict

dimensions of their performance. Happiness was found to contribute to self-motivation, and that this facilitates organisational effectiveness, or that performance is a barometric of the feeling that managers are effective. This study lends qualified support for the proposition that happy managers perform better but the 'happy-productive' worker thesis is yet to receive unequivocal empirical support. Well-performing managers could also be happy as a consequence of their effective performance and the resulting rewards.

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# **The Impact of Total Quality Management (TQM) Practices on Business Performance in Service Sector: Does Service Quality Mediates the Relationship**

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## **Abstract**

**It is observed that organizations, both manufacturing and service have realized the importance of quality. However, there is still a dearth of TQM study in the service sector. This research attempts to investigate the impact of TQM practices on service quality in service organizations. The intention of this study was to examine the relationship between TQM practices and service quality. Questionnaires were distributed to the managers of 175 service organizations in northern region of Malaysia. The results show that there is some support for the claim.**

## **Introduction**

The emergence of the service industry nowadays has increased the researchers' interest in service quality. In relations, the main objective of TQM is to establish a management system and corporate culture to ensure that customer satisfaction is enhanced, which involves a systematic method for continuous improvement of organizational processes, resulting in high quality products and services (Waldman, 1994). Quality system like TQM could lead to a better service quality and organizational performance (Cook & Verma, 2002).

However, most of what has been written on TQM is usually related to manufacturing related organizations (Agus & Abdullah, 2000; Agus, 2000; Ljungstrom & Klefsjo, 2002) even though it is widely believed that concepts and principles under TQM are equally relevant to service organizations. There is a shortage of TQM study in the service sector in general (Brah, Wong, & Rao, 2000). Therefore this research tries to investigate the impact of TQM practices on service quality in service organizations.

### **TQM and Service Quality**

Quality programs are designed to boost the organization's potential revenue and reduce the cost of quality (Banks, 1992). Previous empirical studies regarding the linkages between TQM and organizational performance as well as quality have shown strong and positive results. This is agreed by Ahire et al. (1996), Flynn et al. (1994), and Samson and Terziovski (1999). This is true since the main focus of TQM as suggested by Deming (1982), Juran (1988), Crosby (1979), and Ishikawa (1972) is to improve quality. A research on the relationship between TQM practices, quality performance, and innovation performance conducted by Prajogo and Sohal (2003) concluded that TQM is significantly and positively related to quality performance as well as innovation performance.

According to Antony et al. (2002), successful TQM implementation will give benefits in improving quality and reducing rework as well as reduction in costs of poor quality such as scrap, rework, late deliveries, warranty, replacement, etc.

Furthermore, Brah et al. (2002) supported the proposition that TQM implementation correlates with quality conformance. Behavioral factors such as role of top management leadership, customer focus, human resource focus, and quality focus as well as TQM tools and techniques like corporate planning, process focus, and information and analysis contribute to the successful TQM implementation.

Other TQM elements also give a better result to an organization. When organizations provide supportive structures and processes like TQM for their employees, these employees are more able to provide top quality products and services to their external customers (Gilbert & Parhizgari, 2000).

Cook and Verma (2002) in their study on linkages between quality system, service quality and performance excellence found that according to the perceptions of the bank's employees, quality systems affects service quality that in turn relates to organizational performance.

Litton (2001) also said that TQM process improves quality and service. He concluded in his paper on TQM – Concept Articulation that effective TQM processes can generate marked improvements in both product and service quality which then resulted in increased customer satisfaction and organization's profitability.

As cited by Geralis and Terziovski (2000), Roth and Jackson (1995) found that by establishing a motivated, customer oriented management philosophy and practice; internal service quality levels will be more favorable. They also found that employees' processing organizational knowledge and skills are important in delivering service quality in which high levels of employee morale and satisfaction were found dependent on the empowerment and involvement of employees. All the customer focus, employees' skills and knowledge as well as their empowerment and involvement are some of the practices under TQM. Therefore TQM can lead to a better level of service quality in organization.

## **Literature Review**

### **TQM Practices**

A distinction can be made between the TQM content, elements, processes or practices. It is so-called elements (Waldman, 1994) practices and principles (Dean & Bowen, 1994), values and techniques (Hellsten & Klefsjo, 2000), processes and contents (Reed, Lemak, & Mero, 2000), interventions (Hackman & Wageman, 1995), principles and precepts (Sitkin, Sutcliffe, & Schroeder, 1994), etc. Although definitions do not coincide in full, all of them still refer to those fundamentals that make up TQM theoretical frame without which the management system implemented in the organization or the philosophy on which it is based could not be called TQM (Javier, Antonio, & Mignel, 2003).

Saraph, Benson, and Schroeder (1989) argues that there are eight critical success factors (CSFs) for TQM implementation such as: top management leadership, role of the quality department, training, product design, supplier quality management, process management, quality data reporting, and employee relations.

Meanwhile, Black and Porter (1996) reveals ten major TQM practices. They are people and customer management, supplier partnerships, communication of improvement information, customer satisfaction orientation, external interface management, teamwork structures for improvement, operational quality planning, quality improvement measurement systems, and corporate quality culture.

Even so, Antony et al. (2002) describes eleven TQM practices: management commitment, role of the quality department, training and education, employee involvement, continuous improvement, supplier partnership, product/service design, quality policies, quality data and reporting, communication to improve quality, and customer satisfaction orientation.

Sureshchandar, Rajendran, and Anantharaman (2002) expands the practices even further and come out with twelve major practices comprise of top management commitment and visionary leadership, human resource management, technical system, information and analysis system, benchmarking, continuous improvement, customer focus, employee satisfaction, union intervention, social responsibility, servicescapes, and service culture.

Brah et al. (2000) in their study on TQM and business performance in Singapore service sector has come out with eleven constructs of TQM implementation, which are the top management support, customer focus, employee involvement, employee training, employee empowerment, supplier quality management, process improvement, service design, quality improvement rewards, benchmarking, and cleanliness and organization.

Based upon the above literature, the researcher has selected the following list of seven main practices of TQM implementation for this study. All practices are selected due to their relation and mostly support in service organization and market oriented behavior: management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus, and continuous improvement. All these seven practices are among 25 TQM practices listed to be the most common extracted across 76 studies on TQM (Sila & Ebrahimpour, 2002).

### **Management Support and Commitment**

To be successful TQM must be top-management driven and focus on maximizing efficiency and effectiveness, and promoting market dominance through improving systems and processes, error prevention, and aligning business objectives and customer needs (Agus et al., 2000). It was found by Ahire, Golhar, and Waller (1996), Flynn, Schroeder, and Sakakibara (1994), Grandzol (1998), and Powell (1995) that top management commitment was positively correlated with many performance measures such as financial and operational results and customer satisfaction.

### **Employee Involvement**

Since the philosophy of TQM is to prevent defects of goods or services early in the production process rather than fix it at a later stage, employee commitment is a necessary element for successful TQM implementation (Lee & Howard, 1994). Quality is everybody's responsibility (Gunasekaran & Goyal, 1998) involving each employees which results to better service quality and market oriented behavior that in turn relates to high organizational performance.

### **Employee Empowerment**

Another key focus area in the TQM implementation is the empowerment of employees like work groups, task teams, functional teams and self-management teams. To be succeeding, both employees and managers must be committed enough and trusteeship must be developed among them (Dean & Helms, 1996). Empowerment practices when simultaneously implemented have a favourable effect on employee well being, productivity, performance and service quality (Geralis & Terziowski, 2003).

### **Information and Communication**

Organization should have correct information to ensure all employees understand with the organization and its process. Therefore, to make sure the information is accurately and effectively disseminated to the right person at the right time, organization need to have a good communication system. Anjard (1998) mentioned that a better communication could be accomplished if an organization implements the TQM effectively. This is because in TQM, people will communicate more open and frequent among them.

### **Training and Education**

In order for employees to be committed and actively participate and contribute their ideas to the successful of TQM, they need to be trained and educated. According to Juran (1989), training must be provided to all employees from all levels. The employees' level of knowledge can be reinforced depending on the attention paid to training and education by the system.

### **Customer Focus**

According to Brah, Serene, and Rao (2002), customer focus refers to organization's effectiveness in recognizing its customers' needs, wants and expectations. It is believed that the focus on their needs is important in serving better quality of service (Patel, 1995). Issues related to customer focus and satisfaction received the biggest coverage in the TQM survey literatures analyzed here given the major push toward a customer satisfaction orientation in virtually all types of businesses (Sila & Ebrahimpour, 2002).

### **Continuous Improvement**

Continuous improvement is always refer to better and better quality, less and less variation, which results from process management practices that bring improvements and innovating in products, services, and processes (Zairi, 2002). Work process and improvements are very much focused in TQM implementation (Antony et al., 2002) in which employees will contribute more on the elimination of root causes instead of problem corrections. All of these are to ensure increase in quality and reduce rework and wasting of time.

### **Service Quality**

A service is a process that leads to an outcome during partly simultaneous production and consumption processes (Gronroos, 2001). Service quality is the great differentiator; it gets and keeps the customer's attention (Berry, Parasuraman, & Zeithaml, 1988). According to Gronroos (1984) and Parasuraman, Zeithaml, and Berry (1985, 1991), the traditional approach for defining service quality emphasizes that service quality perception is a comparison of consumer expectations with actual performance. Chia et al. (2002) simplified the definition of service quality as a comparison between consumers' expectations and their perceptions of the service they actually receive.

Many studies on the TQM implementation and its effect on performance have been published, but the sample of companies targeted showed that manufacturing companies have been surveyed to a greater extent compared to service sector (Sila & Ebrahimpour, 2002). This may be because of TQM has its origin in manufacturing related organizations (Brah et al., 2000) as well as the assessment and measurement of quality management in services may seem more difficult because of the intangible nature of services (Parasuraman et al., 1985).

Juran (1979) classified the measurement of quality in a service organization along 2 dimensions: internal and external. Internal measurement is to measure the internal process, while external measurement is to measure the quality of products or services based on customer satisfaction. The main yardstick of performance in quality for service organizations is external customer satisfaction. According to Lee and Howard (1994), in providing preliminary feedback of an organization's quality improvement an internal climate survey could be utilized, which refers to employees' and managers' perceptions, about their organization and work units along several dimensions.

## The Framework

Based on the literature review, a research framework has been developed in order to study the linkages between TQM practices and service quality. The framework is adopted from Cook and Verma (2002), but for the purpose of this research, we eliminated the variable organizational performance. The framework is presented in Fig. 1.

Referring the framework, it was illustrated that the study investigates the relationship between the TQM practices and service quality. The TQM practices act as the independent variable, which is said to positively relate to the service quality as the dependent variable. This relationship was used to develop hypotheses for this study.

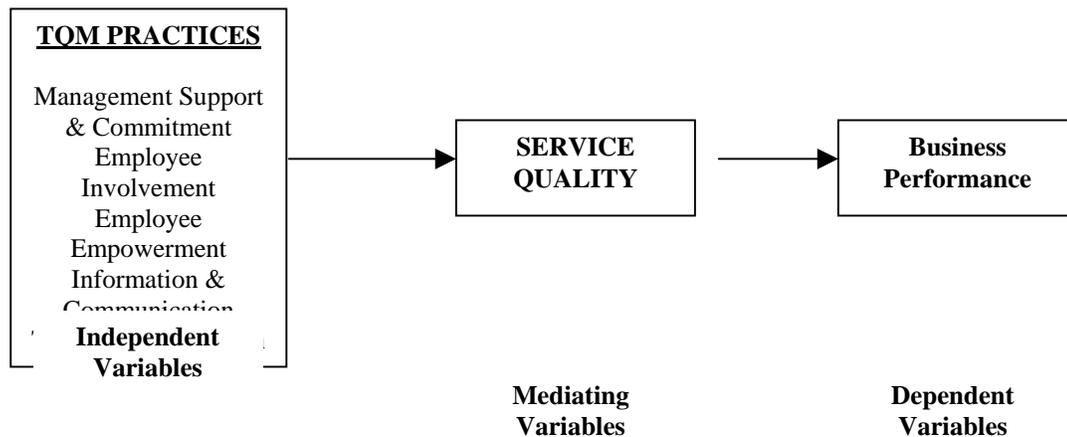


FIG. 1: SCHEMATIC DIAGRAM FOR THEORETICAL FRAMEWORK

As suggested by TQM gurus: Deming (1982), Juran (1988), Crosby (1979) and Ishikawa (1972), the crucial thing in TQM is to improve both products and service quality. Litton (2001) found that TQM processes improved quality and service. This is also agreed by Antony et al. (2002) in which they found that successful implementation of TQM will improve quality. Thus, the researcher hypothesized that:

H1: The level of TQM practices is positively related to service quality.

This main hypothesis leads us into specifying seven sub-hypotheses:

H1a	The level of management support and commitment is positively related to service quality.
H1b	The level of employee involvement is positively related to service quality.
H1c	The level of employee empowerment is positively related to service quality.
H1d	The level of information and communication is positively related to service quality.
H1e	The level of training and education is positively related to service quality.
H1f	The level of customer focus is positively related to service quality.
H1g	The level of continuous improvement is positively related to service quality.

Literature on service quality indicated that better service quality gives better organizational performance. Further, a large number of studies have found that better products and service quality have a relationship with organizational performance. For that reason, the researcher hypothesized that:

H2: Service quality mediates the relationship between TQM practices and organizational performance.

Also, the researcher expanded it into seven sub-hypotheses, which are:

H2a	Service quality mediates the relationship between management support and commitment and organizational performance.
H2b	Service quality mediates the relationship between employee involvement and organizational performance.
H2c	Service quality mediates the relationship between employee empowerment and organizational performance.
H2d	Service quality mediates the relationship between information and communication and organizational performance.
H2e	Service quality mediates the relationship between training and education and organizational performance.
H2f	Service quality mediates the relationship between customer focus and organizational performance.
H2g	Service quality mediates the relationship between continuous improvement and organizational performance.

## Research Methodology

The population of this study includes the service organizations in northern region of Malaysia (Kedah, Perak, Penang, and Perlis States) that do practices TQM in their operations. Banking industry, finance companies, insurance companies, private and public utility service organizations, higher learning organizations, consulting service companies and other related service organizations were purposively chosen in this study.

In order to purposively select the service organizations to be the sample in this study, the researcher has reviewed the yellow pages directories to find out the service organizations that practice particularly the seven practices of TQM listed in this study (management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus, and continuous improvement) to be chosen to participate in answering the questionnaire.

Primary data was used by distributing questionnaires to the respondents. For this study, 200 service organizations have been contacted and only 175 of them do practice TQM in their business routine. Questionnaires were sent by post and e-mail directly to the manager of each selected service organizations. The researcher keep on contacted the respondents through e-mail and phone asking for their responses after the questionnaire has been distributed to them. A total of 175 sets of questionnaires were distributed to the respondents and 57.71% of it, which is 101, were responded.

This study used the judgement or purposive sampling method in collecting data in which questionnaires were distributed to the managers of service organizations in the northern region that practice TQM. This judgement or purposive sampling method was used since it is justified to fulfill the objectives of this study. In determining the linkages between TQM practices, service quality, market orientation and their impact on organizational performance in service organizations, the researcher need to get the data from service organizations that practice TQM in their operations. Therefore, among various sampling method we have, judgement or purposive sampling was used in this study.

Data and information gathered were treated using the Statistical Package for the Social Science (SPSS) software Version 11.0. The data was analyzed using various methods: Cronbach's alpha, which is a reliability coefficient that indicates how well the items in a set are positively correlated to one another, used to measure the goodness of data. It ranges from 0 to 1 with values of .60 to .70 deemed the lower limit of acceptability (Hair, Anderson, Thatam, & Black, 1998). Generally in most studies the agreed lower limit cronbach's alpha is .70. For this study, we chose .60 as the lower limit of acceptability.

Furthermore, in order to examine how much is the variables affect each other, the researcher used the Regression analysis. Descriptive statistics like frequencies, mean and standard deviation were used to analyze the demographic information of the organization.

## **Measurement**

The TQM practices construct tries to measure the level of TQM practices in the organization. The 33 questions being asked were modified from Sureshchandar et al. (2002), Antony et al. (2002) and Brah et al. (2000) in which respondents were asked to respond to the statement using 5-point Likert scale ranging from strongly disagree, which is weighted as 1, to strongly agree, weighted as 5.

Service quality constructs attempts to capture the respondents' perceived service quality in their organization. It was divided into two categories: functional quality, and technical quality. Basically all the 12 questions in this section are modified from Gronroos (1983) which is adopted from Lassar et al. (2000). Respondents were asked to respond to the statement using 5-point Likert scale ranging from 1 for very low to 5 for very high for each statement.

Under the demographic information, it is wanted to gain some background information on the organization as well as the profile of the respondents themselves. Among questions being asked are: respondent's position in the organization, their age, gender, education level, type, nature, and size of the service organization, certification of ISO 9000 and number of years TQM being implemented in the organization.

## **Results**

### **Demographic Information**

Table 1 presents the demographic information of the organization including nature, type, size, ISO certification and number of years TQM being implemented in the service organizations.

In terms of nature of service organization, 47.5% were from others category of service organization such as public service department, government authority, government agencies, healthcare industry and hotels. Meanwhile, 11.9% comes from higher learning organizations, 9.9% from consulting service companies, 8.9% from banking industry, 7.9% from financing companies, 7.9% from insurance companies, and only 5.9% out of 101 organizations comes from utility service companies. From all service organizations that have participated, 61.4% comes from private sector and the remaining 38.6% comes from public sector. 58.4% are the small size organizations that have below 500 employees, 6.9% are medium size organizations with the range of 501 to 1000 employees, and 34.7% of them are the large size organizations with more than 1000 employees. Only 50.5% of 101 service organizations involved have received the ISO 9000 (or similar) certification. The mean average of number of years TQM being implemented was 4.83 years with a standard deviation of 2.84 years.

TABLE 1: ORGANIZATION'S DEMOGRAPHIC INFORMATION

Type	Category	Frequency	Percentage (%)
Nature of service	Banking industry	9	8.9
	Financing company	8	7.9
	Insurance company	8	7.9
	Utility Service company	6	5.9
	Consulting Service company	10	9.9
	Higher learning organization	12	11.9
	Others	48	47.5
	Total	101	100
Type	Public Sector	39	38.6
	Private Sector	62	61.4
	Total	101	100
Size	Small	59	58.4
	Medium	7	6.9
	Large	35	34.7
	Total	101	100
ISO 9000 (or similar) certification	Yes	51	50.5
	No	50	49.5
	Total	101	100

## Hypotheses Testing

H1: The level of TQM practices is positively related to service quality.

In this model, regression analysis on TQM practices and service quality was performed in which service quality acts as the dependent variable and TQM practices with the 7 elements: management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus and continuous improvement, as the independent variable.

From the result as shown on Table 2, R Square is 0.616, which means 61.6% of the variance in service quality can be predicted from management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus and continuous improvement. The suggested model is fit with 61.6%.

Table 2 revealed that only information and communication ( $\beta=0.374$ ,  $p<0.01$ ), customer focus ( $\beta=0.299$ ,  $p<0.05$ ), continuous improvement ( $\beta=0.255$ ,  $p<0.05$ ), and employee empowerment ( $\beta=0.152$ ,  $p<0.05$ ), had a significant and positive effect on service quality. This provided evidence to support H1c, H1d, H1f and H1g. Based on the  $\beta$  values, information and communication has the highest impact on service quality followed by customer focus, continuous improvement and subsequently employee empowerment.

TABLE 2: REGRESSION RESULTS BETWEEN TQM PRACTICES AND SERVICE QUALITY

Independent Variable	Std Beta
Management support and commitment	0.017
Employee involvement	-0.094
Employee empowerment	0.152*
Information and communication	0.374**
Training and education	-0.132
Customer focus	0.299*
Continuous improvement	0.255*
R <sup>2</sup>	0.616
Adjusted R <sup>2</sup>	0.587
F value	21.294
Durbin-Watson	2.231

\*\*p<0.01  
\*p<0.05

**Testing for Mediation**

In this study, service quality implies a causal hypothesis whereby an independent variable (TQM practices) causes a mediator, which causes a dependent variable (organizational performance). The researcher used the Baron and Kenny (1986) procedures to test the effects of mediation. Figure 2 depicts the test for mediation.

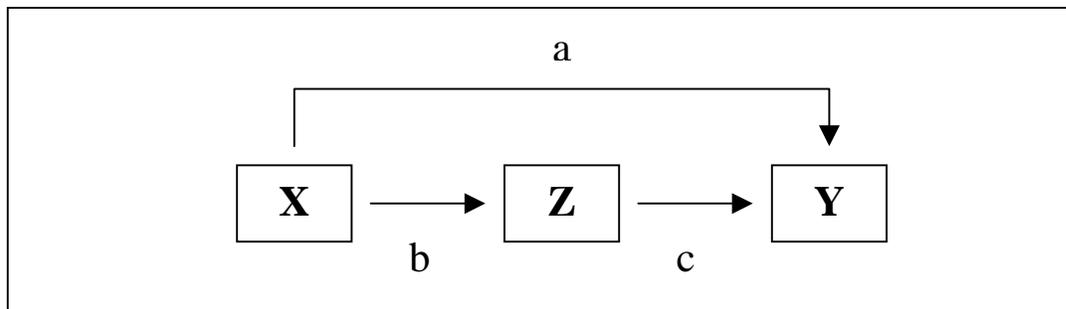


FIG. 2: TEST FOR MEDIATION

Baron and Kenny (1986) proposed the 4-step approach in which several regression analyses are conducted. Further, at each step, the significance of the coefficients is examined. The test should follow this procedure (Newsom, 2001):

- Step 1: Regress the dependent variable (Y) on the independent variable (X) to establish that there is an effect that may be mediated.
- Step 2: Regress the mediator (M) on the independent variable (X), which involves treating mediator as if it were an outcome variable.
- Step 3: Regress the dependent variable (Y) on the mediator (M) to test the significance of path b, and finally,
- Step 4: Regress the dependent variable (Y) on both the independent variable (X) and mediating variable (M).

According to Baron and Kenny (1986), mediation is supported if the partial direct effect for path a, is non-significantly different from zero, results are consistent with a full mediation model. If path b is significant after controlling for the direct effect of X (path c), but path c is still significant, the model is consistent with partial mediation.

It is hypothesized that service quality mediates the relationship between TQM practices and organizational performance. This hypothesis was sub-hypothesized into seven according to seven elements in TQM practices.

To test for mediation effect, first of all the dependent variable (organizational performance) was regressed on independent variable (TQM practices). The result shows that only management support and commitment

( $\beta=0.271$ ,  $p<0.05$ ) had a significant effect on organizational performance. Secondly, the mediator (service quality) was regressed on independent variable (TQM practices). The result shows that only four variables had significant effect on service quality. They are information and communication ( $\beta=0.374$ ,  $p<0.01$ ), customer focus ( $\beta=0.299$ ,  $p<0.05$ ), continuous improvement ( $\beta=0.255$ ,  $p<0.05$ ), and employee empowerment ( $\beta=0.152$ ,  $p<0.05$ ).

Further, the dependent variable (organizational performance) was regressed on service quality and market orientation as the mediator. Both service quality ( $\beta=0.489$ ,  $p<0.01$ ) and market orientation ( $\beta=0.278$ ,  $p<0.01$ ) were significant. However, since the significant variables that effect organizational performance are not common with the significant variables that effect service quality, therefore we cannot proceed with Step 4 to establish that service quality mediates the relationship between TQM practices and organizational performance. Therefore, there is enough evidence to reject the hypothesized relationship. Hence, it is established that service quality did not mediate the relationship between TQM practices and organizational performance. Table 3 shows the results of regression analysis.

TABLE 3: RESULTS OF REGRESSION ANALYSIS

Tests	Regression Model	
Test 1	The dependent variable (organizational performance) was regressed on the independent variable (TQM practices). R Square Adjusted R Square F  Independent Variable: <i>Management support and commitment</i>	.422 .379 9.703    $\beta=0.271$ , $t=2.147^*$
Test 2	The mediator (service quality) was regressed on independent variable (TQM practices). R Square Adjusted R Square F  Independent Variable: <i>Employee empowerment</i> <i>Information and communication</i> <i>Customer focus</i> <i>Continuous improvement</i>	.616 .587 21.294   $\beta=0.152$ , $t=1.992^*$ $\beta=0.374$ , $t=3.180^{**}$ $\beta=0.299$ , $t=2.565^*$ $\beta=0.255$ , $t=2.182^*$
Test 3	The dependent variable (organizational performance) was regressed on mediating variable (service quality).  R Square Adjusted R Square F  Independent Variable: <i>Service quality</i>	  .514 .504 51.870   $\beta=0.489$ , $t=4.781^{**}$

\*\* $p<0.01$

\* $p<0.05$

## Discussion

### The Relationship between TQM Practices and Service Quality

Results from regression analysis shows that only four out of seven variables under TQM practices have a significant and positive effect on service quality: information and communication, customer focus, continuous improvement, and employee empowerment.

Information and communication ( $\beta=0.374$ ,  $p<0.01$ ) has a greatest impact on service quality. This may be because of to maintain the focus on customers' needs and keep track of service quality performance, a quality information and communication like reporting system is required. For customer focus ( $\beta=0.299$ ,  $p<0.05$ ), it was significant with service quality because it is important in serving better quality of service. This supports the argument by Patel (1995). So do the continuous improvement ( $\beta=0.255$ ,  $p<0.05$ ) in which it always refer to better quality both in service and manufacturing industry. Thus, it has a great impact on service quality. In terms of employee empowerment ( $\beta=0.152$ ,  $p<0.05$ ), it has been indicated by literature that it has a favorable effect on service quality. This supports the argument by Gerals and Terziovski (2003) as well as study made by Litton (2001) and Gilbert and Parhizgari (2000) in which they found that effective TQM practices improve quality and service.

From seven practices, employee involvement and training and education give a negative relationship with the service quality. The measurement for employee involvement refers to teamwork, too much focus on team make the individuals less responsive to their job because they always depend on the team. This could lead to low performance, which in turn lead to low service quality. For the training and education, this happened because of the measurement used to measure the level of training and education practice in the service organizations are more focus on the skills but not on the delivery of service itself.

### Summary of the Results

From all seven hypotheses that have been developed, only four of them were accepted since three of them have enough evidence to be rejected. This study focused on various service organizations' nature. Various kinds of service operational settings tend to be different in terms of their implementation of TQM practices. This might affect the results of this study. The result could be different in which more hypotheses could be accepted if we concentrate only on one nature of service such as banking industry, financing companies, and insurance companies.

It can be concluded that in some cases TQM fails to deliver better service quality. This is parallel with what has been found by Shin, Kalinowski, and El-Enein (1998) in the literature that TQM gives high failure rates of 60% - 67%. This has made many organizations believe that TQM has not been delivering on its promises.

In the study developed by Cook and Verma (2002), the proposed relationship between quality management, service quality and organization's performance seem to hold true for a large service organization operating in turbulent business environment. Despite in this study, the major organizations involved come from the small size service organizations (58.4%). Therefore the results were different.

## Conclusion and Implications of the Study

This study explores the relationship between TQM practices and service quality using seven variables under TQM practices. Only some of TQM practices have significant effect on service quality.

TQM is not easy to implement in which it demands a full commitment from various parties in the organization and requires some changes and restructures that involve time consuming. However, in this study, the mean average of number of years TQM being implemented was only 4.83 years. This may be one of the reasons why the implementation of TQM does not much deliver positive results in this study. According to Chin and Pun (2002), TQM stresses the mutual cooperation of everyone in an organization and associated business processes to produce services that meet the needs and expectations of customers.

Also, quality is generally corporate-driven. Sometimes quality is sacrificed in meeting the bottom line output or immediate customer requirements. In some circumstances, organizations will never sacrifice quality. All these are very much dependent on the management style and organizational culture.

The sample size of this study was relatively small in which it focused on service organizations in the northern region only. Consequently, the results might not generalize to overall service organizations in Malaysia.

This study also faced the self-reporting bias, which is a common problem since it involves collecting data from managers about their organizations. This cannot be avoided because it is difficult to recognize respondents with knowledge about the TQM practices and their organizational performance.

Apart from that this study focused only on seven TQM practices whereas there are lot more practices that can be included.

It is suggested that a wider sample can be used for any future study, which can be generalized to the service industry. The same study can be conducted with a bigger sample.

The self-reporting bias perhaps can be reduced with multiple responses from different individuals and management levels.

## **References**

Contact the Author for a list of references

# **The Role of Relationships Management in Anglo-Sino Partnerships Are We Speaking the Same Language?**

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## **Abstract**

The dynamic economy of China, its low cost manufacturing capability and the strategic significance of Hong Kong as the gateway to China has resulted in a proliferation of inter-organisational relationships between Western and Chinese businesses. These relationships take a variety of forms, all dependent on the interaction between individuals and groups to achieve the declared strategic objectives. This paper examines the nature of relationships formed by UK and Chinese partners. Using focus groups in China and UK it explores both parties' understanding of relationships and the characteristics for success. The paper considers the concept of *guanxi* and compares its complex system of favour and obligation with the traditional transaction-based, highly regulated relationships of Western cultures. The paper concludes that attitudes to relationships are both culturally derived and "learned" from experience of personal and work relationships and suggests ways in which UK and Chinese partners can minimise risk and achieve mutual understanding.

## **Background**

The liberalisation of the Chinese economy since 1979 and in particular China's accession to the World Trade Organisation in 2001 has resulted in a proliferation of inter-organisational relationships between Western and Chinese businesses. At their simplest these may be supply-chain relationships established between buyers and suppliers, ranging through various degrees of partnership and collaboration to complex strategic alliances and joint ventures. All will be dependent on the interaction between individuals and groups to achieve the declared strategic objectives i.e.: success is dependent on the degree to which the inter and intra organisational relationships can be successfully managed. How then can this be achieved?

This paper represents the second phase of a three stage study into Anglo-Chinese Partnerships in Higher Education. The first phase [15] studied the extent to which strategic congruence exists between partners and the implications for the development of successful relationships. The first study highlighted the fundamentally differing understanding of the nature and characteristics of "relationships" between Chinese and Western cultures. This paper therefore attempts to identify Chinese and UK perceptions of the essential dimensions of a relationship and seeks to understand how these culturally embedded differences can be reconciled in practice. The primary research for this paper was undertaken in UK and China using focus made up of people from all walks of life in an attempt to achieve broad cultural representation. The findings from this paper may therefore have wider application than the Higher Education sector and may be relevant to any Anglo-Sino business relationship.

## **Modern China and Hong Kong**

The economy of the post-Mao era in China continues to attract foreign direct investment from around the world. The People's Republic of China is now the world number one recipient of foreign direct investment (FDI), receiving 10% of the global total in 2003. This level of investment results in the creation of countless strategic alliances, joint ventures and acquisitions. The Pearl River Delta in Guangdong Province in the South East of the country produces 5% of the world's manufactured goods and with less than 1% of the land area and just 4% of the population is responsible for 8% of China's GDP, 38% of total trade and 29% of FDI. The region is home to more than 7,500 multi-national companies and tens of thousands of smaller enterprises, many of which are engaging in collaborations with UK companies.

Hong Kong has a long history of “collaboration” with Britain and was handed back to P.R.China in 1997. Hong Kong is described as a Special Administrative Region (SAR) of the People’s Republic Its position as a gateway to China has guaranteed its strategic significance since the days of the Silk Road when traders passed through en route to eastern destinations. It remains a gateway to this day – more than half of the world’s population is within five hours of Hong Kong – and following the implementation of the CEPA agreements liberalising trade between Hong Kong and China, exports through its port increased by 19% in 2004. Foreign investors are keen to take advantage of CEPA and Hong Kong has become the second largest recipient of inward investment in Asia.

The current growth in the economy of China and Hong Kong, access to a huge emerging market and access to a large pool of low cost labour has resulted in UK organisations developing collaborative arrangements with partners in Greater China. The Higher Education Sector in UK has also been quick to identify and exploit potential partnerships where demand for education significantly exceeds the local ability to supply, and where the British education system is held in high regard.

Anglo-Sino relationships are formed in a modern and dynamic economic environment, yet they exist within deeply embedded and very different cultural contexts. The success of these relationships will be dependent upon an organisation’s ability to understand and satisfy the expectations of both parties.

## **Attitudes to Collaboration**

In recent year the concept of social capital has received attention from academics in the social sciences, and Western practitioners seeking to lever benefits from personal and inter organisational relationships. As the concept has been embraced by several disciplines, so various definitions of social capital have emerged. For the purposes of this study the definition adopted by Hitt Lee & Yucel [10] has been adopted, which is “the relationships between individuals and organisations that facilitate action and thereby create value. The web of social relationships that develops entails norms, values and obligations for members”. This interest in social capital is in contrast to the traditional transaction-based business dealings which have prevailed in Europe and North America, where reliance on orders and contracts implemented by regulation and legislation are the norm. The advantages of developing social capital through networking is now seen as sufficiently important to be engineered, particularly in the SME sector, and a proliferation of business clubs, trade associations and networking initiatives have been established throughout the UK.

The development of social capital is seen as an iterative process which is “by its nature dependent upon history. In other words, the current relations of a firm are products of its prior relational activities as well as the basis upon which it establishes future social relations” [3]. The real benefits of the development of social capital vary considerably according to the nature of the collaboration, but research suggests that social capital can

- Develop trust and create norms and sanctions which reduce transaction costs [5]
- Improve access to resources within the network group [6]
- Shift the perceptions of individuals within a network, making them more willing to pool resources and create synergies [6]

However, Falk and Kilpatrick also caution that the development of social capital does not necessarily result in the realisation of potential, and that the quality and quantity of positive interactions are vital to the realisation of synergies. Hitt, Ahlstrom, Dacin and Levitas (2001a) [11] observe that Western firms tend not to be sensitive to their partners needs in collaboration and therefore may not be capable of choosing the best possible partners.

Despite this move towards notions of sharing and reciprocity, Western managers still find the Chinese concept of guanxi difficult to embrace, often believing it to be related to unethical practice [1]. In their article “Is guanxi ethical? A normative analysis of doing business in China” Thomas Dunfee and Danielle Warren (2001) [4] ask the question “Should (Western) corporations use guanxi? In this study they found that 63% of European firms doing business in China considered guanxi to be a personal asset rather than a corporate asset in that if the person leaves the organisation, the guanxi is lost. They conclude that guanxi involves a variety of practices which might be used to achieve a variety of objectives in widely differing contexts and whilst they concede that some may have

positive outcomes, they suggest that corporations should avoid forms of guanxi which are contrary to emerging business norms or which might disadvantage ordinary Chinese people.

Guanxi has been part of Chinese culture and business for centuries and has its origins in Confucianism, a social philosophy seeking to establish harmony in a complex human society. It is deeply embedded in family, work and business and taken as a “given” in everyday life. Chinese people cultivate guanxi in a variety of subtle and imaginative ways and its existence governs their attitudes to relationships. Chinese firms use guanxi to “manage organisational interdependence and to mitigate institutional disadvantages, structural weaknesses and other environmental threats” [13] For the purpose of this study guanxi will be defined as “a special type of relationship which contains trust, favour, dependence and adaptation [17]. However it is impossible to understand guanxi without understanding “Mianzi” i.e.: the importance of “face” particularly the avoidance of “loss of face” which is traditionally compared to physical mutilation, and “Renqing”, the notional of obligation and reciprocity which is at the heart of guanxi. Not to honour “Renqing” causes loss of face, offends partners and damages the guanxi network [13]. Guanxi is therefore based on an exchange of favours and is not formed from an emotional attachment. Fan (2002) [7] suggests that “guanxi” and “relationship” should not be confused, for while a relationship may exist, guanxi will only happen when something needs to be done.

Attitudes to collaboration and partnership between UK and China are clearly based on different notions of social capital. These differences are highlighted in their respective measures of success. A British executive’s success might be measured by the accumulation of personal wealth, whereas a Chinese executive might be measured on the strength of his/her connections (guanxi) [2].

The problem is therefore that whilst both UK and Chinese partners in a relationship may earnestly want the relationship to succeed, their deeply embedded understanding and expectations may be considerably at odds. This paper seeks to explore the understanding and expectations to mitigate the negative effect they may have on collaboration.

## Research Methodology

From the initial study in this series [15] it appeared that the Chinese and UK partners in the set of relationships under investigation had quite different expectations of the relationship. More significantly, their expectations were not associated with the strategic objectives of the partnership but more concerned with the interaction between individuals within the relationship. The second phase would therefore need to analyse the differences in attitudes at a micro-level.

The methodology developed from significant conversations with UK and Chinese academics, which centred on the extent to which an individual’s attitudes to relationships were culturally derived or “learned” from personal life experiences of relationships e.g.: with parents, siblings, friends etc. These conversations revealed key differences in the language used to describe critical incidents. UK colleagues tended to relate incidents of partnership failure, a breakdown in communication, a betrayal of trust. Chinese colleagues tended to relate the mutual advantage arising from the obligation and reciprocity associated with guanxi. It appeared that the words used to define and explain relationships were critical to an appreciation of the cultural and personal factors affecting the management of relationships and thus the methodology emerged.

Initially two pilot focus groups were arranged, one for UK participants and one for Chinese participants. Both groups were made up of six members from a variety of work and social backgrounds. The groups were asked to come up with a list of twelve to fifteen words which they associated with “relationships” in a generic sense. They were then asked to shortlist six to eight of the words, then to prioritise the words according to the following relationship categories

- Personal Relationships: Relationships with parents, siblings, spouse, close friends
- Work Relationships: Relationships with work colleagues, superiors, subordinates within the same organisations
- Business Relationships: Relationships which are inter-organisational i.e.: between buyers and suppliers, partners in collaboration etc

These categories are based on a comparison of three types of guanxi by Ying Fan (2002) [7]. In this case the term “Work Relationships” has been substituted for Fan’s “Helper” category, as the meanings are very similar i.e.: colleague, associate and the term “Work Relationships” would be more easily understood by the participants. Table 1 illustrates Fan’s comparisons of the three types of guanxi

TABLE 1: A COMPARISON OF THREE TYPES OF GUANXI

<b>Guanxi Type</b>	<b>Personal</b>	<b>Work</b>	<b>Business</b>
Definition	Special relationship, the expressive tie	Process of exchange, favours	Process of finding business solutions through business connections
Nature	Emotional and instrumental	Instrumental, utilitarian	Purely utilitarian
Cultural / Social Root	Chinese cultural values	Cultural values and contemporary socio-economic factors	Current political / economic structures
Exchange	Love, affection, support	Favour	“Money and power” deal
Ethic	General ethical, even desirable	Depends	Widely regarded as evil and unacceptable
Time	Long term or permanent	Temporary or long term	Varies

Source: Adapted by the author from Fan (2002)

The use of word association without reference to any specific incident examples allowed participants to associate more freely and to offer their own examples which enriched the results. The groups were facilitated by the author and a Chinese speaking colleague to ensure that the subtlety of meaning was recorded. After minor revisions to the format, a further eight focus groups were held in Newport and a further eight groups were held in China (Haikou, Shanghai and Hong Kong). In each case it was deemed important to record key elements of the discussions leading to the selection and prioritisation of words. As “language” was fundamental to the exercise, all participants were allowed to use their first language. The group discussions were recorded and translated by one Chinese colleague with a specific interest in networking and social capital. All groups consisted of between five and seven people, selected from part time post graduate student groups to give broad gender balance and a range of ages between twenty five and fifty five. In total one hundred and nine people participated in the study. The pilot studies were undertaken in October 2003. The other groups took place between May 2004 and January 2005.

Initially the intention was to map the results of the focus groups against Mandell’s five characteristics for relationships in collaboration [12]. These are:

- Commitment of members.
- Perceptions and values of members
- Imposition of rules and regulations
- Relative power of members
- Impact of political and cultural context

However this proved to be of limited value, therefore the results have also been analysed by relationship type to identify the extent to which evidence supports the contention that attitudes are culturally derived (by nationality) or learned from personal and / or work experiences.

## Findings

### General Comparisons UK / Chinese

It was interesting to note that from the pilot study that the Chinese group found the tasks easy to understand and complete, while the UK group seemed to look for a “catch” or a non-existent complication. This trend continued in most of the focus groups. However, the UK groups discussed the responses for longer with more debate. Most Chinese groups had broad agreement on the list but debated priorities. From the total data collected it was possible to make some general comparisons between the groups. Table 1 illustrates these comparisons.

TABLE 2: GROUP COMPARISON – OVERALL DATA

	UK Focus Groups	Chinese Focus Groups
Total number of words identified by the groups	90	75
Percentage of words unique to each national set	65%	55%
Words related to Mandell’s Five Characteristics		
• Commitment of members	24%	35%
• Perceptions and values of members	34%	41%
• Imposition of rules and regulations	20%	3%
• Relative power of members	9%	16%
• Political and cultural contexts	12%	6%
Incidence of negative words	13	4
Percentage of negative words	14.4%	5.3%
Negative words	Abuse Anger Betrayal, Confrontation, Disappointment Distrust Enemy Envy Fear Frustration Hard (difficult) Intimidation Volatile	Complicated Cruelty Hate Jealousy

Source: Author

The UK focus groups identified a total of 90 words, the Chinese group identified 75. This confirms that there was more commonality among the Chinese than the UK groups. The number of unique words in each list indicates the extent of the difference between the sets. Unique words in the UK list included Assertiveness, Boundaries, Enjoyment, Suspicion and Vision. Unique words in the Chinese list included Beliefs, Ethics, Honour, Leadership and Reputation.

The UK set listed thirteen negative words within the overall list. However, when discussing words like trust, the discussion tended to focus on negative aspects e.g.: relating incidents of betrayal of trust or absence of trust, when discussing honesty the groups would frequently refer to dishonesty and relate incidents of dishonesty in work or business relationships. The Chinese set included four negative words, including “complicated” which has been identified as “negative” because the group discussed at some length the problems of relationships “complicated” by contract, rules and regulations.

The imposition of rules and regulations was of much more importance to the UK group (20%) than the Chinese group (3%). This is consistent with the traditional Western reliance on regulation and legislation. The UK set were more concerned with the relative power of the members than the Chinese set, which could be attributed to differing views of “power” – for UK legitimised by position / hierarchy, for the Chinese vested in the strength of guanxi [2].

#### Analysis by Relationship Type

Table 3 below summarises the responses of the UK set in relation to Personal Relationships. Direct quotes from focus group participants appear in italics.

TABLE 3: PERSONAL RELATIONSHIPS – UK SET

Group	Ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Trust	Commitment	Honesty
2	Trust	Respect	Loyalty
3	Trust	Honesty	Loyalty
4	Trust	Respect	Communication
5	Trust	Respect	Communication
6	Honesty	Friendship	Collaboration
7	Trust	Honesty	Respect
8	Trust	Respect	Communication
UKPilot	Integrity	Sustainability	Compatibility

Source: Author

The results show the extent to which trust dominated the attitudes to personal relationships – the UK pilot group had decided that the word “Integrity” covered trust and honesty. The group discussions repeatedly raised issues of betrayal of trust and / or distrust. The groups felt that trust needed to be established at the beginning of a relationship - *“Do you have an instinctive rapport – I know I can trust this person. Therefore we can be compatible.”* All discussions focused on “Can I trust this person?” and not “Can this person trust me?” There was no assumption trust and honesty exists between family members and close friends. Most of the words were about “regulating” the relationship – trust, respect, loyalty.

Table 4 below summarises the responses of the Chinese set. Chinese people are not normally outwardly affection nor do they talk openly about personal feelings, but there was no reluctance to express their view through words and it was surprising to see the dominance of “love” in this set together with words like caring and friendship, which might be regarded as “given” by the UK set. Trust was not discussed to any great extent and could be assumed as part of the obligation of personal / family guanxi –

*“Guanxi is also relationship within the family. Guanxi is a resource as well as a responsibility – legal responsibility, defined by law, wife and children. Whoever has made achievements; these will contribute to family honour shared by everyone”.*

This demonstrates the very serious nature of guanxi, even in the informal setting of the family. The appearance of the word forgiveness suggests a degree of tolerance. The word “forgiveness” was unique to the Chinese list. The majority of the words suggest mutuality and the discussions were around both sides of a partnership, so the words chosen had to exist on both sides.

TABLE 4: PERSONAL RELATIONSHIPS – CHINESE SET

Group	Ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Reliability	Honesty	Respect
2	Love	Help (one another)	Forgiveness
3	Respect	Friendship	Trust
4	Trust	Love	Understanding
5	Love	Forgiveness	Commitment
6	Love	Concern	Forgiveness
7	Trust	Caring	Respect
8	Love	Respect	Consideration
CPilot	Guanxi	Trust	Understanding

Source: Author

Table 5 below summarises the UK set’s priorities in work relationships.

**TABLE 5: WORK RELATIONSHIPS – UK SET**

Group	Ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Cooperation	Commitment	Communication
2	Attitude	Understanding	Respect
3	Communication	Expectation	Trust
4	Communication	Responsibility	Trust
5	Communication	Partnership	Compromise
6	Collaboration	Synergy	Honesty
7	Communication	Respect	Professionalism
8	Trust	Communication	Empathy
UKPilot	Integrity	Partnership	Sustainability

Source: Author

These findings suggest that communication between colleagues is the key to successful relationships for the UK set. Commitment, collaboration and compromise all feature in the list and suggest that mutuality is more to the fore. Certainly the discussions were more “two-sided” – considering both sides of the relationship. Trust was seen of much less importance than in personal relationships. The words here suggest a will to “get on” to achieve objectives. The Chinese set offered more mixed responses as summarised in Table 6 below.

Here trust and mutual trust are given priority in working relationships, but not with the same understanding of trust as expressed by the UK set (see above) –

*“Trust is based on knowing and understanding the person”*

*“I may understand someone, but I don’t trust them. I may still do business with them, but I take care”.*

*“Working relationship doesn’t involve trust. Individual responsibility is what can do the job. You are responsible for what you do, so is he / she. Trust is not involved here”*

*“Trust in work relationships is ambiguous. In Chinese trust is a heavy word, and involves more than just knowing, understanding and familiarity. Years of experience of contact and doing things together, also kinship relationships can contribute to trust”*

Help, support and encouragement suggest a spirit of collegiality, which relates to mianzi, the concept of face. It would be considered serious to lose face with colleagues.

**TABLE 6: WORKING RELATIONSHIPS – CHINESE SET**

Group	Ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Respect	Concern	Encourage(ment)
2	Trust	Help (one another)	Honesty
3	Trust	Help (one another)	Interests (in common)
4	Honesty	Understanding	Patience
5	Trust	Team Spirit	Commitment
6	Trust	Communication	Loyalty
7	Communication	Understanding	Supportive
8	Integrity	Mutual Trust	Open Minded
CPilot	Understanding	Tolerance	Responsibility

Source: Author

The UK set’s responses regarding business relationships are summarised in Table 7 below.

TABLE 7: BUSINESS RELATIONSHIPS – UK SET

Group	Ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Honesty	Respect	Communication
2	Trust	Compatibility	Attitude
3	Communication	Expectation	Respect
4	Communication	Trust	Responsibility
5	Communication	Vision	Partnership
6	Collaboration	Familiarity	Honesty
7	Professionalism	Communication	Respect
8	Communication	Negotiation	Cooperation
UKPilot	Integrity	Personal Link	Sustainability

Source: Author

Once again communication features significantly in the priorities of the UK set. Trust appears in only one. From the discussions within groups this would appear to be because trust is not expected. Trust did not feature largely in the group discussions. Apart from the importance of communication, there was no real correlation between the nine groups. In discussion the groups were uncertain how to manage business relationships and struggled to find any real significance –

*“Power is not important. You may not have any power”*

*“Personality, partnership, sustainability, they are all linked”*

*“Integrity has a positive effect on perceptions of compatibility”*

*“How do you assess integrity within a person, a close relationship?”*

Most of the words chosen suggest a desire to regularise or formalise the relationship – Respect, Negotiation, and Partnership. In the absence of any evidence of generalisation, it is assumed that each collaboration is taken on its own merits and the relationship developed without any iteration.

The Chinese set of responses summarised in Table 8 below reveals far more agreement and understanding across all groups in the set.

TABLE 8: BUSINESS RELATIONSHIPS – CHINESE SET

Group	Ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Win-Win	Competitive	Honesty
2	Cooperation	Forgiveness	Honesty
3	Equality	Communication	Friendship
4	Trust	Confidence	Honesty
5	Loyalty	Ethics	Win-Win
6	Trust	Communication	Ethics
7	Beneficial	Trust	Respect
8	Honesty	Equality	Support
CP	Reputation	Trust	Guanxi

Source: Author

The range of words all resonate with the mutuality – the reciprocity and obligation that it synonymous with guanxi – Win-Win, Equality, Forgiveness, Friendship, Support exemplify the common understanding of relationships for mutual benefit. It is interesting that “ethics” appears three times, however this is ethics as defined in guanxi, which is to deliver on the obligations and expectations, to do otherwise would result in loss of face. The comments from the groups provide interesting insights

*“Trust based on how well you know the other person. This is vital in business relationships – how familiar you are with each other; otherwise it will just be one way trust.”*

*“I don’t trust a company simply because it has reputation. Reputation itself is not enough for trust”*

*“Mutuality, balance, win-win. Relationships should not be for one side, both sides are satisfied – like bosses and employees – satisfaction in all aspects”*

In contrast to the UK set, the words here do not seek to regularise or formalise the relationship, but instead reinforce the desire for harmony, balance and mutual benefit.

## **Discussion and Conclusions**

### **Are Attitudes to Relationships Culturally Driven?**

Western attitudes to business relationships have traditionally been based on transactions, regulated by legislation and regulation. Business has been driven by the desire for profit and wealth accumulation. Neither individuals nor organisations explicitly espouse “British” cultural values in the way that Chinese understand and express their culture. The findings within the UK group indicate that the responses are not affected by a single pervasive culture. However, the Chinese responses clearly indicate an understanding of and commitment to the culturally derived principles of guanxi. The Chinese set responses to personal, work and business relationships are consistent with the guanxi types characterised in Fan [7] which suggests that where a clear culture exists it can drive attitudes to relationships.

### **Are Attitudes to Relationships “Learned” from Life Experience?**

The UK set indicated overwhelmingly that trust is essential to the success of personal relationships and that trust, together with honesty, loyalty and respect, cannot be assumed. It is possible that many of the participants have experienced breakdowns in family relationships through, separation, divorce and/or the breakdown of the extended family. Work experiences may have involved redundancy, uncertainty and poor corporate governance. In such circumstances it is quite possible that trust, loyalty and honesty would be seen as significant to successful relationships. The Chinese group emphasised the importance of love, caring and understanding. In China divorce is still relatively uncommon and re-marriage, even after the death of a partner is unusual. The bonds of extended family are still very strong, with families of three generations often living together for extended periods. Outward expressions of affection, even within families are very rare. Children defer to their parents well into adulthood. It is possible that these circumstances, coupled with an understanding of guanxi, may suggest that participants would want evidence of love, affection and understanding. In other words, there is an inverse relationship between life experience and attitudes to relationships – each wants what they have not got!

### **How can we Reconcile the Differences?**

The evidence suggests that the key differences in attitudes to business relationships between UK and Chinese partners are likely to be:

- The emphasis on mutuality and social capital on the Chinese side
- The emphasis on trust and communication on the UK side
- The existence of a complex and culturally specific shared code that is guanxi
- The UK need to have comprehensive and explicit communication between partners
- The negative attitude to relationships which prevails in the UK
- The risk of guanxi descending into unethical territory
- The risk of over-policing relationships resulting in loss of face and damage to the relationship

In order to overcome these differences Anglo-Sino partners will need to put measures in place pre and post the establishment of partnership. In the pre-agreement phase both partners should undertake a training programme which explains in detail the culturally derived attitudes on both sides. Many organisations enter into partnerships with no more preparation than a brief lesson on the etiquette associated with the exchange of business cards and the appropriate table manners in their respective countries. This simple measure would better prepare key personnel to enter into the partnership negotiations without infringing the limits of mianzi.

Before a partnership begins both sides should explicitly state their objectives and their capacity to deliver in order to instil trust and encourage open communication. Caution is required as Chinese are prone to exaggerate their abilities in an attempt to impress potential partners [16]. UK partners should use incentives rather than penalties in performance measurement as a further demonstration of trust.

Post agreement, parties should be encouraged to facilitate face-to-face meetings between key personnel in the partnership at an early stage. This builds personal relationships, which in turn leads to trust and respect, easing the way for future long-distance communication. Prusak and Cohen (2001) [14] suggest that “Relationships can only happen and trust can only flourish when people know each other...Social capital grows when team members meet face-to-face and work side-by-side”. Both parties should also make signal allocations of resources and create an identity for the partnership within their respective organisations. Significant milestones in the partnership should be identified and jointly celebrated, conferring status and appreciation for the efforts of all concerned. Someone in the UK partner organisation should be made responsible for managing the “relationship”, which should be regarded as a valuable asset requiring constant care and attention.

#### **Are we Speaking the Same Language?**

Trust and communication are central to Anglo-Sino partnerships, though the language used to define them varies considerably. The difference is not between English and Putonghua, but in the subtlety of understanding developed through culture and experience. Hart (1988 p.191) [9] refers to trust as “the negotiation of risk occasioned by the freedom of others” which appears akin to the UK understanding. However, Harris (2003) [8] describes Fukuyama’s notion of trust as “the expectation of regular, honest and cooperative behaviour based on commonly shared norms” which seems to reflect the Chinese understanding. The UK understanding of communication is explicit, written and / or verbal information shared through established channels and by accepted means. The Chinese understanding of communication is much broader, to include everything we do (and don’t do) and the way in which we do it. Every action is of significance – the order participants speak at a meeting, the seating arrangements, and the exchange of gifts – all these things say something about the value and status conferred on the relationship and are therefore a means of communication.

The term “cultural fluency” has entered into the general lexicon of management-speak. However, more work is to be done if we are to achieve fluency in the language of partnership and collaboration.

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# Understanding Management in South Korea: Utilising a Comparative Management Framework

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## Abstract

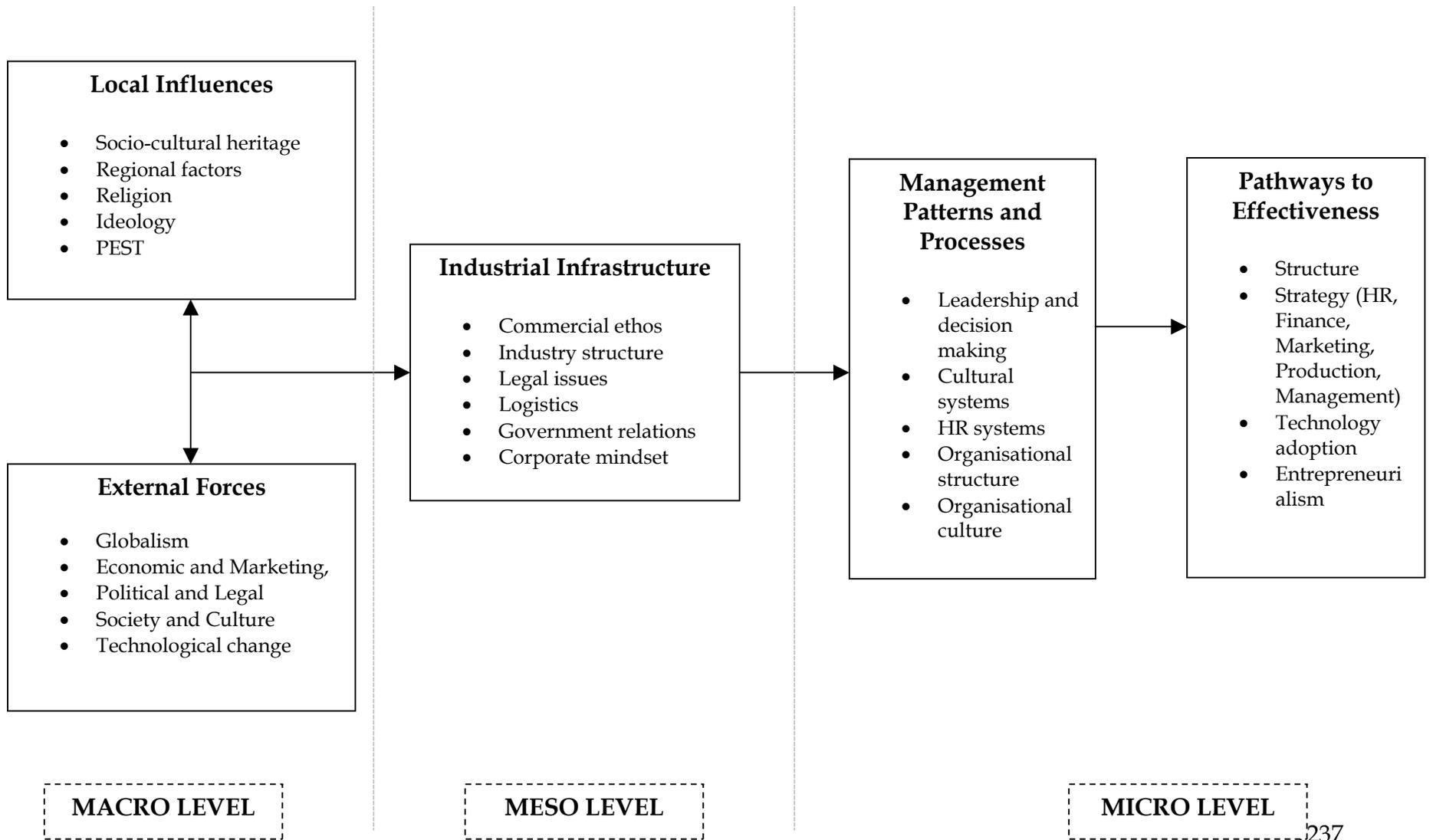
This paper introduces a comparative management framework as a means of better understanding the establishment Korean Management System. Whilst not specifically seeking to make comparisons with other management systems in this paper, the authors utilise a "Comparative Management Model for the Global Era" (Grainger, Nankervis and Chatterjee, 2005) to broadly describe the context and application of management systems in the industrial conglomerates, the Chaebol, which dominate the external and domestic economies of the Republic of Korea. After a very brief outline of the history and cultural origins of the Korean people, industrialization in the post Korean War era, the major elements of the modern industrial structure, the management approaches which prevail amongst the enormously powerful family dominated industrial conglomerates, the Chaebol, are discussed. The competitive strategies upon which the competitiveness of these industry groups is based are also outlined.

## Introduction

Understanding and providing advice in relation to management systems or components of management systems is really primary task for management scholars. And within this key mission, as economic activity globalizes, the need to understand and interpret different national management systems is really a priority. This paper provides a working application of a theoretically constructed comparative management model to a national management system - the management of the Korean Chaebols. The model utilized here was adapted from Chen's (1995) comparative management model, which was itself an extension of earlier work by Harbison and Myers (1959), Farmer and Richman (1965), Davis (1971), Neghandi and Prasad (1971). The current model operates at three distinct levels, macro, meso and micro. This device enables a useful re-interpretation of Chen's work by considering the global and local business environments (macro level), by highlighting national level industry features (meso level), and utilising this information as a background for considerations of particular approaches to management and managerial effectiveness (micro level). This approach was significantly inspired by the influential work of Bartlett and Ghoshal (1990), who have drawn our attention to the importance of considering the effectiveness of global corporations in local contexts, albeit that their principal focus has been on the business strategies of transnational corporations, and not specifically on management systems.



**COMPARATIVE MANAGEMENT MODEL FOR THE GLOBAL ERA (Grainger, Nankervis and Chatterjee 2005)**





The following sections utilise the re-interpreted model to describe the management systems of the key Chaebol groups in the Republic of Korea.

## **Macro Level: Local Influences and External Forces**

### *Republic of Korea - Country Profile*

Korea is the English version of *Koryo*, a kingdom established in the central Korean peninsula in AD 918. Korea has been subject to repeated Chinese invasions and intermittent Chinese occupations for centuries. And relatively recently, Japan annexed Korea as a colony in 1910 and following the defeat of Japan in the Pacific War in 1945, Korea's northern half fell under the influence of the USSR, while the southern half was a sphere of American influence. As the cold war between these two super powers developed, identification with radically different ideologies strengthened in the northern and southern halves of the country. In 1948, the south attained independence as the Republic of Korea while the Soviets simultaneously established the Communist Democratic People's Republic of Korea (DPRK) in the north. Two years later the DPRK attacked the Republic of Korea the first act in the devastating Korean War which lasted for three devastating years. United Nations forces led by the US eventually drove the DPRK out of the south and an armistice was signed, however the legacy has been an ongoing low level hostility between the two Korea's, with both sides maintaining large standing armies. Recent nuclear threats have from Pyongyang have retarded conciliation efforts towards the formation of a unified Korea.

In political terms, North Korea is a communist dictatorship with a dynastic, iconoclastic leadership. Politically isolated, it retains one of the world's last centrally planned economies, and currently faces desperate economic conditions - without aid from the developed world; millions of its citizens would certainly die from starvation. Much of the nation's industrial capital stock is beyond repair resulting from years of under investment and neglect. Industrial and power output has declined in parallel (CIA World Factbook 2005). In contrast, the Republic of Korea, commonly known as South Korea, has a powerful economy and is a major industrial and trading nation. As one of the Four Dragons of East Asia, South Korea has one of the fastest growing economies in the Asia Pacific region, with an average annual growth rate of more than eight percent over three decades. Just three decades ago, Gross Domestic Product (GDP) per capita was comparable with levels in the poorer countries of Africa and Asia. Even after the setback posed by the Asian Financial Crisis of 1997, its GDP per capita is sixteen times North Korea's, seven times India's, and is currently comparable to the smaller nations of the European Union (CIA World Factbook 2005).

### *National Culture: Religion and Ideology*

Although the precise origin of the Korean people are obscure, it is generally understood that Korea was first populated by migrants from the north-western and central parts of Asia, the Lake Baikal region, Mongolia, and the coastal areas of the Yellow Sea. Currently, South Korea has an estimated population of 48.5 million (CIA World Factbook, 2005) with a radically and linguistically homogenous population, with no sizeable indigenous minorities, except for some Chinese (approximately 20,000). However, the number of foreigners is steadily increasing with an influx of American soldiers associated with active US military support since the end of the Korean War, Chinese and other foreign national business immigrants, and thousands of workers from Southeast Asia attracted by the high rates of economic growth over the past three decades.

Korea's traditional religions are Buddhism and Shamanism, but the majority of the modern population are Christians (49 percent). Christian missionaries arrived in Korea as early as the 16th century, but it was not until the 19th century that they founded schools, hospital and other modern institutions throughout the country and Christianity has now become Korea's largest religion. Buddhism has lost influence over the years but is still practiced by 47 percent of the Korean population (CIA World Factbook, 2005). Shamanism – characterized by the worship of natural spirits, is still practised in certain pockets. The general influence of Korea's proximity to China, and the legacy of historical Chinese intervention in Korean affairs, means that Confucianism remains a dominant cultural influence. Since the Japanese occupation of 1910 - 1945, it has existed more as a living social philosophy, or a way of life, than as a separate philosophical or religious School. Chondogyo (Religion of the Heavenly Way) –

a native religion founded in the mid 19th century that fuses elements of Confucianism and Christianity is practised by a small percentage of the population.

In spite of invasion and occupation by China, Mongolia, Manchuria and Japan throughout its ancient and modern history, Koreans have succeeded in maintaining their distinctive identity, remaining one of the most ethnically homogenous countries in the world. All Koreans speak the distinctive Korean language which is classified as an Altaic language. It has affinities to Japanese language, contains many Chinese loanwords and written characters, and has a unique phonetic script, known as *Hangul*. With the intensification to globalization and the pervasive American influence, English is now widely taught in junior high and high schools.

#### *Economic Background*

The South Korean economy has undergone an extraordinarily rapid industrialization. In the aftermath of the Korean War, economic aid from the United States and Japan has been instrumental towards its economic development from one of the world's poorest nations to a contemporary industrial power. The country's GDP has expanded on average by more than nine percent annually since the mid-1960s when the military-dominated government established economic development as its primary goal and mobilized the nation's resources to achieve this goal (Chung, Lee and Jung 1997). A series of five-year economic plans began in 1962, concentrating on the development of export-oriented manufacturing fostered by strong government support in terms of sweeping economic, currency and financial reforms. During this growth era, economists branded South Korea as one of Asia's "Four Tigers", joining Singapore, Hong Kong and Taiwan, and in 1996 Korea gained membership of the OECD. By 1997, annual national budget figures showed revenues of US \$ 94.5 billion and expenditures of \$ 83 billion.

However, Korea was not immune to the rigours of the Asian Financial Crisis. In November 1997, Korea followed Thailand and Indonesia in suffering a loss of international investor confidence, resulting in a severe foreign exchange liquidity crisis. The Korean currency (the *won*) lost over fifty percent of its value against the US dollar by the end of 1997, and foreign currency reserves dropped to dangerously low levels. In December of the same year, Korea signed an enhanced US\$58 billion aid package, including loans from IMF, World Bank and the Asian Development Bank (Morden and Bowles, 1998).

In recovery from the Asian financial crisis, South Korea has begun an economic reform program designed to address some of the fundamental conditions which had destabilized its economy. Since that time, the South Korean government has begun a program to reduce the general economic influence of the *Chaebols* (large, multi-industry conglomerates), especially in relation to the financial sectors which has been weakened by a large number of non-performing loans. During the growth era, observers had characterized the close business-government relationship between the Chaebols and the Korean Government as 'Korea Inc.', where the national government set the policy frameworks in which the conglomerates operated and prospered (El Kahal 2001). In this system, government traditionally controlled firms' access to capital and thereby dictated the strategy and operations of the Chaebols (Ungson et al, 1997: 43). More recently, the Chaebols have been pressed to spin off their non-core businesses, and to rationalize their corporate structures. In other economic measures aimed at stimulating domestic demand, the South Korean government enacted a package of tax cuts directed at lower and middle income workers. The government also has plans to privatize several large state-owned enterprises, including the State Electric Utility, Korean Electric Power Corporation (KEPCO) and natural gas monopoly Korea Gas Company (KOGAS).

Services industries make up approximately 60 percent of the Korean GDP followed by industry (36.4 percent), and agriculture (3.6 percent) (CIA World Factbook, 2005). Korea is currently the world's largest ship builder, second biggest steel producer and home to the world's leading semi-conductor manufacturers. South Korean exports in 2003 earned US\$201 billion with semiconductors, wireless telecommunications equipment, motor vehicles, computers, steel, ships, and petrochemicals being the major export commodities. Major export partners were the China (18.2 percent), US (17.8 percent), Japan (9 percent) and Hong Kong (7.6 percent). Imports in 2003 totalled US \$175 billion estimates with machinery, electronics and electronic equipment, oil, steel, transport equipment, organic chemicals, plastics being the major commodities. Korea's major import partners were Japan (20.3 percent), US (13.9 percent), China (12.3 percent) and Saudi Arabia (5.2 percent) (CIA World Factbook, 2005).

*External Factors: Drivers of Globalisation and Foreign Investment Policy*

The major forces driving Korea as a leading world economy of the world have been supportive government policies on foreign investment, and efficiencies derived from increased competition in a variety of industries within the Asia-Pacific region, technological advancements and infrastructure building, low cost production offering economies of scale and scope and increases in disposable income and market size in the Korean economy (Kim and Campbell, 1995; Sohal and Ritter, 1995).

#### *Government Enablers*

Since the 1960s, South Korean government intervention towards the establishment of an export oriented and relatively protected domestic economy has been a highly successful formula for growth. However, as part of the recovery process from the Asian Financial Crisis, the government is steadily changing its longstanding discouragement of foreign participation in the indigenous economy (Whiteley and England, 1977). “Liberalisation and deregulation is slowly opening the economy to foreign investors, especially in the areas of construction, telecommunications, distribution and finance” (Yip, 2000: 70). The basic policy direction of the Korean government on foreign investment has been to facilitate market access and provide domestic status to foreign firms after their establishment through a number of initiatives (El Kahal 2001). Some of the initiatives that have brought about a positive climate for investment in Korea include granting domestic status to foreign investors to encourage free and fair competition between indigenous and foreign companies; replacement of the Foreign Capital Inducement Act of the 1960s with the new Foreign Investment Promotion Act to attract foreign investment; and implementation of the High Tech Industry Cooperation Act of 1995 to provide financing and taxation benefits for Foreign Direct Investment (FDI).

The government has also directed initiatives towards reducing and eventually dismantling the restrictive trade barriers which have protected the indigenous economy against foreign influence. The government has also promoted the use of market mechanisms to improve the competitiveness of Korean firms by lowering tariffs and loosening regulations. For example, one of the major trade barriers against Japanese imports was the import diversification regulation which was intended to block Japanese imports that might have had a direct negative impact on Korean products such as consumer electronics and automobiles. This regulation disallowed Japanese-made Toyotas or Hondas from being imported into Korea, while American and German cars were allowed to be freely imported.

Recently, the government has proposed a series of laws related to the protection of intellectual property rights and patent laws which would be a critical in encouraging American, Japanese and German Multinational Companies (MNCs) to invest capital or transfer technology to South Korea. The government hopes to attract foreign investment and acquire the latest technology by implementing these laws governing intellectual property and patents.

#### *Market Enablers*

With a per capita GDP of US\$17,800 (2003 estimates), the level of disposable income in the hands of South Korean consumers has provided a general rise in the standard of living and has altered consumer tastes and preferences. South Koreans are being exposed to foreign cultures as opportunities for higher education, international travel; cross-border business networks and alliances have increased (Morden and Bowles, 1998). Research on changing consumer preferences indicates that younger Koreans are being influenced accordingly, and demand for Western style goods is increasing. A recent Electronics Industry of South Korea study indicated that 29.6 percent of Korean respondents preferred South Korean products whereas 6.6 percent purchased foreign products. However, 63.8 percent of the respondents indicated that they were undecided, suggesting that there were favourable market opportunities for foreign goods to enter the South Korean markets.

Over the past ten years, several foreign MNCs have made inroads into the South Korean economy. Some of them include fast food giants KFC and Pizza Hut and home appliance MNCs including Phillips, General Electric, Siemens, Whirlpool, Westinghouse and Moulinex. With the Korean government’s initiatives to deregulate distribution channels since July 1993, more than one hundred distribution-related foreign businesses have commenced operation in South Korea, particularly in areas of retail, wholesale and services. These include Amway and Nuskin in multilayered distribution, Tower Records and Museum Company in speciality distribution, and Sharper Image in catalogue retailing (Jun and Yip 2000). French hypermarket chain Carrefours, Dutch Makro

distribution chain, and American warehouse shopping giant Price Club have all made inroads into the Korean economy. The opening up of the distribution networks has also provided opportunities for Japanese companies to enter the Korean economy.

It is clear that South Korean Government policy will provide significant competition in the domestic market place for the indigenous industrial conglomerates, the Chaebols, which have been responsible for so much of Korea's export led growth in the post Korean War era, and have dominated much of the home market. The next section will provide a micro level description of the business management structures and systems of these behemoths, since their central place in the economy means that an understanding of them is integral to an understanding of Korean Management.

#### *Demand Side Enablers*

A number of observers have noted South Korea's growing importance as an economic powerhouse not only in the Asian region, but also across the globe as a global player. A wide variety of Korean MNCs across the automobile, semiconductor, consumer electronics, steel and shipbuilding industries are now world leaders in their respective fields. For example, Hyundai, Samsung and LG together account for approximately twenty six percent of the global memory chip industry (Jun and Yip 2000). Daewoo, Hyundai and Kia have made strong inroads into a number of countries in Asia-Pacific and across the globe. Further, the information revolution supplemented by a burgeoning middle class and a rapid expansion of per capita income has led to an enormous increase in demand for new appliances in the domestic market. The cellular phone market evolved during 1993-94 and by 1996, the demand had reached 2.4 million units and latest estimates show a demand in the range of 33 million units in 2003 (CIA World Factbook). With 29.33 million internet users connecting to the information gateway, the demand for personal computers is rapidly increasing.

#### *Supply Side Enablers*

South Korea is no longer attractive as a low labour cost production site owing to increased manufacturing wage rates, higher inflation rates and interest rates when compared to Japan, Singapore, France, U.S. and Germany (Jun and Yip, 2000). However, South Korea with its well-educated, highly trained workforce provides operational efficiencies and production improvements for high value-added products as an offset to high labour costs. The unfavourable increase in labour costs is also being offset by the rapid expansion of its domestic market which makes it easier for companies to achieve economies of scale and scope in production and marketing. This has led to a radical change from labour-intensive to capital and technology-intensive mechanisms whereby production has shifted from multistage assembly-type handling with large number of workers involved to a high degree of automation, electronically controlled testing and inspection and the development of new parts and components. Technology adoption and deployment has given South Korean firms especially in DRAMs, LCDs, satellite receivers, ultrasound diagnosis technologies, semiconductors, memory chips and wireless telecommunications equipment including pagers and mobile phones a healthy competitive advantage (Kim, Nam and Stimpert, 2004).

The South Korean government has been continuously upgrading its infrastructure to promote the country as an attractive business location as well as to assist indigenous industries to compete in the global arena. The government has initiated a number of large-scale public works to remove bottlenecks and improve transportation and logistics through South Korea (Kim, 1996). Government initiatives aimed at improving logistical networks include construction of Yongjong-do New International Airport, the expansion of port capacity at Kadok-do and Kwangyang, completion of the West Coast Freeway and the Seoul Pusan High Speed Railway. The government is also considering initiatives to strengthen international trade, banking, finance and transportation regulations and generally reduce bureaucratic restrictions to business initiatives.

## **Meso Level: Industrial Infrastructure**

#### *Korean Chaebols: Business Organizational Characteristics*

A *Chaebol* can be defined as a Korean business group comprising of large companies that are owned and managed by family members and relatives in many diversified business areas (Chen 2004). The term *Chaebol* means a

financial faction linked to various corporate enterprises engaged in diverse businesses producing and offering a wide variety of products and services. Normally, such a conglomerate is owned, controlled and managed by family group, or perhaps two inter-related family groups (Ungson et al., 1997).

#### *Rise and Growth of Korean Chaebols*

The first Chaebols were formed in South Korea in the 1920s and 30s when Korea was under Japanese colonial rule. To a large extent, Japanese interests planned and shaped Korea's economic development to satisfy its markets and set up a series of companies that were privately owned and managed but under strict control of the central government – through credit, licensing approvals and other measures (El Kahal, 2001). This system installed by the Japanese was later extensively revamped and developed during the tenure of President Park Chung Hee from the 1950s to the 1970s. The regime selected a few companies which received preferential treatment and a range of subsidies to grow and prosper, which became known later as Korean *Chaebols*.

Chaebols can be classified into three groups: the late 1950s Chaebols such as Hyundai, Samsung and LG which were created by self-made founders who benefited from the sale of government owned properties, preference in taxation and the preferential allotment of grants. Chaebols of the 1960s such as Hanjin, Korea Explosive, Hyosung, Sangyong, and Dong-A were formed with the help of foreign loans during the institutionalisation of the five-year plans proposed by the government. The last group are the Chaebols of the 70s and include Daewoo, Lotte, Doosan, Kolon and Sunkyung which were the offspring of the rapid growth in exports and local demand (Chen 2004). These conglomerates have become the pride of the Korean economy and have enjoyed monopolistic profits as a result of the strong government backing in the form of tax concessions, tariff barriers and wage and labour movement controls in a wide variety of industries. They have employed over a million employees and have acquired a massive, and some would argue, excessive, concentration of economic power.

#### *Features of Korean Chaebols*

The major difference between Korean Chaebols and the Japanese Keiretsus is that generally, Chaebols do not have financial institutions (banks) as part of the group, hence making them more dependent on government approval, especially after the nationalisation of South Korean banks in the mid-1970s (El Kahal 2001). Also, unlike Japanese Keiretsus which are vertically integrated within the same industry, Chaebols are commonly spread across numerous industries. Further, they tend to have a more formalised organisational structure and more centralised control than their Japanese counterparts. And in contrast to the Keiretsus, the Chaebols are family dominated, highlighting a fundamental difference in the concept of 'family members' which exists between the two cultures (Lee and Yoo, 1987a). That is, the Japanese concept of 'family' consists of two distinct meanings – one is the concept of family based strictly on blood relationship and the other is the concept of household which is not only based on blood relationship but also on adoption. The Korean concept is strictly based on blood relationship. This inherent difference in concept has important implications for family inheritance and ownership structure. In Korea, inheritance is strictly an outcome of blood relationship, with the eldest son enjoying priority over other family members (Lie, 1990).

According to Hattori (1989: 87 – 88), the family ownership of Chaebols can be classified into three types. The first is direct and sole ownership, where the founder or his family members owned all the Chaebol affiliated companies. An example of this type is the Hanjin group. The second was the domination of a holding company, which in turn owned the affiliated companies. The Daewoo group fits into such a structure. The third was interlocking mutual ownership, where the founder of his family members owns the holding company and/or some kind of foundation, which in turn owns the affiliated companies. The Samsung group represented this type. Chen (2004) notes that the common trend seems to be a progression from the first type to the third as the Chaebols grow in size, though it may be a long and difficult process.

Another distinguishing factor of the Korean Chaebols is their commitment to entrepreneurship. The strong entrepreneurial orientation which has encouraged risk-taking has largely contributed to the rapid growth of the Chaebols during the 'Asian Miracle' and also to their sudden collapse during the Asian Financial Crisis (Morden and Bowles, 1998). Chaebols can move more quickly and decisively than their Japanese counterparts as they are much smaller and because their family dominated management structures mean they have to devote much less time to consensus-building among different managerial levels (Ungson et al., 1997). "This characteristic has proved

valuable in riding the Asian crisis through the introduction of swift measures of restructuring and reforms” (El Kahal 2001: 168).

## **Micro Level: Approaches to Management and Effectiveness**

### *Management Patterns and Processes*

Understanding Korean management style, patterns and processes is important for overseas companies, business partners and managers liaising with Korean companies and managers. Observers have noted that Korean management is at present undergoing a radical change owing to a massive corporate restructuring process. Despite these changes and the increasing Western cultural and management influences, Korean management remains unique. A brief description of the characteristics of this unique management style is presented next.

### *Organisational Culture*

Korean companies have developed their own management style often referred to as K-type management. This unique management style is underpinned by Chinese Confucianism ideas, as well as Japanese and American management influences. The resultant outcome is said to represent a unique blend of Western and Eastern management philosophies and practices (Morden and Bowles, 1998; Fukuyama, 1995; England and Lee, 1971).

Koreans are traditionally hard working people. This trait can be traced back to the Confucian value system and is referred to as *eui-yok* which means ‘will’ or ‘ambition’ (Ungson et al., 1997: 170-01). An employee with *eui-yok* has an internal drive or motivation to succeed and to accomplish something important. While this internal achievement oriented drive exists in both Eastern and Western work ethic, the basis of focus of this drive is different in the two contexts. In Korean a ‘Confucian’ work ethic, an employee’s work effort is primarily group oriented. *Eui-yok* entails hard work so that the group or the company benefits. The Western Protestant work ethic however emphasises individual advancement and achievement. The employee generally puts himself first. Indeed Davis and Rasool note that “the goal of organisational growth is highly valued by Korean managers, relative to managers from other countries, and represents their strong desire for continued industrial development of Korea (1988: 16).

These values underpin the basic principles of K - type (Korean - type) management which include: top-down decision making, planning and coordination; authoritarian and paternalistic leadership; *inhwa* (harmony oriented cultural values); centralised management; flexible life-time employment; compensation based on seniority and merit; and high mobility of workers (Lee and Yoo, 1987b). Each of these features is discussed in the next section.

### *Leadership and Decision-Making Styles*

Given the strong influence of family traditions, there is a tendency for Korean business leaders, especially founders, to manage on the basis of principles governing the family or clan system. As Confucian dynamism favours regimentation and authoritarianism, authority in Korean firms is concentrated at senior levels of managerial hierarchies with the Chairman on top, followed by the president, vice-president, senior managing director, managing director, department manager, section manager to the foreman and blue-collar workers (Morden and Bowles, 1998). Thus, a top down decision making style is common among Korean companies. Approximately eighty per cent of the authority lies in the upper management levels, with middle and lower management having a very limited authority (Lee and Yoo 1987a). Authoritarian leadership has been a well accepted managerial norm under the centralized structure of Korean companies with the reins of management generally being held by one central paternalistic figure (Fukuyama, 1995). The chief executive or founder usually accepts personal responsibility for the performance of every aspect of the company. It is expected that a supervisor or manager will assume personal responsibility for the development of his subordinates who in turn will respond with respect and obedience. A manager or supervisor also takes an active interest in his subordinate’s family life, attending functions, and giving gifts on occasions. (This is in contrast to the Western norm that clearly separates work life from home life). However, the traditional decision making *pummi* (proposal submitted to deliberation) is still practised and used to predominantly diffuse responsibility (De Mente 1991).

This paternalistic authoritarian behaviour is heavily influenced by a key value of Korean behaviour *inhwa* which is defined as harmony, and is similar to the Japanese concept of *wa*. *Inhwa* emphasises harmony between

unequal in rank, power and prestige (Alston 1989). Korean managers cherish good inter-personal relationships with their subordinates and try to keep the needs and feelings of subordinates in mind. Another aspect of *inhwa* is that each party has responsibility to support the other. Managers tend to make decisions in consultation with their subordinates. The process of informal consensus formation or *sajeonhyupui*, is similar to the Japanese *nemawashi* but Korean subordinates are normally reluctant to express their opinions to their supervisors (Chen 2004). Managers are often expected to consider their subordinates feelings before making appropriate decisions. Managers maintain various interactions with subordinates informally to achieve harmony-oriented leadership based on mutual trust and benevolent authoritarianism.

#### *Centralised Planning, Co-ordination and Communication*

Most Chaebols have a planning group, known as the planning and co-ordination office, the central planning office, or the office of the chairman (Chen, 2004; El Kahal, 2001). The central planning group works closely with the group chairmen in major decision making including design, development and implementation of strategic plans for future corporate actions. The group office collects, analyses and prepares reports for dissemination to the chairmen and other core members for future decision making. The planning group also plays a major role in personnel decisions and is mainly responsible for screening, hiring and assigning newly recruited staff with a view to ensuring continuity and quality across various business units. The group also overlooks the transfer of personnel between functional units and companies and also the overall salary structure and bonus system.

Formal communication in Korean businesses is mainly achieved along vertical hierarchies which are an outstanding feature of organisational communication (Lee 1989). The organisational communication process depends largely on hierarchical relations, which are determined by a combination of factors, ranging from formal authority and informal social status to length of employment and age (Chen 2004, Morden and Bowles, 1998). In the vertical communication process, superiors are expected to give directives to their subordinates who in turn are expected to comprehend and implement those directives. The directives are oftentimes vague and general as opposed to being specific and detailed and subordinates prefer using their own judgement in interpreting the directives rather than asking their superiors for clarifications. A study across twenty seven Korean organisations concluded that lower levels of centralisation and conflict in Korean organisations were associated with positive employee perceptions of organisational climate (Sommer, Bae and Luthans, 1995). Another feature of communication in Korean companies is that Korean employees usually attach more importance to upward formal communication on hierarchical lines rather than to communication on horizontal interdependent lines which may have resulted from the high centralisation of authority. De Mente (1991) has noted that poor horizontal communication between vertically structured departments has become a major barrier to many large Korean companies to efficient organisational performance.

#### *Motivation*

Like the Japanese work force, Korean employees are highly motivated and known for their long working hours. Korean culture underpinned by Confucian influence has contributed to this conscientious work ethic. Confucian values of diligence and harmony combined with an instinct for survival are the driving forces that motivate Koreans to work hard. While specific motivations vary depending on the size and structure of the company and the level of seniority, high wages and job security tend to be the most important motivational factors (Chen 2004). According to a 1984 study conducted by the Korean Chamber of Commerce and Industry, executives of large companies cited 'environment for voluntary participation' as the most effective incentive, while CEOs of small companies regarded the management-by-objective (MBO) system as the best motivational technique. Further, it was also reported that older workers over sixty years of age cited wages as the most important incentive for hard work, while new management staff under thirty years of age viewed 'environment for voluntary participation' as the most effective means of motivation and increasing productivity (Kim and Kim 1989). Lee (1989) notes that Korean employees working as a group emphasize extrinsic factors including wages, working conditions and job security much heavily than on intrinsic factors like creativity (*changjo*), achievement and recognition for high enthusiasm and motivation. Given that harmony and a strong work ethic have become the most cherished values of Korean employees, the external factors are even more important as the employee's value group interpersonal relationships. Chen (2004) however notes that with Korea's embrace of the intensification of globalisation and increased complex environment

in which the Korean companies operate, more and more Korean companies are shifting their emphasis to intrinsic motivation factors in order to establish a worldwide status and brand name.

#### *Human Resource Management*

Korea has a large pool of well educated, skilled and highly motivated workforce. About ninety eight percent of the populace can read and write (CIA World Factbook 2005) and English is now widely taught in junior high and high schools. More than eighty percent of Korean teenagers finish high school studies and a majority of high school graduates attend university, vocational or professional training schools. This vast talented pool of fresh graduates provides a recruiting minefield for Korean companies whose human resource management priorities include recruiting the best candidates from this pool, designing and operating on-the-job training programs, instituting and reward and appraisal program, determining severance and retirement policies and defining industrial relations policies while dealing with trade and labour unions.

#### *Recruitment and Training*

Most large Korean companies classify employees into three distinct categories: core (top management), basic (permanent staff) and temporary. Most Korean companies hire employees through word of mouth or reference checks, a test for knowledge in specialised areas, tests for English proficiency, a personal interview and a physical/medical examination. Korean companies prefer fresh talented college graduates or experienced professionals (Chen 2004, Lee 1989). Recruitment in large Chaebols is very competitive and campus recruitments in June and November often attract the brightest graduates from prestigious Korean universities.

#### *Compensation and Promotion: Emphasis on Seniority and Merit*

Reward and promotion systems in Korean companies are traditionally based on seniority and merit. Increasingly, performance has become an important factor in reward and promotion-related decisions (Lee, 1989). Over time, Korean companies have gradually combined seniority with performance in their reward distribution rationale. Wages are generally based on seniority, but bonuses may be awarded based on performance in many Korean companies (Chen 2004). It is strongly believed that the seniority system contributes to the maintenance of group harmony and reduces competition between co-workers.

#### *Severance and Retirement*

Lay-offs are common in Korean companies. Moving with business cycles, Korean companies lay off staff during a general downturn in the economy when cost cutting initiatives are imperative. Korean employees are known to change jobs freely, though many of them work with one organisation until retirement. Job-hopping is quite common among skilled staff and although Korean employees attach great importance to their companies, they would not normally feel embarrassed to accept better position/pay offers from other companies. Song (1990) noted that because the concept of loyalty in Korea is based on individual relationships, the loyalty of Korean employees is often devoted to a specific superior and when a manager moves to another company on a better offer (position and or pay), often the manager may bring many of his loyal subordinates to the new company.

Most Korean companies do not have a uniform retirement age, though many require their staff to retire between 55 and 60 years of age (Chen 2004). Retirement age depends on rank and senior managers and executives usually have an extended retirement age. Korean companies do not normally make a distinction between resignation and retirement age in calculating severance or retirement pay. Chang (1989) noted that most Korean companies set aside one month's salary per year for severance or retirement whereas some companies put in an additional two or three months per year in calculating the total period of service.

#### *Competitive Strategies*

Many Korean companies achieved rapid economic growth and development by improving their manufacturing and service capabilities and diversifying their businesses before the Asian Financial Crisis of 1997. With radical reforms institutionalised by the government enabling foreign companies to directly invest in the Korean economy and supported by a well established infrastructure, Korea's economic progress was unstoppable (Morden and Bowles, 1998). Foreign multinational companies increasingly recognised Korea's potential as an emerging economic powerhouse and made Korea part of their regional and global strategies. Korean Chaebol corporate strategies were also aimed at expanding the profile of the Chaebols as world class conglomerates offering products and services worldwide. As competitive strategies have a significant impact over organisational structure, processes and

managerial efficiency, an analysis of the competitive strategies commonly adopted by Korean companies helps understand the positive turnaround and development of Korean businesses.

#### *Manufacturing Development and Product/Service Strategies*

In the pre-financial crisis era, many Korean companies took advantage of the trade liberalisation policies institutionalized by the government, especially the import-substitution policy and adopted a strategy of selecting growth/maturity stages of products (Hahn 1989, El Kahal 2001). As unskilled labour was inexpensive and in abundant supply, most companies concentrated on labour-intensive light manufacturing industries. A number of cement and fertilizer industries were also developed to assist the agricultural development initiatives. This development initiative was a win-win situation for both the government as it saved much needed foreign exchange by investing domestically and dramatically. This was also positive for individual companies, as they were strongly backed by the government and quickly developed into worthy competitors for labour intensive products in the global marketplace (Chen 2004, Lee, 1992).

As the government increased its investment in infrastructure and telecommunications in Korea, the government promoted technology transfer and duplication incentives (Cho, 1993; Gywnne, 1993). Kim and Kim (1989) note that large intermediate goods manufacturers of cement, fertilisers and chemicals adopted an apprenticeship strategy and relied heavily on support from foreign entities via turnkey plants, licensing and consultancy. Korean technicians and engineers received orientation, training and know-how which enabled them to use the expertise in maintenance and development of the initiatives. Smaller manufacturing companies on the other hand, did not have any financial resources to negotiate with the suppliers of foreign technology and hence resorted to alternative measures like upgrading their products/services and technologies through reverse engineering and imitating locally available foreign products. Chen (2004) notes that this approach was prevalent in the early period of the technology transfer initiatives. Korean Steel Pipe, for example, successfully duplicated and improved the Japanese model through imitation.

#### *Diversification and Market Participation Strategies*

Diversification strategies are crucial for gaining competitive advantage and are important for growth in any business. Large Korean Chaebols had pursued diversification strategies until the mid-1990s and these strategies had been well supported by the Korean government. The government supported its dream of developing world class conglomerates that could compete successfully in the global environment by encouraging Chaebols to implement 'octopus-arm' diversification strategies (Chen 2004). The encouragement provided by the government coupled with strong Korean entrepreneurial mindset propelled the major Chaebols like Samsung, Hyundai, LG and Daewoo from locally based organisations to global business houses in two – three decades and developed as the pillars of the Korean economy. Kang (1989) contends that the Korean attitude of 'get the order first and figure out how to do it later' helped this initiative.

Diversification strategies can be categorized as: single, vertical, dominant-constrained, dominant-linked, related-constrained, related-linked and unrelated. Large Chaebols like Samsung tended to follow the strategy of unrelated product diversification by entering into sugar and woollen textiles in the 1950s; electronics, fertiliser and paper production in the 1960s; shipbuilding in the 1970s and aircrafts, bio-engineering and semiconductors in the 1980s. Smaller companies generally pursued the strategy of pursuing a single or dominant and well established product structure. Medium-sized companies tended to adopt related product diversification, strategy that was in between what the large and small companies pursued (Cho 1989). Table 3 outlines the growth strategies of Chaebols. Diversification strategies also varied across industries with vertical diversification adopted by textile manufacturers owing to a continuous supply of raw materials and market outlets being critical for survival. Companies in the food and beverage industry generally adopted a related-constrained strategy whereby products closely related to each other in the use of raw material and distribution channels were manufactured. The dominant-constrained strategy was seen to be popular in the metallic and non-metallic industries as it enabled management to focus on a few dominant product lines using the same organisational resources (Chen 2004).

## **Conclusion**

This paper has utilized a comparative management model to describe the prevailing management approach for the Chaebol, large industrial conglomerates which dominate the South Korean economy. This model has enabled an examination of the Korean business environment and business management systems at macro (global and local environments), meso (industrial infrastructure) and micro (managerial and managerial effectiveness) levels.

Korea, always in the shadow of its powerful neighbours China and Japan, has had a remarkable political, economic and cultural history. Perhaps the most striking feature of this history is the fact that Korean culture, society and nation has survived in its precarious neighbourhood. Exemplifying this spirit, following the pervasive destruction of the Korean War between 1950 and 1953, the Korean Government utilized the Chaebol, clusters of family dominated companies with family dominated confucianist management hierarchies, as a vehicle for rapid industrialization and entry into international markets. This approach was spectacularly successful, apart from the temporary disruption of the Asian Financial Crisis of 1997. Contemporary Korea, is confidently expanding its industrial base, taking full advantage of globalizing trends, especially in terms of access to foreign markets and adoption of technology. Current Korean government policy, in contrast to the first phases of economic post Korean War expansion, continues to facilitate the international operations of the dominant Chaebol groups, is increasingly allowing foreign entry to the Korean domestic market enhancing competitiveness and efficiency in the deployment of human, capital and physical resources. The Korean management system, a unique hybrid of native and foreign influences, continues to adapt and evolve in the age of globalization. The mainstay of the management system, the highly educated and motivated Korean workforce, nurtured by government economic, education and ICT policies, remains a fundamental source of managerial effectiveness and competitive advantage.

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# **Creativity, Innovation and Technology Transfer: Towards a New Strategic Management Paradigm**

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## **Abstract**

This paper explores the fundamental limitations of the two-step technology transfer mindset by examining two major examples of its failed application. The first example is the notorious disconnect between university research and business performance. The second examines the unsuccessful attempt to establish a major aircraft factory in Indonesia as part of a rapid industrialization strategy. The failure of these examples is then set against the outstanding success of both long-established and relatively new enterprises such as Johnson & Johnson and Dell Computer. These success stories highlight the importance of tight customer focus and the strong branding of an integrated business model. They demonstrate also the importance of taking a broad view of innovation and of recognizing the power of intangible, aesthetic and emotional sources of customer value, which many traditional, technology-focused research institutes and innovation programs tend to ignore. Drawing upon the analysis of both successful and unsuccessful cases, the paper proposes a new strategic management paradigm which emphasizes the critical role of innovative, entrepreneurial leadership in designing business models, creating resource capabilities and converting these capabilities into new sources of customer-centered added value. The implications of this paradigm for organizational design, and especially for university research management and structures, are then outlined and depicted in an ideal model labeled INOVACC (Interactive Network of Value Adding Core Competencies). An elaboration of this model, including a detailed description of Hollywood film-making, demonstrates the central importance of creative ideas and innovative systems, such as knowledge and competency-based networks and multi-disciplinary project teams, as essential capabilities for building and implementing effective business models.

## **The Myth of Innovative University Research**

The power and pervasiveness of myths should not be underestimated and their cost is probably best left uncalculated. Mindsets develop roots, stakeholders become entrenched, assumptions turn into beliefs and so the capacity to learn is lost. Take the case of universities and their contribution to innovation, for example. Anybody stoic enough to make a comprehensive study of university mission statements would discover that most universities claim they give very high priority to being innovative and to having a world-class reputation for it. Linked to this boast, in most cases, is an extravagant commitment to partnership, especially research and development partnerships, and to working closely with business in creating new products, processes and technologies. In some cases companies have established campus-based research facilities. However, while a parallel study of corporate mission statements, annual reports and planning documents reveals a similar commitment to innovation and partnership, there is very little reference to the contributions of specific universities. Certainly it is extremely rare to find universities being given credit for commercial triumphs or business out-performance. From the corporate side, it would appear that university research collaboration is frequently at the margin, related to a highly localized requirement, or even simply just based upon philanthropic, broadly-defined sponsorship.

The myth of university innovation is clearly exposed by probing the reality of research funding and management. It is frequently the case that an individual academic's research status, recognition and rewards are determined more by traditional academic peer review processes than by his work's innovative impact in the external environment. It counts much more to give an esoteric paper at a local academic conference than to present an invited keynote address to a major international conference of business or professional practitioners. A competitive research grant awarded by a government research body would probably attract much more professional glory than a fee ten times that amount to conduct a major research project for Microsoft or Boeing. Similarly, a scientist responsible for creating a patent, which proves to be impractical and is never commercially implemented, will generally be given

more research credit by his university than the colleague whose advice leads to major changes in a bank's customer relations.

The absurdity of using crude quantitative measures to assess research quality is demonstrated by the debasement of the patent system. Originally devised to protect and facilitate innovation, it now has the opposite effect, as a quick Google search reveals. An exploration of headings such as 'patently absurd', 'patent madness' and 'patent stupidity' soon throws up a plethora of bizarre mutations, which are obviously more concerned with blocking competitors by partitioning off large markets or basic technical functions, than with creating and securing genuine, value-adding innovations. For example, Amazon has patented 'one-click ordering' and other leading companies such as Dell, Intel and Kodak have obtained patents which will allow them to monopolize significant market segments and functional capabilities. Given that there are patents for such banal so-called inventions as pet toilets, meditation bags and keeping calendars on the Web, it is remarkable that research reports continue to cite the number of patents applied for and granted to an organization, as though they are reliable indicators of research performance, often without even disclosing whether or not the patent was eventually implemented (see Shulman. 1999; Monbioy. 2002).

Universities seeking a research reputation generally encourage, even pressure academic staff to maximize their research output, which is frequently evaluated on an annual basis (National Survey of Research Commercialisation. Year 2000, 2002, pp.8-11). There are strong incentives to publish as much as possible in as short a space of time as possible. From an innovation perspective, this approach is highly dysfunctional because it motivates ambitious staff to publish numerous fragmented, trivial papers in relatively unread technical academic journals, rather than to write a more carefully-considered, wider-ranging article for a magazine with a larger, more influential readership base. The debasement of research quality is reinforced by the ever-increasing proliferation of mediocre specialist academic journals, which are launched in order to accommodate the flood of material seeking publication. Ironically, an article commissioned by the editor of an international paper such as the *Financial Times*, or a magazine such as *Fortune*, and read by senior executives and decision-makers all over the world, would not normally count as a research publication, or be taken into account in measuring the academic's research productivity, no matter how erudite and influential (Morris. 2005, p.68).

Commercial arms such as consulting companies and cooperative research centers, involving representatives from university faculties, government research organizations and corporate partners, are among the most commonly-used entities for transferring and commercializing academic research. However, there can be little doubt that universities are much more comfortable and successful in producing curiosity-driven research, as opposed to strategic or applied research. Despite indirect subsidies, and access to an extensive variety of resources and facilities, very few university-controlled technology transfer companies and 'spin-outs' have maintained a consistent record of commercial viability, with those operating at Stanford and Cambridge universities, for example, being very much in the minority (McLeod. 2004). Even when universities are active in contributing to, or developing science parks, there are very few examples of spin-offs or partnerships becoming successful new publicly-listed companies. Indeed, it is generally the case that the majority of enterprises located near university campuses have little or no regular contact with the neighbouring academics. Although there is a great deal of scope for linking staff and student research projects, professional secondments and work experience programs with the development of new entrepreneurial ventures, such initiatives are rare. Despite a great deal of rhetoric, and a profusion of high profile committees, there is a notable absence of innovation in creating the kinds of business models, management structures, integrative mechanisms and course curricula which would transform the knowledge-based, task-orientation and work skills of those involved in university/science park precincts.

What is the explanation for the persistent disconnect between university research and business performance? One reason stems from the entrenched university tradition favouring pure over applied research. This bias has been reinforced by the late development of business and management schools and the poor funding support which they have typically received. Research grants allocated to these areas remain a small fraction of funding directed towards science and technology projects. Another factor, related to the first, is the influence of political agendas, and especially iconic public policy programmes in fields such as defense, health and telecommunication. The love affair with technology, and research emphasizing discovery and invention, probably got out of control in the 1960s following President Kennedy's challenge to put a man on the moon and bring him back before the end of

the decade. As the delusion that technological invention is synonymous with human progress took hold, university research budgets became increasingly distorted and imbalanced. Not only did science and technology take priority over social, cultural, economic and management issues, but in some countries business-related research was not even accorded the status of a distinct funding category.

## **A Comparison of Two Technology Transfer Strategies**

A comparison of the very different technology transfer strategies pursued by Indonesia and Singapore in the early 1990s highlights the dilemma facing university research strategists. Singapore from the beginning set out to work closely with, and learn from, its carefully chosen technology transfer partners. It also took pains to ensure that technology transfer arrangements were always driven by business strategy, not the other way around, as was the case in Indonesia. The approaches adopted with respect to the aircraft industry illustrate the difference very clearly. Taking account of global trends in the industry, the Singaporeans designed a business model which positioned their country as a major regional hub, with the emphasis upon service-related activities. Accordingly, they developed close partnerships with the major aircraft manufacturers and airlines in order to acquire the tacit knowledge, as well as the technical skills, needed to meet the very specific requirements of their partners. In addition, the Singapore Government was both entrepreneurial and innovative in creating and branding a world-class airline, airport, aircraft maintenance center as well as a major and annual aerospace exhibition. This is an outstanding example of a value-adding cluster effect in which service quality is emphasized as heavily as technological excellence.

In contrast to the Singaporean approach, Indonesia set out to establish an aircraft manufacturing industry. Under the responsible minister, Dr.Habibie, an engineer, a company (IPTN) was established in order to achieve this objective, as part of a larger national strategy for rapid industrialization. It was assumed that, by acquiring technological capabilities in a variety of high technology industries, these skills would then be gradually diffused, transferred and re-applied throughout the economy. It was a false premise. Although IPTN was successful in learning from its foreign partners how to manufacture high quality aircraft, it neither succeeded in becoming a sustainable business enterprise nor did it achieve the aim of spawning related industrial activities based upon the capabilities acquired. It highlights the fallacy at the heart of the government-led technopreneurship campaigns of the 1990's.

The IPTN experience has two important lessons for university researchers engaged in commercializing intellectual property. The first lesson is that the technology-receiving organization will need to learn how to absorb and convert its new knowledge into a value-adding capability as part of an integrated business model. Often university researchers are only interested, and only involved in the technical aspects of the transfer. Connected to this point is the second lesson, which is that the effective translation of knowledge into practice is surrounded by a great deal of tacit understanding which is context specific. When the transfer takes place in a different environment, culture or industry, a new set of variables will come into play and impact upon the implementation process. Furthermore, because deep knowledge of the factors shaping commercial performance in a specific organizational context will often be an essential ingredient of the original technological concept, it is desirable that university researchers enter into long-term innovation partnerships rather than arms-length relationships. From the perspective of the technology-receiving organization, strong entrepreneurial leadership will be a critical ingredient, whereas the researcher will need, not only a good grasp of the principles of project management, but also considerable insight into the forces that shape management effectiveness and organizational behavior (Hansen. 2004, pp.26-27).

## **Innovation as Added Value for the Customer**

It is important to acknowledge that technology is the underpinning resource driving the integration and expansion of the global economy. In addition to providing information and communication linkages, technology is the catalyst for innovation in product development, service delivery and business efficiency. Furthermore, the new technological tools have made it possible for proactive firms to build international alliances and participate in networks as a means of accessing new markets, protecting core competences and achieving economies of scale. However, it is also

important to keep remembering that technology is nearly always a resource rather than the solution and that it requires highly creative managers to design and implement the business models which produce innovative added value (see Exhibit 1). Because the added value in technology is latent, the first challenge is to leverage its power in the service of customers. The second challenge is to sustain the resulting competitive advantage, given the rapid rate of technological change and the ability of competitors to match and nullify technological advances. It is the successful response to this challenge which represents the major source of business innovation, as the cases of Johnson and Johnson (J&J), Dell computer and Google clearly demonstrate.

J&J is one of the world's most successful and respected companies. Although it is one of the world's top three health care businesses, its success is due more to a portfolio of iconic products and a reputation for social responsibility than for cutting edge scientific research or pioneering inventions. In this respect J&J is not unlike Microsoft, which while maintaining a very large research budget, nevertheless concentrates upon serving a mass market. Although these two priorities may appear somewhat inconsistent, they contribute to a strategy which is both highly creative and innovative and market-driven *and* customer-centric. Furthermore, both companies recognize that successful innovation is not only accidental but essential and therefore heavy continuous investment is required (Tidd *et.al.* 2005, p.541).

At a time when its main competitors, especially Pfizer and Merck, are experiencing difficulties, J&J continues to set new performance records. Indeed, for seventy-two consecutive years it has increased sales, for forty-two years annual dividends have increased and for twenty successive years double-digit sales have been maintained (J&J Annual Report 2004, 2004-5). How is this remarkable record to be explained? Part of the answer lies in J&J's carefully-refined business model, which has evolved over more than a century of continuous operation, and which includes the following features:

- A significant and consistent, high-profit cash flow is provided by long-established mass market products such as Johnson's Baby Powder, Band-Aids and Tylenol
- One-third of all sales come from new products developed during the previous five years
- A strong belief in the advantages of being as broadly-based as possible and leveraging diversity both as a means of managing risk and as a platform for innovation
- Keeping a balance between the three major segments of the business: medical devices and diagnostics, pharmaceuticals and consumer products
- A highly decentralized management structure including subsidiaries for each market, to give managers maximum autonomy in relating to customers, seeking new opportunities and driving innovation processes

Dell Computer is another excellent example of the growing emphasis on customer-oriented innovation. By 2000 it had achieved top position in the PC market over established brands such as IBM, HP and Compaq. Dell's success resulted from a radical reinvention of the value chain and the creation of an unbeatable business model based upon lower costs and better service. Focussing on the mass market and specializing in a narrow range of products allows the company to tighten the value chain and outsource many functions to a series of well-integrated partners. The concept of dealing directly with customers on the Web gave Dell control over inventory, leverage over partners and a unique capacity to respond to, anticipate and learn from the needs, priorities and preferences of individual customers. As is often the case, Dell's corporate vision and business model originated in the foresight, passion and drive of its founder and CEO, Michael Dell. From a position of cost leadership, Dell has branded a formula which is almost unassailable. It includes an exceptional range of optional added value services for the customer, a lean and low-cost organization structure, just-in-time inventory system and a continuous market research database.

## **Resource Capability, Organizational Effectiveness and Added Value**

As the J&J and Dell examples demonstrated, the challenge for entrepreneurial business leaders and managers is to convert the organization's resource *capabilities* into *core competencies* (see Exhibit 1). The former is potential, the latter is reality. Converting capabilities into core competencies requires strong, disciplined leadership, unwavering

focus on customer's current and future, and an integrated approach to staff development, team-building and values reinforcement.

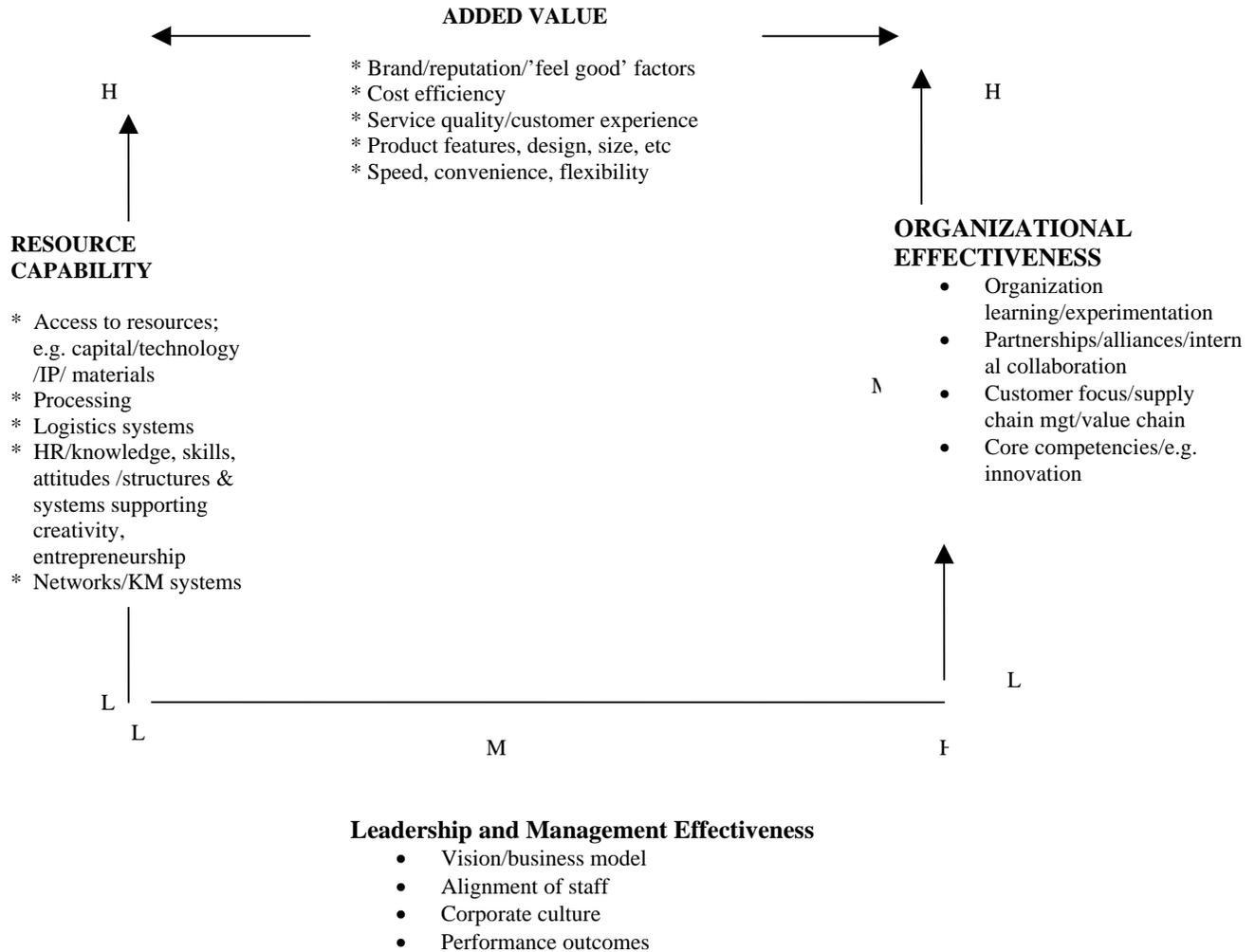


FIG. 1:CORPORATE INNOVATION AUDIT

Organizational capabilities and core competencies are the tools for implementing the business model and creating the added value which underpins the organization's success in the market place. They are indispensable assets for thriving and surviving in a highly turbulent, unpredictable and competitive environment. Products can easily be copied and are often superseded but competencies are more enduring. Without the ability to draw constantly upon a unique set of strategic resources and transform them quickly and distinctively into new and compelling value propositions for customers, the organization will be overtaken by its competitors or, more likely, in the case of Nokia and Motorola, by a company from an entirely different industry.

Even front-rank technology leaders such as IBM have problems converting advanced technology into effective customer value propositions, usually because they underestimate the management aspects of the task. Thus, for example, when IBM set out to improve its service delivery to some of its distributors, there were unexpected

pockets of internal resistance and fine-tuning delays in establishing an efficient business-to-business (B-to-B) system. The project turned out to be a classic example of the challenge of change management. Following a mounting barrage of customer complaints, it took the passion and persuasion of an influential crusader to get the B-to-B option on the management agenda. After creating a strong sense of urgency and commitment in principle to introduce a new system, it was still necessary to convince a number of senior managers to come on board and agree to the strategy. Considerable time elapsed before it was judged appropriate to communicate the new vision to staff. A number of experiments and trials were then conducted, staff training programs were designed and progress was widely communicated. It took several years of adjustment and learning to finally win full support and realize the projected benefits of the change (McAfee, 2005, pp.81-83).

Relating the audit framework to the B-to-B innovation under discussion (see Exhibit 1) clearly indicates that, despite IBM's very considerable resource capability, especially in technology and knowledge management, the major obstacles to change were in the negative attributes of some staff and the difficulty of winning the cooperation needed to design an integrated logistics system. It required determined and patient leadership to align staff to the new vision and put in place the culture of cooperation, teamwork and trust, which was the key to establishing an effective B-to-B process. It was only at this point that it was possible to polish, consolidate and realize the essential core competencies around service quality and speed in delivery as the means for achieving the desired performance outcomes. As this case demonstrates, a critical success factor in technology transfer is the closeness of the relationship, the depth of the mutual understanding and the strength of the commitment of the parties involved.

## **The Service Revolution and the Innovation Gap**

The imperative for stronger customer focus is matched by the extremely rapid growth of the service sector of the economy. Although services now account for well over 60% of the total economic activity, employment and value added of most developed countries, compared with manufacturing, which has fallen below 20%, manufacturing still tends to command much of the attention of policy-makers and university researchers (see *The Service Economy*, 2000, pp.3-4, 37-38). Globalization, deregulation and the IT revolution have done much to accelerate the growth of services by opening up new business opportunities and management challenges. However, traditional assumptions about the nature of innovation have lingered and therefore restricted the flow of creative effort and investment into the service sector. As early as the 1980s, some scholars foresaw the radical shift towards knowledge-based, service oriented economies and the need to broaden the definition of innovation beyond the realms of science and technology. There were also calls to open up the concepts of technology transfer which had grown out of the old research and development paradigm. An Australian Government report pointed out, towards the end of the decade, that the time had come for extending the transfer process to embrace all kinds of *knowledge* and not just technology. It was argued that 'innovation is centrally an organizational and managerial issue' and therefore 'organizational and managerial innovation are as vital as technical innovation (see Exhibit 1) (Centre for Technology and Social Change, 1988, pp.78-79).

From the mid-1970s onwards the so-called postmodern era has coincided with the impact of globalization, computer technology and mass education and has reflected increasingly the values of democratic freedom, cultural diversity and personal choice. During the preceding half century or so, industrial progress bred a high level of certainty about the ability of humans to control nature, unlock the secrets of the universe and solve virtually any problem through the application of scientific knowledge. Indeed, knowledge was equated with science and this was underlined by the priority given to scientific, medical and technological research by universities around the world. Universities are inherently conservative institutions and many traditional structures and assumptions have been refined and even reinforced by traditional patterns of funding and recruitment. This has certainly been the case with university research which continues to be both elitist in approach and poor in quality. Although the pressure of student demand has led to radical changes in university course profiles over the past thirty years, the research establishment has been much more rigid. The academic concept of what constitutes invention and innovation, for example, has adapted to the wider social and economic changes very slowly and with great reluctance. However, in the community, and especially in the market place, the triumph of postmodernism is everywhere. The transfer of

power from manufacturers to consumers is evident in the plethora of customized choices available in virtually all aspects of life from religion to sports shoes and from cable TV to toothbrushes. In a world where innovation is determined by the customer rather than the scientist, the creation of Barbie Dolls, Mars Bar ice creams, and business class air travel would rank among the more significant innovations of the postmodern era in terms of generating new added value, yet no university research institute would have an interest, let alone the capability, to play an active in reinventing ordinary products and services such as these.

The old technology transfer concept and the associated concept of technology diffusion perpetuated by government and university research establishments embody an assumption of an ideal two-step relationship between the 'pure' research conducted by research institutions and the commercialization role of business enterprises (see evidence of this in *Unlocking the Future*. 2000). They also tend to ignore the service dimension of innovation and the role of entrepreneurial management in the implementation process (Drucker. 1986, p.109). With the potential scope for innovation limited only by managerial creativity and organizational capability, this mechanical mindset is obviously an anachronism. The more innovation comes to be seen as an infinite potential for creating new or added value, from the *customer's* as opposed to the researcher's or manager's perspective, the more obvious it becomes that research institutions need to give more attention to value chain structures, processes and competencies. Of course, this is not to suggest that government and university research institutes will not continue to have a major responsibility for the sort of curiosity-led research that leads occasionally to great scientific, medical and technological breakthroughs. However, a good case can be made for conducting this research as part of a diversified network of collaborators rather than in the isolation of an ivory tower workshop or laboratory (Christensen. 2004, pp.311-314). Furthermore, in funding this research, much more qualitative selectivity is required, not only to prevent the proliferation of second rate, low impact publications and conference presentations, but also to allow greater priority for collaborative, value-adding applied research.

A recent investigation in Britain concluded that many areas of the business community are still reticent, if not reluctant, to initiate research partnerships with universities. As is the case in Australia, most business-university research partnerships are initiated by the universities and are heavily subsidized by government. In seeking to achieve a better balance between research push and market pull, the British review proposed a number of measures to bring about a deeper level of *institutional* engagement in joint innovation projects than is typically found in existing cooperative research centers. These included funding support for Knowledge Transfer Partnerships based on highly strategic projects and managed by high caliber graduates, and encouragement for a much more extensive flow of senior personnel between business and universities and vice versa (Lambert. 2003, see sections 2.48, 2.49, 6.2).

## **Innovative Entrepreneurs**

In the face of mounting government and community pressure to make research funding more accountable and to better demonstrate value-adding outcomes, some senior academics are resisting these demands and have revived the old debate about the appropriate balance between curiosity-driven and profit-driven research. For example, Professor Vicki Sara, the former chair of the Australian Research Council, has argued that 'the pressure on academics to turn a quick profit from research posed a serious threat to future innovation'. This statement is clearly an exaggeration. While it is true that profits generated by university research are disappointingly low, the most serious 'threat to future innovation' is not the issue of profit but quality and the blatant dissipation of research funding on a myriad of low-quality research projects, generated largely as self-defense against the 'publish or perish' culture which is rampant in many universities to-day. However, Professor Sara's most surprising comment was her reference to the bionic ear, which she cites as a classic example of curiosity-driven invention, which 'would not have been possible without innovative research' (Yaman. 2005).

Notwithstanding the fact that he is an academic, Professor Clark was, and remains, a classic entrepreneur. The two roles are not incompatible. Indeed, many distinguished professors, while not involved in commercial enterprise directly, still manage to operate entrepreneurially by virtue of the way in which they promote their disciplines, concepts and courses and attract resources for their various projects. In the case of Professor Clark, there

is little evidence that he was reclusive inventor, beavering away in splendid isolation, waiting for serendipity to occur. On the contrary, quite early in his career he developed the vision, or least a working hypothesis, of a bionic ear implant. For over a decade he persevered in the face of numerous financial and technological obstacles. Testing, experimenting, crusading, fund-raising, coalition-building and lobbying, like any other single-minded pioneering entrepreneur Clark survived many crises and set-backs. Even often the first bionic ear was implanted in 1978; it took another 20 years or so to actually get it into industrial production and for it to be distributed internationally. Very gradually he built upon the necessary resource capability and organizational effectiveness to realize his strategic vision and establish an innovative business enterprise with a potentially world-class image and reputation (see Exhibit 1). Today, the Bionic Ear Institute, based in Melbourne, is the central node in an extensive network of research institutes, hospitals, universities, companies and support groups, which include service organizations such as Lions, Rotary and Apex. In short, Clark is both an innovator and an entrepreneur.

Quite apart from increasing the social and economic value of university research, greater opportunities for regular interaction between academic researchers and senior members of business, government and community organizations are also likely to serve the cause of basic research, not simply by opening up unexpected avenues for additional funding, but also, and more importantly, by increasing the diversity of research stimuli and enhancing the prospects for random conceptual fusion. For Australia, this is an urgent priority. The case of Australia is unusual in that, although there is a relatively high level of entrepreneurial activity, it tends to be neither innovative nor research-based. Such a conclusion is consistent with the findings of a major international comparative survey 'describing and analyzing entrepreneurial processes within a range of countries' (ACS *et.al.* p.11).

According to the Global Entrepreneurship Monitor, on average only about 3 percent of all new business start-ups have the potential to be 'high potential' innovative enterprises generating new jobs, new products and new exports. Although Australia ranks above the average of the countries surveyed, much of its entrepreneurial activity appears to be 'driven more by high growth in market opportunities for existing services, and less so by the introduction of new services or innovative products' (ACS *et.al.*, pp.17, 23). An extremely high proportion of Australia's economic activity, employment profile and export growth is in the service sector, but this emphasis is not reflected in the research priorities of most universities. Australia's research establishment is dominated by academics with a science, medical or technology background. The fields of business, economics and the social sciences are very much under-represented by comparison. It will not be easy to reverse this pattern. The experience of Silicon Valley, Bangalore, Cambridge in England and Tsinchu in Taiwan, would seem to indicate that the intensive clustering of knowledge-based industries and research institutions is the most effective strategy for stimulating entrepreneurship that is both innovation-oriented and high value-adding and includes both advanced technology products and sophisticated professional services. The common characteristic of successful knowledge precincts, which distinguishes them from most science parts and research institutes, is that they are irresistible magnets for creative people, ideas and capital (Hamel. 2000, p.290).

Building on the findings of the Lambert Review, it is important that governments divert more of their research funding to strategic innovation projects that are initiated, or at least strongly supported, by the senior management of companies working with, or intending to work with, neighbouring universities. There is little point in directing more research funds to universities without increasing the 'absorptive capacity' of the firms they could potentially assist. An impressive body of research now exists to show that the level of a firm's internal research and development investment is a 'valid measure' of its ability to extract relevant knowledge from collaboration with university research institutes. Given that in Australia, the level of business expenditure on research and development is relatively low and certainly much lower than that extended by government (Maiden. 2005), there is a strong case for government to create incentives to reverse this anomaly, possibly adopting those recommended by Lambert in Britain (Yencken and Gillin. 2003, *passim*).

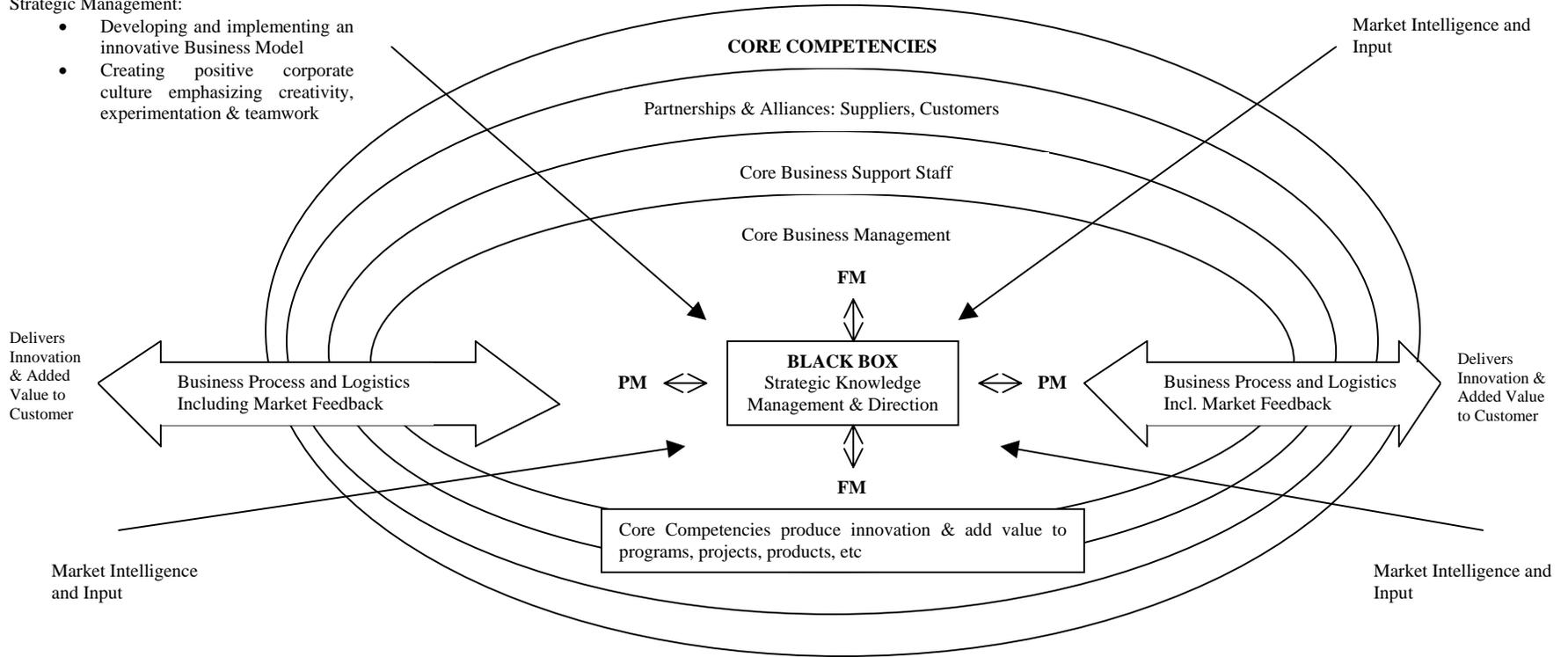
## **INOVACC: The Learning Organization**

Just as the environment has changed the strategic imperatives confronting organizations, it has also forced organizations to review their structural architecture in order to place much greater emphasis upon leveraging

networks, building partnerships, obtaining information creating knowledge and learning new competencies. Drawing on insights from the case studies previously discussed. INOVACC (See Exhibit 2) portrays the organization as an innovation engine rather than as a conventional pyramid of functional, geographic and product units. As an 'interactive network of value-adding core competencies', INOVACC is a dynamic amoeba, constantly transforming itself, open to the world, going *out* to the world, more resembling a series of integrated oval-shaped concentric 'circles' than any other form. Designed to optimize its relationship with the environment and connect with all its stakeholders, this new model is a value-adding machine in perpetual motion. Driven by an intelligent business brain (a kind of strategic 'black-box'), INOVACC is a new organizational model based upon unique core competencies, which drive customer-centered business processes and are coordinated by project/product teams. The project/product teams are multi-disciplinary, totally customer-focused and constantly drawing on wider networks of potential knowledge and organizational learning.

Strategic Management:

- Developing and implementing an innovative Business Model
- Creating positive corporate culture emphasizing creativity, experimentation & teamwork



The **Black Box** is the top management team operating as the centre of learning, the 'Intelligent Business core' or 'strategic apex' responsible for Strategy, Knowledge Management and Learning related to satisfying the needs of present *and* future customers (business concept innovation).

The **Core Business Management** includes both functional (FM) and project managers (PM).

The **Business Process** or 'value chain' converts strategies into core competencies and added value to the customer (= competitive advantage) and is led by a senior project manager

*Adapted from Knowledge Management to Learning Culture*

FIG. 2: THE NEW MODEL: INOVACC

The purpose of the Black-Box is to provide strategic leadership: conceptualizing, communicating, coordinating and developing. The most important roles of top management are to define the mission, align people to the vision and values inherent in the pursuit of this mission and to inspire and empower them to make it happen. In its essence it is an integrated process of teaching, learning and creating, which eventually becomes a pervasive culture, shared and practiced by all of the organization's stakeholders. Flexibility and adaptability are obvious distinguishing features of INOVACC. The project/product teams are constantly seeking to better align themselves with existing and potential customer bases. As part of the same process, they are also vigorously seeking out and forming new creative ideas and networks to increase their knowledge and ability to serve future markets better. It is a dynamic not a static exercise, based upon *action* rather than academic learning. Raw data, technical information and business knowledge are quickly absorbed into the organization's individual and collective learning experiences in a culture which is led by, and characterized by, people who are committed to competency-building, experimentation and living in the future. In all of this, the senior managers, in their Black Box capacity, illuminate and uncover the way forward. Although they could be described as teachers, they should not be thought of as traditional classroom teachers. Instead, their role is to stimulate, guide, mentor, influence and empower but, above all, to be tireless in their efforts to provide access to knowledge and new learning opportunities. It will not be easy to recruit managerial leaders like this from among the ranks of typical fast-track functional managers with degrees from traditional business schools. These are not jobs for people whose ambition exceeds their wisdom, whose immaturity preoccupies them with power, status and self-promotion and whose careers have been shaped by cleverly climbing the organizational hierarchy and who are primarily motivated by money. Finding the right people in the first place is the biggest challenge confronting organizations to-day; the second biggest challenge is to keep developing their leadership potential (Drucker. 1986, pp.105-109).

## **Towards a Learning Culture**

INOVACC is designed to facilitate the growth of a learning culture. A strong learning culture is characterized by four equally important and inter-dependent features:

- A top management team with highly developed leadership skills
- The strategic architecture for simultaneously thinking about the future, reflecting on the past, learning from the environment and nurturing creativity
- A highly-developed capability for locating and working with complementary value-adding partners
- Continuous investment in building core competencies by leveraging the organization's knowledge and competency base

(Milton-Smith. 2003, pp. 5-7)

Not surprisingly, life-long learning is a driving philosophy in learning organizations. It applies with equal force at every level. At the corporate level there is a deep understanding of the need for constant re-invention and transformation; even *Fortune 500* companies – the biggest and best in the world – only have a life expectancy of less than 40 years. At the corporate level there is a constant need to reinvent the business model and to build and leverage organizational competencies in order to keep creating innovative new sources of value and at the individual level, personal growth and mastery are seen as 'an essential cornerstone of the learning organization'. As Senge has pointed out, organizations acquire their institutional learning and core competencies through the accumulation and transfer of individual and team learning. It is therefore incumbent upon top managers in their mentoring capacity, to initiate developmental learning projects on a continuing basis to stimulate creative thinking and support innovation (Senge. 1992, p.141).

## **Putting Creativity into the Innovation Equation**

Like Silicon Valley, Cambridge, Bangalore and Hsinchu, Hollywood is another excellent example of a business model that is both entrepreneurial and innovative. It not only stimulates and sponsors an endless stream of original ideas, it has also developed successful processes for commercializing them. As in any market, some films succeed

and others fail; some successful films are variations on a theme, and just occasionally there is one which goes in new directions and represents a breakthrough. The novelist Amy Tan has given a penetrating insider's view of the period in the early 1990's when the Disney Studio made a film based on her novel *The Joy Luck Club*. Despite her deep reservations and concern for creative integrity she found the project to be a surprisingly positive experience.

Tan underlines the power of networks in Hollywood and the critical role of producers and directors in drawing upon their networks to obtain the resources needed for making a movie. She describes the gradual assembling of an extremely diverse, highly specialized group of people which eventually becomes a dedicated team, with a clear common vision and urgent sense of purpose. After the novel, the creative blueprint, had been converted (with the author's direct involvement) into a viable commercial script, and various creative and commercial tensions were resolved, contracts were signed and the film went into production. The project involved a screen-writer, producer, director, agents, lawyers, cinematographers, a large array of technical experts and, of course, the actors. Creativity and innovation were brought together in perfect harmony.

Tan was especially surprised by the 'enormous respect' with which she was treated and the 'creative control' she was given. She was also unprepared for the effective way in which the creative and commercial activities co-existed and harmonized:

.....There was never an organized agenda to meetings. People talked in broad imprecise terms. I thought it was code for something else, shorthand for all kinds of criteria. But now that I've been in the business for a while, I realize that people leave the precision points to the lawyers (Tan. 2003, p.184).

Throughout the making of the film, there was continuous cross-fertilization, crossing of boundaries and crossing of bridges. There was remarkable trust and goodwill. While the creative process may be slow and labored, novels often take many years to complete, once contracts are signed the innovation phase – the production of the film – is subject to very heavy time pressure. A film studio in action is a compelling demonstration of a well-managed knowledge cluster: constant dialogue, exploring ideas, seeking solutions, experimenting, negotiating and improvising, but always moving forward in order to meet deadlines, keep within budgets and achieve the common goal. In this innovation phase, the true test of the director's mettle is his skill in maintaining the delicate balance between the soft creative imperatives and the hard discipline of business reality and, in the case of *The Joy Luck Club*, it was a test Wayne Wang, 'the final arbiter on everything', passed with flying colors (Tan. 2003, p.188).

Creativity is the leadership challenge which most so-called leaders fail. Although managers and researchers alike relish the opportunity to sprinkle powerful words like 'creative' and 'innovative' in their speeches, mission statements, course outlines, public relations documents and reports, very few are prepared to expose themselves to the risk involved in *real* creativity and innovation. However, it must be conceded that very few managers know how to manage creativity in the first place. Search the content of business school offerings, check the indexes of text books – even those on entrepreneurship and innovation – and there is very little guidance, if any; plough through the avalanche of government reports aimed at making business more innovative and they scarcely touch on the subject of creativity and how to make it happen. Creativity is the missing ingredient in traditional strategic planning models. Although strategic plans will frequently make provision for creativity and innovation awards, conferences and festivals, they rarely propose the necessary changes in management ideas, roles, structures and accountabilities for building organizational capabilities in these areas (Johansson. 2004, pp.14-15, 67-69).

## **Concluding Remarks**

Overall, it must be concluded that the creative dimension in university research is much weaker than is generally acknowledged. Despite the fact that university research strategies are placing greater emphasis on increased staff participation and output, the main result seems to be an even greater flow of esoteric piecemeal knowledge seeking publication in an ever-expanding list of specialized academic journals. Piecemeal knowledge may be of interest to a limited number of people as knowledge for its own sake or as knowledge which, in combination, creates a new insight or better understanding. However, the true value of new knowledge is determined by society. Whether the customers are students of philosophy, consumers of packaged soup or mobile phone subscribers, the potential users and beneficiaries of the new knowledge are the final arbiters of how creative it is. This judgment is only possible

after the innovation process has been completed. Simply declaring an idea, concept or product to be ‘creative’ or ‘innovative’ in advance is not only premature but also misleading. That is why quantitative assessment of university research performance is dangerous, deceptive and self-defeating. Instead of perpetuating the old technology transfer mindset and counting the number of publications, patents, licences and spin-offs produced, a far more accurate measure of research quality would be an assessment of the value-adding knowledge, partnerships and mechanisms the researchers brought to bear in order to optimize the creative potential of their research, together with an evaluation of their roles in helping to manage the innovation process in order to realize this creative potential. While there will always be a place for curiosity-driven, self-directed – even self-indulgent – research, surely the time has come when universities need to give greater emphasis to increasing its direct social and economic impact.

It is also relevant to draw some conclusions on the broader issue of strategic planning. Traditional strategic planning techniques such as forecasting, scenario planning and SWOT analysis project the existing business model into the future, usually leading to plans for extending, adjusting and improving current operations. Incremental change, however, is no longer enough. Already it is a formula for standing still and increasingly it is a prescription for falling behind. Managers must be prepared to test and interrogate their business models to confirm their durability. When the boundaries of so-called ‘industries’ keep changing, who are the main competitors and what is the best competitive position? Is there really such a thing as sustainable advantage apart from an iconic brand or reputation? The real strategic challenge now is a creative one because the business environment is so fluid and unpredictable. In such a context there is no substitute for having deep insight into trends, patterns and uncertainties in the market and into the world that shapes it, combined with the necessary foresight to anticipate where these variables might lead and what opportunities they could open up. However, without the ability to imagine a future, drawing upon this analysis, where the enterprise, in the minds of customers, is in a class of its own, there will be no strategic focus for inspiring stakeholders, investing in resources, or building capabilities.

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# Learning in International Strategic Alliances- Integration of Research Paradoxes

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## Abstract

The “Learning Organization” is firmly in management lexicon. Rapid globalization makes cross-national strategic alliances between “learning” organizations increasingly important to understand as global acculturation is still a distant promise. Integration of contradictory research regarding the impact of national cultural distance on inter-organizational learning outcomes is suggested through a broad research framework.

## Organizational Learning

### The Importance of Organizational Learning

Over the past few decades the world economy has experienced an unprecedented transformation. The convergence of several trends, including global proliferation of technology, reorganization of economic boundaries, intensified global competition and competition and more knowledgeable, technologically-enabled consumers with higher expectations, have profoundly altered managers’ notions about the firm, markets, and competition. Product and process life cycles have become significantly shorter, eroding product-based advantages and forcing firms to develop continuous streams of innovation.

The concept of the ‘learning organization’ is gaining currency amongst large organizations as they attempt to develop structures and systems which are more adaptable and responsive to these changes. Learning is also increasingly seen to have broad analytical value as illustrated by the breadth of academic disciplines using it (Dodgson, 1993). Learning is a dynamic concept, and its use in theory emphasizes the continually changing nature of organizations and it is also an integrative concept that can unify various levels of analysis: individual, group, corporate, which is particularly helpful in reviewing the cooperative and community nature of organizations. (Dodgson, 1993)

Organizational learning is seen to allow for development of organizational design and renewal that provides durable and perhaps the most unimitatable type of competitive advantage (Almeida et al, 2002; Doz, 1996; Epple, Argote, and Devadas, 1991). The increasing need for organizational renewal is also seen to place additional demands on a theory of organizational learning (Crossan, Lane and White 1999).

### The Nature of Organizational Learning

Organizational learning has existed in our lexicon at least since Cangelosi and Dill (1965) discussed the topic nearly 40 years ago. Lately, its popularity has grown dramatically yet little convergence or consensus on what is meant by the term, or its basic nature, has emerged (Crossan, Lane and White, 1999).

The concept of organizational learning is complex. The first issue worth citing is that an organization can only learn through its members as “all learning takes place inside individual human heads” (Simon, 1991). Gardner et al (2002) and others in the cognitive learning school find the human brain has an internal structure that it continuously updates and alters as new information is received, processed, and stored. Everyone has a different way to handle the information they receive and process. Individual separate intelligences; linguistic, logical-mathematical, spatial, musical, bodily, interpersonal, intrapersonal and naturalistic are proposed by Gardner (2002) and organizational learning is then seen as capable only through people and the synergy of people and their separate intelligences in an organization. However, as Tsang (2002) muses, it would be simplistic to think that organizational learning is the sum of each member’s learning. When an orchestra learns to play a new symphony, every member has to learn his or her part. The performance of the symphony, which is the product of learning, is always a group activity and cannot be meaningfully reducible to the playing of the different parts by the members.

This independent character of organizational learning is elaborated by Hedberg (1981) in describing the concept of organizational memory:

*“Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and beliefs over time, organizations develop world views and ideologies. Members come and go, and leadership changes, but organizations’ memories preserve certain behaviors, mental maps, norms, and values over time.”*

Shrivastava (1981) suggests that: “Organizational learning refers to the process by which the organizational knowledge base is developed and shaped.” The term “organizational knowledge base” is analogous to organizational memory referred to by Hedberg (1981) above. Considering that individuals are agents of organizational learning, a link between individual and organizational learning has to be established.

Crossan, Lane and White (1999) - (Table 1) aver that organizational learning is multilevel: individual, group, and organization and that 3 levels of organizational learning are linked by social and psychological processes: intuiting, interpreting, integrating, and institutionalizing (4 I’s).

**Learning/Renewal in Organizations: Four Processes Through Three Levels**

Level	Process	Inputs/Outcomes
Individual	Intuiting	Experiences Images Metaphors
	Interpreting	Language Cognitive map Conversation/dialogue
Group	Integrating	Shared understandings Mutual adjustment Interactive systems
Organization	Institutionalizing	Routines Diagnostic systems Rules and procedures

TABLE 1: CROSSAN, LANE AND WHITE (1999)

The 4 I’s are related in feed-forward and feedback processes across the levels. Throughout the processes, the interactive relationship between cognition and action is critical; one cannot be divorced from the other.

Based on the above definition, learning by a member of an organization has to be shared by other members and be institutionalized before the learning is part of the organizational knowledge base. An organizational knowledge base can be developed and shaped in a number of ways. An important way is to acquire knowledge from outside of the organization through a variety of inter-organizational structures including the strategic alliance.

## Inter-Organizational Learning

### The Importance of Inter-organizational Learning

Examining how learning occurs between organizations is important, not only because of the increased globalization of economic activities but also because the field of organizational learning (OL) itself demands that future research efforts concentrate on how learning processes cross boundaries and occur at inter-organizational or population levels (Easterby-Smith, Crossan and Nicolini,2000; Levinson and Asahi-1995).

### The Nature of Inter-organizational Learning

As with all learning, organizational learning has a down side. Just as with humans, learning structures boundaries and limitations – it “closes the box”. Managers recognize that it is increasingly difficult to generate enough

knowledge independently to compete successfully in the current knowledge-rich environment and therefore they increasingly look outside the organization.

Further support for the assertion that inter-organizational relationships provide an ideal platform for learning is found in the literature on biotechnology and inter-organizational networks. In a seminal piece on networks and learning, Powell, Koput, and Smith-Doerr (1996) wrote, "Knowledge creation occurs in the context of a community, one that is fluid and evolving rather than tightly bound or static. The canonical formal organization with its bureaucratic rigidities is a poor vehicle for learning. Sources of innovation do not reside exclusively inside firms; instead they are commonly found in the interstices between firms, universities, research laboratories, suppliers and customers.

Tsang (1999) finds that the processes through which organizations acquire information or knowledge that are also particularly relevant to understanding inter-organizational learning are experiential learning and vicarious learning. Vicarious learning is a pre-planned attempt to learn about strategies, management practices, and especially technologies of other organizations (Tsang, 1999). Badaracco (1991) classifies knowledge into two types, migratory and embedded. A major objective of vicarious learning in the context of strategic alliance is to absorb deeply embedded knowledge from a partner (Hamel, 1991).

Osland and Yaprak (1995) specify two oft used vicarious learning strategies: imitation and grafting. Traditionally, imitation has occurred through corporate intelligence and other forms of environmental scanning. "Follow the leader" strategies can be an imitative result. Grafting is used to explain how organizations increase their store of knowledge by formally acquiring another firm or by developing a long-term alliance with another organization that possesses information not previously available within the organization itself. Licensing products and processes would also fit into this type of learning. Learning through grafting is often more complete than learning through imitation though it does not necessarily create innovative new knowledge that will provide a durable competitive advantage.

Experiential learning (Tsang, 1999), on the other hand, refers to the case where organizations acquire their knowledge through direct experience. An important feature of experiential learning is that it may not be intentional. As a matter of fact, many of our habits are learned unconsciously. Similarly, the day-to-day adaptation of an organization to changes in the internal and external environments is a consequence of a gradual, but often unintentional, learning process.

## **International Strategic Alliances, Cultural Distance and Inter-Alliance Learning**

### **International Strategic Alliances**

A strategic alliance is defined as a long-term cooperative arrangement between two or more independent firms that engage in business activities for mutual economic gain. International alliances are cooperative arrangements, with cross-border flows and linkages that utilize resources from autonomous organizations headquartered in separate countries (Parkhe, 1991). As markets continue to become global and firms become more international, cross-border alliances, increasingly provide firms with opportunities to rapidly expand geographical market participation, create economies of scale and critical mass, reduce risks, learn new skills and technologies, and facilitate effective resource sharing (Bleeke & Ernst, 1995; Harrigan, 1988; Slocum & Lei, 1992; Yip, 2003).

Amazingly, 61 percent of international alliances have been outright failures, or are limping along in some state of poor performance (Parkhe, 2001). This is often triggered by the inability of many partners--relative newcomers to voluntary cooperative relationships with foreign firms--to surmount their differences. Problems with alliance governance and desired learning outcomes can be particularly related to trust issues, learning asymmetries and particularly cultural differences in international strategic alliances (Tsang, 1999; Lane, Lubatkin and Florin, 2001; Doz, 1996).

### **National Cultural Distance**

When benchmarking the level of cultural distance between alliance partners it is important to distinguish between organizational cultural distance and national cultural distance, though clearly organizational culture is often related to the national origins of alliance partners. Terpstra and Yu (1988) listed language, culture, political systems, level

of education, and degree of industrial development among the important factors comprising “psychic distance”

Psychic distance was defined by Nordstrom and Vahlnes (1994) as “factors preventing or disturbing the flow of information between potential or actual suppliers and customers” and thus their metric seems appropriate as a proxy for national cultural distance for the purpose of study of national cultural effects on inter-organizational learning.

National cultural distance in alliances also highlights an obvious paradox. If the benefit of knowledge integration is in meshing the different specialized experience of different organizations--if two organizations have very similar experience there is no gain from integration and yet, if the organizations have entirely separate experience bases, then integration cannot occur beyond the most primitive level (Grant, 1996). This paradox frames the central research theme of this paper.

### The Learning Perspective of Alliance Formation

Aside from the explicit strategic and operational motives, learning in order to sustain a competitive edge in the marketplace serves as a primary motivation for the formation of strategic alliances. The learning perspective of alliance formation is one of a number of perspectives in the literature. The learning perspective is viewed as being a primarily behaviorally based (as opposed to an economically based) perspective (Barringer and Harrison, 2000-Fig 1).

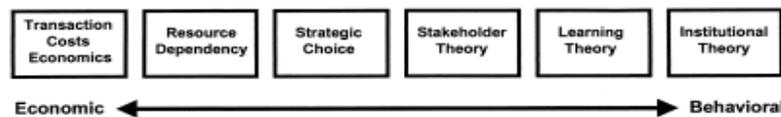


FIG. 1: THEORIES OF ALLIANCE FORMATION-BARRINGER AND HARRISON (2000)

In the inter-organizational relationship literature, one of the most widely cited motives for alliance formation is the acquisition of new technical skills or technological capabilities from partner firms (Hamel, 1991, Mody, 1993). As Hamel (1991) says, learning through internalization (acquiring skills to close the gap between partners) and sustainable learning help reapportion the value-creating core competencies in an alliance context, giving partners the ability to match or overtake their competition. Learning also reduces the prospect that firms may fall into “competency traps” or the inability to face novel competitive and market situations (Cohen and Levinthal, 1990; Levitt and March, 1988). Therefore, learning, be it related to technology transfer, acquiring skills, or for improving learning capability (“absorptive capability,” as Cohen and Levinthal coin it), is a critical consideration for firms.

Alliance partnerships grow over time, and learning occurs throughout the evolutionary process, however, the dynamics of learning and partner interactions are seen to continuously change over the course of time. Initial motivating conditions for exploring partnerships generate adaptive learning capacities in firms, and these lead to greater responsive abilities to meet new conditions encountered at each phase (Doz 1996, Lei, Slocum, and Pitts, 1997). Learning that takes place in strategic alliances occurs along several dimensions (environment, task, process, skills, goals) (Doz 1996). In fact, Iyer (2002) found that successful alliance projects were highly evolutionary and went through a sequence of interactive cycles of learning, reevaluation and readjustment. Failing projects, conversely, were highly inertial, with little learning, or divergent learning between cognitive understanding and behavioral adjustment, or frustrated expectations.

### National Cultural Distance and Learning in Alliances-The Transaction Cost/Knowledge Transfer View

Transaction costs theory (Williamson, 1991) focuses on how an organization should organize its boundary spanning activities so as to minimize the sum of its production and transaction costs. Transaction costs also vary, and include expenses associated with arranging, managing, and monitoring transactions across markets (Child & Faulkner, 1998; Kogut, 1988). An inter-organizational relationship, such as a strategic alliance is an alternative to a market or an organizational hierarchy.

In international strategic alliances, increased cultural distance is seen in the transaction cost view to create additional difficulties and challenges for managers who must spend more time on communication, design of compatible work routines, and development of common managerial approaches. Accordingly, a significant body of

conceptual research finds that the level of national cultural distance between alliance partners is negatively related to important facets of inter-organizational learning such as information flows (Lyles and Salk 1996), the process of knowledge management (Tiemessen et al. 1997), and knowledge transfer (Kogut and Singh 1988). Tiemessen et al. (1997) have warned that knowledge is not as mobile as it has often been assumed and Kogut and Singh (1988) also referred to the “inertness of knowledge.” Knowledge transfer has been seen to depend on how easily that knowledge can be transported, interpreted, and absorbed” (Hamel 1991). In this process, Simonin (1999, 2004) pointed to the need of considering the more subtle aspects of knowledge in this case marketing know-how - in particular its ambiguity, its resistance to clear communication, its embeddedness in context, and its idiosyncrasy.

All these studies are indicative of the existence of an important underlying latent construct, according to Simonin (1999, 2004), which he has termed “knowledge ambiguity”, averring that this construct needs to be explicitly recognized and integrated in research undertakings. Beyond the knowledge-holder’s desire to protect its know-how and the knowledge seeker’s prior experience with the knowledge base, cultural distance between partners is seen as an ambiguity raising impediment to the process of inter-organizational knowledge transfer. As the gap between the knowledge provider and seeker deepens, so does the level of “noise” surrounding the understanding and communication of valuable information (Simonin 1999, 2004)

#### **National Cultural Distance & Inter-organizational Learning- Double-Loop Learning View**

According to Osland and Yaprak (1995), however, the extant organizational learning literature appears to have failed to discover the synergistic learning potential of inter-organizational learning between partners of culturally distant national origins and the “research landscape” of this topic since 1995 does appear rather sparse. This is surprising since in cross-national collaboration one might expect better potential for synthesis of each of the partner’s skills, knowledge, and paradigms to create previously non-existent competencies, products, and strategies. Indeed, Ouchi and Bolton (1988) have demonstrated that international collaborative R&D has led to new product development that would not have been possible without such collaborations. As counterpoint to the resource dependence theory notion of national cultural distance having a negative impact on inter-organizational learning, due to greater inherent barriers in transferring knowledge, Parkhe (1991) and Kidd (1998) posit that cultural diversity between partners in international strategic alliances can potentially lead to higher levels of knowledge creation and knowledge based advantage. The NUMMI alliance (Phan and Peridis, 2000) for example, between GM and Toyota to create the Saturn Corporation is cited as one where unique methods and technologies were created through learning between two organizations from rather disparate national cultures. The learning applied to Saturn Corporation’s development was rather idiosyncratic in that it could not be applied to either partner’s core operations and yet it did create unique competitive advantages in the North American automobile market for a number of years. Clearly not all strategic alliances are designed to create a new business entity whose learning is not transferable to the alliance partners’ respective core businesses, but this example does illustrate well the competitive advantages that can be created through synergistic learning achieved between culturally diverse partners.

Tsang (1999) may provide some insight into the contradictions in this research topic through a preliminary typology of learning in international strategic alliances. He differentiates between tasks such as implementing technology transfer, managing the alliance per se and knowing about a new business environment which constitute what Tsang calls “learning from strategic alliance experience,” which he suggests requires an experiential learning process and “learning the other partner’s skills,” which he suggests entails a vicarious learning process. Therefore a venture that provides a novel and fruitful learning experience through cultural diversity may not, and need not, be an operation of great strategic importance to create a valuable knowledge resource. Though Tsang agrees with Parkhe (1991) and Kidd (1998) that cultural diversity in ISA’s can create higher levels of knowledge based advantage he also sees erosion of trust and development of competitive learning environments as being particularly negatively related to learning in highly culturally diverse strategic alliances.

Phan and Peridis (2000) extend the positive role of national diversity in knowledge creation by arguing that diversity and conflict need not be a negative influence on alliance success per se but can instead represent a key component in the learning process. They cite the generative or double loop learning process that is amplified in alliances between culturally diverse partners (Liedtka et al. 1997; Argyris and Schon 1996) , a process that does not necessarily create knowledge that already exists in each another’s knowledge base.

They further suggest that attempts to reduce partner conflict while beneficial to alliance stability in the short run, can block the double loop learning process triggered by such conflict. They also suggest a positive relationship between the level of partner diversity and double loop organizational learning to knowledge creation and that tension between cultural influences becomes a necessary condition for knowledge creation to occur.

## A Suggested Research Framework

### Resolution of the Paradox

Van De Ven and Poole (1989) suggest using action and structure framework in theory development to resolve research paradoxes that may be present in the extant literature. They suggest 4 possible approaches that were each assessed by the author as providing potential resolution of the paradox (Table 2).

**1. Accept the paradox and keep theories separable**

**2. Advance a new conception or paradigm**

*In both cases-possibly but no approach via structure and action apparent from literature-this deserves further study*

**3. Look at differences between organizational levels**

*Both perspectives clearly utilize inter-organizational learning rather than group or individual learning as unit of analysis*

**4. Look at temporal effects**

*Theory of Morphogenesis provides viable approach*

TABLE 2: RESOLUTION OF THE PARADOX USING VAN DE VEN AND POOLE (1989) FRAMEWORK

Parke (1991) and Shi (2000) among others have found that alliance duration is negatively related to national cultural distance and that there is a higher probability that culturally distant alliances will fail in the short to medium term. One possible reason is that at the early stage of a relationship, each alliance partner in a culturally distant alliance may experience a higher degree of ethnocentrism (Han, 1988) which may result initially in opportunistic behavior that precludes a long term relational commitment as well as a strong commitment to endure conflict which might support generative or double loop learning.

However, as the relationship matures, (if it survives initial conflict) exchange partners are likely to develop relational norms and have a better understanding of each other's competencies, goals and future expectations (Dwyer. et al., 1987). Lyles and Salk (1996) did not find significant main effects between cultural misunderstandings/differences and levels of knowledge acquisition in Hungarian joint ventures. These results are also consistent with Meschi et al's (1997) findings that: cultural differences in an international joint venture, regardless of their nature or intensity, will ultimately recede over time. Therefore the view of a "cultural learning curve" where knowledge ambiguity is seen as a pre-existing structural impediment that may initially relate negatively to inter-organizational learning seems plausible. Over time action can be viewed to influence structures and double-loop learning derived from inherent value conflict (Phan and Peridis, 2000) and may result in more idiosyncratic and valuable knowledge if the partners can survive the initial heightened levels of conflict. The process is illustrated in Table 3.

**Action and structure influence each other over time (i.e. I/O Learning in ISA's)**

1. **Pre-existing structures dominate**-*Inherent knowledge ambiguity and different values initially deter inter-organization learning(Simonin 1999)*

2. **Action articulates alternative arrangements.** -*Double Loop Learning Occurs? (or partnership more rapidly dissolves)*

3. **Structural Elaboration**-*Learning is institutionalized if alliance does not dissolve*

TABLE 3: THEORY OF MORPHOGENESIS, VAN DE VEN AND POOLE (1989) RE: LEARNING IN INTERNATIONAL STRATEGIC ALLIANCES

## Research Hypotheses

Simonin (1999) provides strong theoretical support for the construct of knowledge ambiguity being positively related to cultural distance and negatively to inter-organizational learning. This hypothesis remained unproven, however, as the 151 alliances studied averaged a seven-year life span. Simonin (1999) suggested that they may have passed a "threshold of cross-cultural myopia and belligerence prevalent in the early stage of collaboration." Therefore:

H1: Knowledge ambiguity will be positively related to national cultural distance but its valence and therefore its negative effect on inter-organizational learning will weaken over time if the strategic alliance does not dissolve in the short run.

Phan and Peridis (2000) suggest that double loop learning between alliance partners is a necessary but not sufficient condition for knowledge creation and that double loop learning is more likely when national cultural distance is high. They suggest that environments with values tension provide best opportunities for knowledge creation. The higher the values tension between partners the more likely new knowledge will be created. Therefore:

H2: Value conflict and thus double loop learning are positively related to national cultural distance.

A "mutual hostage" (Kogut and Singh 1988) or bilaterally dependent condition binds alliance partners to the relationship and increases the likelihood of mutual effort to attain shared alliance goals. Such mutual effort takes the form of actions that reduce the variances between partner expectations and objectives. For the purposes of knowledge, Phan and Peridis (2000) believe that mutual hostage situations are not conducive to double loop learning. For such contracts to be effective, the allowed variance in performance has to be relatively small because there is no monitoring provision for motives and values. Thus, mutual hostage contracts tend to 'pull the plug' prematurely when there is non-performance in the contract, leaving little room for the partners to mutually to explore the assumptions, organizational values and learning process. Therefore:

H3: Reciprocal dependencies are a moderating variable with a negative effect on double loop learning

Resource complementarity (Phan and Peridis, 2000) attenuates the difficulties inherent in managing a culturally disparate partnership because it reinforces the instrumentality, defined as the explicit goals, of the alliance. By focusing on the instrumentality the emotional dissonance generated by cultural and organizational conflict will be tempered by the promise of higher benefits from partnering. In effect, organizations can decide to be munificent in their assessment of partner non-performance and thus be prepared to engage in the kind of values exploration that leads to knowledge creation if the expected benefits are high. Therefore:

H4: Resource complementarity is a moderating variable with a positive effect on double loop learning

Meschi (1997) suggests that all cultural differences in an international joint venture, regardless of their nature or intensity, will ultimately recede over time and Ouchi and Bolton (1988) have demonstrated that international collaborative R&D has led to new product development that would not have been possible without such collaborations. Parkhe (1991) and Kidd (1998) posit that cultural diversity between partners in international strategic alliances can potentially lead to higher levels of knowledge creation and knowledge based advantage. Therefore:

H5: If no alliance dissolution occurs, national cultural distance (or psychic distance as a proxy) will in time be positively related to I/O learning.

The resultant theoretical model is depicted in Fig. 2.

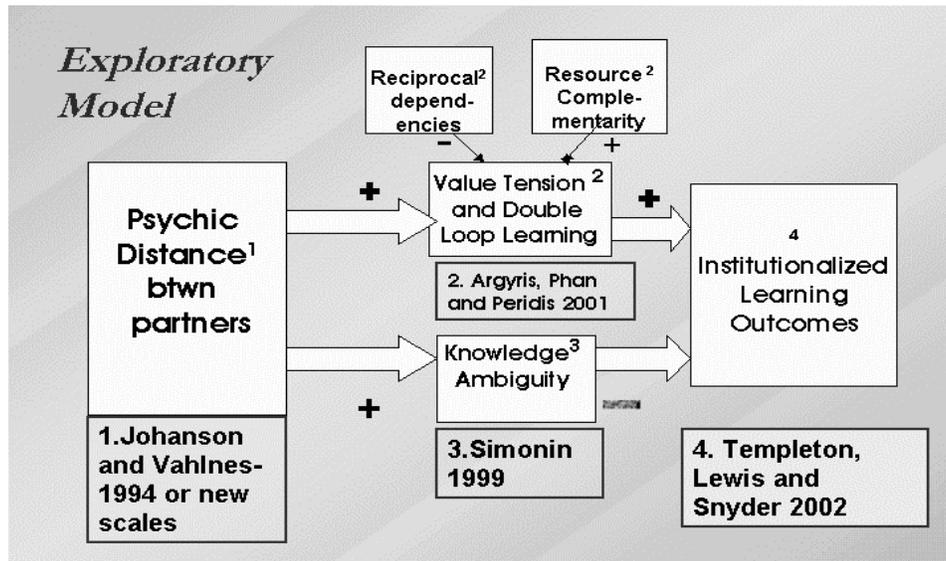


FIG. 2: EXPLORATORY MODEL

## Metrics

### Dependent Variable-Organizational Learning

According to Crossan, Lane and White (1999), as one moves from the individual level of intuiting/interpreting through group integrating to organizational institutionalizing, the process of learning is less fluid and incremental and becomes more staccato and disjointed. Generally, that which becomes institutionalized in organizations has received, at some point, a certain degree of consensus or shared understanding among the influential members of the organization. Changes in systems, structures, and routines occur relatively infrequently in organizations; as a result, although the underlying processes of intuiting, interpreting, and integrating are more fluid and continual, significant changes in the institutionalized organization typically are punctuated. However, even though the institutional changes may appear disjointed, the underlying learning processes of intuiting and interpreting at the individual and group levels that result in these changes may be more continuous. Accordingly although organization learning is by nature dynamic and characterized by feed forward and feed back loops it may be most appropriate to utilize institutionalized learning as a unit of analysis.

Olivera (2000), for example, relies upon the organizational level concept of institutionalized knowledge or memory to develop an empirical investigation of knowledge collection, storage and access in multi unit organizations and other researchers (Crossan, Lane and White 1999) have found this approach to be an acceptable one.

Based on a domain definition grounded in the literature, Templeton Lewis and Snyder (2002) attempted to develop an empirically reliable and valid measure of organizational learning. They integrate 2 methodological frame-works to develop an 8 factor, 28 item instruments for assessing OL derived from a sample of 119 firms. This scale is suggested as a metric to assess OL in the framework outlined to test the above mentioned research hypotheses. (Table 4)

- the extent to which organizational members are aware of the sources of key organizational information and its applicability to existing problem areas (*awareness*);
- the extent of communication and that exists between organizational members (*communication*);
- the comparison of process- and outcome-related performance to organizational goals (*performance assessment*);
- the development of experience, expertise, and skill among existing employees (*intellectual cultivation*);
- technology-related items pertaining to organizational responses to environmental change (*environmental adaptability*);
- the extent to which organizational members learn through social channels about organizational concerns (*social learning*);
- the extent to which the organization manages knowledge, skill, and other intellectual capital for long-term strategic gain (*intellectual capital management*); and
- the extent to which the organization capitalizes on the knowledge, practices, and internal capabilities of other organizations (*organizational grafting*).

TABLE 4: FACTORS WHICH MEASURE ORGANIZATIONAL LEARNING- TEMPLETON, LEWIS AND SNYDER (2002)

#### **Explanatory Variable-Value Conflict and Double Loop Learning**

Gardial, Woodruff and Flint (2002) results suggest that tension is related to organizational members desire to improve their situation by learning. Learning is a means of managing tension is similar to coping behaviors found in research on role stress (Keaveney and Nelson 1993). The learning described by participants in the Gardial, Woodruff and Flint (2002) study was often reflective of organizational learning as "generative learning," in which people in organizations question "long-held assumptions about [the organization's] mission, customers, capabilities, or strategies" (Slater and Narver 1995), This is analogous to the double loop learning created through values tension as described by Phan and Peridis (2000)

Gardial, Woodruff and Flint (2002) designed interviews to draw out autobiographical memories of personal experiences related to changes in what participants valued from suppliers including developing metrics of the incidence of value conflict and the resultant desire on the part of participants to learn. Although such memories may not depict a "true" representation of what actually happened, it is well established that they accurately represent the meaning of personal experiences (Brewer 1986; Conway 1990), are likely "representative of the underlying [memory] structure with respect to both content and organization" These interviews were supplemented, when possible, by observation of meetings with purchasing professionals inside participants' organizations, tours of facilities, and analyses of documents provided by participants to aid in construct development including a construct of double loop or generative learning. A similar ethnographic study is suggested to develop a construct of double loop or generative learning for the recommended research framework in this paper.

#### **Explanatory Variable-Cultural Distance**

Hofstede (1994) validated five independent dimensions of national culture differences. These ideas were first based on a large research project into national culture differences across subsidiaries of IBM in 64 countries in 1980. Hofstede or (Hofstede adjusted) measures are employed by most studies of cultural distance. Nordstrom and Vahlnes (1994) adjusted Hofstede measures via an expert panel to provide a more current measure and their measures of cultural distance could be employed pending the availability of more current measures shortly expected to be published in the Journal of Marketing (Laroche, 2003)

#### **Explanatory Variable-Knowledge Ambiguity**

Simonin's (1999) measures of knowledge ambiguity derived from national cultural differences included partner protectiveness, language differences, similarity of business practices and operational mechanisms and similarity of management style of partners. These validated scales could be used to measure knowledge ambiguity between alliance partners.

## **Proposed Sampling, Analysis and Validation**

### **Preliminary Stage**

Double loop learning, reciprocal dependencies and resource complementarity metrics could be validated through an ethnographic/ grounded theory approach via study of a single alliance between culturally diverse partners. Interviews would be supplemented by observation of meetings, tours of facilities, and analyses of documents provided by participants

### **Model Validation Stage**

The model could be potentially then validated through a survey of organizations involved in cross-national alliances of varying cultural distance via a longitudinal study (i.e. 12 -24 months) that would track organizational learning as per the metric described above supplemented with periodic survey research and interviews of key front line employees most involved in the alliance, from both organizations.

A sample of national origins of partners chosen to represent high, medium and low cultural distance based on adjusted Hofstede or newer measures might include respective national origins such as Canada-US, Canada-Sweden and Canada-China. The exploratory model could then be validated through multivariate and Structural Equation modeling techniques as well as such techniques as proportional hazard modeling to measure temporal effects.

### **Benefits of an Integrative Research Approach**

Benefits of an integrative research approach to address paradoxes of inter-organizational learning in the study of cross cultural alliances could include a better understand value of national culturally based conflict vs. stability in learning outcomes as well as guidance in partner selection based on gaining learning/ knowledge advantage. The research gaps remain numerous and important in this field as inter-organizational learning amongst alliance partners of different national origins is an increasingly important competitive advantage. Though we are in an era of rapid cultural convergence across the globe (Bird and Stevens, 2003), national cultural differences and how they can levered for competitive advantage in the learning organizations will likely remain important for many decades to come.

## **Limitations**

The limitations of this broad approach are numerous despite potential contributions to the extant literature. “Networked” alliances forms (Simonin 2003) between partners of more than two (often many) national origins are increasingly prevalent. Simonin (2003) for example explores how organizations learn from their networks of alliances and partners and proposes a model of alliances that constitutes an attempt to develop a meta-theory of collaborative learning, one that accounts for, and is meaningful to, all types of organization, all levels of learning and knowledge management, and for different collaborative foci. This framework does not address these different typologies.

Secondly, the model does not account for learning asymmetries (Tsang 2002, Lubatkin, Lane and Florin, 2001) which clearly are typically present between culturally distant alliance partners though this could be incorporated into further iterations of the model.

Thirdly, Hofstede’s cultural distance metrics are dated and need revalidating in an environment of globalization and convergence.(Shenkar, 2001) and in fact cultural distance may be a measure that is of less interest to researchers than that of acculturation (Tan Lin Boon, 2002), that is the phenomenon of emergent multinational or global cultures. New validated metrics will aid in better empiricism for all types of cross-cultural study, including this proposed framework.

Finally there is only recently been construct development of methods to measure double loop or generative learning in an organizational setting. This is clearly a critical piece of the puzzle in understanding cross-cultural learning between organizations.

## Conclusions

There is not consensus as to how national cultural distance between strategic alliance partners effects short and long term organizational learning outcomes. In fact the research is rather paradoxical. An integrative research frame work is suggested to attempt to resolve and rationalize conflicting views in the extant literature though a cross-disciplinary approach. There is a growing body of work, however, that suggests managers should consider the value of “loosely managed conflict” to generate unique and competitively advantageous learning from culturally distant alliance partners rather than focusing solely on the benefits of ease of knowledge transfer.

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# R&D Game and Innovation Timing under Uncertainty in Pharmaceutical Industry: An Application of Real Option

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## Abstract

Nowadays pharmaceutical R&D has been considered as a mixture of strategy and luck with the increasing difficulty of drug discovery. Among the various attempts to clarify the decision-making mechanism to give birth to more drugs, real option theory is widely accepted for its attention to managerial flexibility.

In this study, we discuss the possibility of the integration between real option theory and game theory at pharmaceutical R&D. As a simple model, we consider two competing firms which are pursuing R&D innovation in continuous time in a two-player market. They both face uncertainty in expecting their R&D outcomes. This time for comparison, we discuss two cases; one is the two firms making R&D decisions simultaneously and the other is one firm moving first. Unlike the common belief of first-mover advantage, even in a high-tech competitive scene as pharmaceutical R&D of this model, there exists a second-mover advantage that can be valued by a real option. We found with the increase of uncertainty, the second-mover advantage can become bigger within certain conditions.

## Introduction

The pharmaceutical industry has been experiencing an exciting times during the last two decades. Despite the widely expressed negative sentiments regarding pharmaceutical productivity, the new signs that innovation could yet win the day and bring a fresh wave of breakthrough drugs have activated the main pharmaceutical companies of the world to put their resource into a new round of pharmaceutical R&D race. With the cause and effect relationships of innovative process separated by decades, pharmaceutical industry is defined as the 'ultra slow' industry where the likelihood of epoch-making drugs been developed is considered as a mixture of strategy and luck (see, Schmid and Smith [2004]). The existing literates have put great emphasis on the managerial ability in ingeniously rearranging the resource for multi-drug-effect development (e.g. portfolio of projects) which renders the possibility of application of real option theory, and factors that influence pharmaceutical R&D productivity or R&D incentive such as impact of mergers & acquisitions (see, Koenig and Mezick, 2004), impact of price regulation (see, John A. Vernon, 2003) and of market size (see, Acemoglu and Linn, 2004). However, considering the dominating monopoly power of the leading drugs in specific drug effects and the extremely protected developing information flow, pharmaceutical industry has been turned into a typical field where strategies could not be discussed without attention to a R&D competition game background.

Does strategy make a difference when the success rate of outcome of a new drug is out of control and at the same time the reaction of the rivals is difficult to predict? This study is trying to give an answer by constructing a simple model linking pharmaceutical R&D game and real option theory. We consider two competing firms which are pursuing R&D innovation in continuous time in a two-player market. They both face uncertainty in expecting their R&D outcomes. In contrast to the previous research, the study takes the real option value of a pharmaceutical into consideration, which will change the expected value of the strategies the firms take and give a big impact on the equilibrium of the game. Then we discuss two cases under this circumstance for comparison: One is the two firms making R&D decisions simultaneously and the other is one firm moving first. We will observe under the new definition of game, how the innovation timing influences the decision-making in R&D, especially in the strategy-intensive pharmaceutical industry.

This paper is arranged as follows, in section 2, we describe the model in consideration of real option value of the projects in comparison with the existing game equilibrium, and apply our approach to the two innovation timing games to analyze the effects of second-mover advantage on the equilibrium innovation dynamics. In section

3, we fit the model into pharmaceutical R&D race to obtain the characteristics of innovation activity in this industry. Finally, we draw the conclusion.

## Model

### Two Firms Moving Simultaneously

We consider a two-player game: there are only two firms in a industry,  $i = A, B$ . Both firms are facing two choices of projects: X, Y, where X stands for a high-risk-high-return project and Y stands for a low-risk-low-return one. They can only choose one of them because of the budget restraint. The payoff matrix of A,B under this condition is as follows,

A \	B	X	Y
X		$a_1, b_1$	$a_2, b_2$
Y		$a_3, b_3$	$a_4, b_4$

FIG. 1

We can find it's wrong to conclude  $a_1 > a_4, b_1 > b_4$  because neither of the firms can be sure of its success in developing the new products. Project X has a high return but the possibility of failure during the development is also high. Project Y has a considerably low return but it's safe. Also, there is no information of what strategy the rival will take. Now let's introduce the success rate for discussion.

Assume the success rate of project X is 5%, and the possible return (extracting the costs) is \$200 million; the success rate of project Y is 80%, and the possible return is \$10 million. The technologies developed are perfectly protected within patent period, which assures no spillover or imitation happen. Let's see what the matrix will be with the expected value. (For easier discussion, we omit the discount factor since the all the values are discounted at the same rate.)

A \	B	X	Y
X		5,5	10,8
Y		8,10	4,4

FIG. 2

On the occasion A and B choose project X or project Y simultaneously, the total markets are split into two halves ( $200 \cdot 5\%/2$ ). The Nash equilibrium are two: (X, Y) and (Y,X). Under mixed strategy, the equilibrium is (4/9,4/9). And the optimal expected payoff is (20/3, 20/3).

Now let's discuss the development in two stages. We assume there is an important stage in development of X, where the result is vital to the success rate of next stage and is determinative in making the go and no-go decision. We assume the result in stage 1 raises the success rate to 50%, for example. The project value  $v$  at the point can be calculated as  $100k$  ( $200 \cdot 50\% \cdot k$ ), where  $k = 1/(1+r)^{T-t}$  representing the time discount rate. The time span of stage 2 is  $t$ , and the full length of development is T.  $r$  is the risk-free interest rate.

Considering the additional value originated from the successful development, we can define a real option representing the future opportunity benefiting from the current result. We get,

$$C = \text{Max}(V - v/k, 0) = \text{Max}(V - 100, 0) \quad (1)$$

$v/k = 100$  is strike price and represents the return of licensing out the half-finished outcome in case the development fails in stage 2 or the project value falls below the strike price. The matrix of expected return in stage 1 can be expressed by,

A \ B	X	Y
X	50k, 50k	100k + Ck, 8k
Y	8k, 100k + Ck	4k, 4k

FIG. 3: MATRIX OF EXPECTED RETURN IN STAGE 1

Also, we eliminate the discount rate to get the following matrix.

A \ B	X	Y
X	50, 50	100+C, 8
Y	8, 100+C	4, 4

FIG. 4: MATRIX OF EXPECTED RETURN IN STAGE 1 (SIMPLIFIED)

Under mixed strategy, the possibility of A choosing project is  $p$ , while the possibility for B to choose X is expressed by  $q$ ,

$$\begin{aligned} \text{The expected return of A} &= 50pq + (100+C)p(1-q) + 8(1-p)q + 4(1-p)(1-q) \\ &= (-54-C)pq + (96+C)p + 4q + 4 \end{aligned}$$

the value  $p$  that maximizing the equation is  $p = 4/(54+C)$

The same,  $q = 4/(54+C)$

The condition of A and B is totally asymmetric, so they have the same expected return curve only concerned with project value in expiry ( $V$ ) despite of the move of the rival.

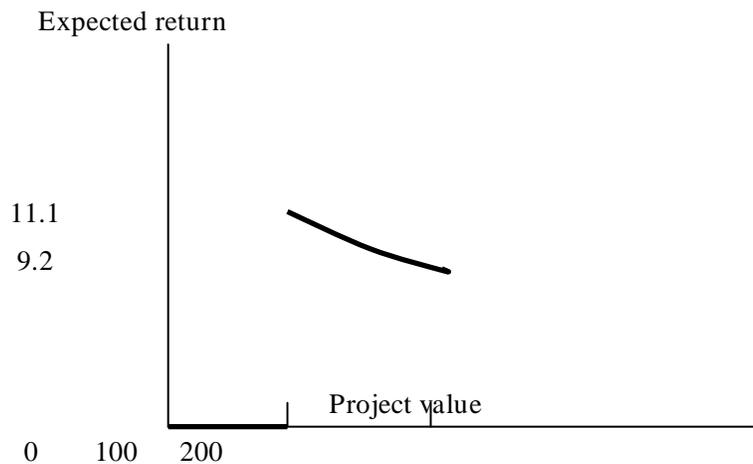


FIG. 5: THE EXPECTED RETURN CURVE UNDER SIMULTANEOUS GAME

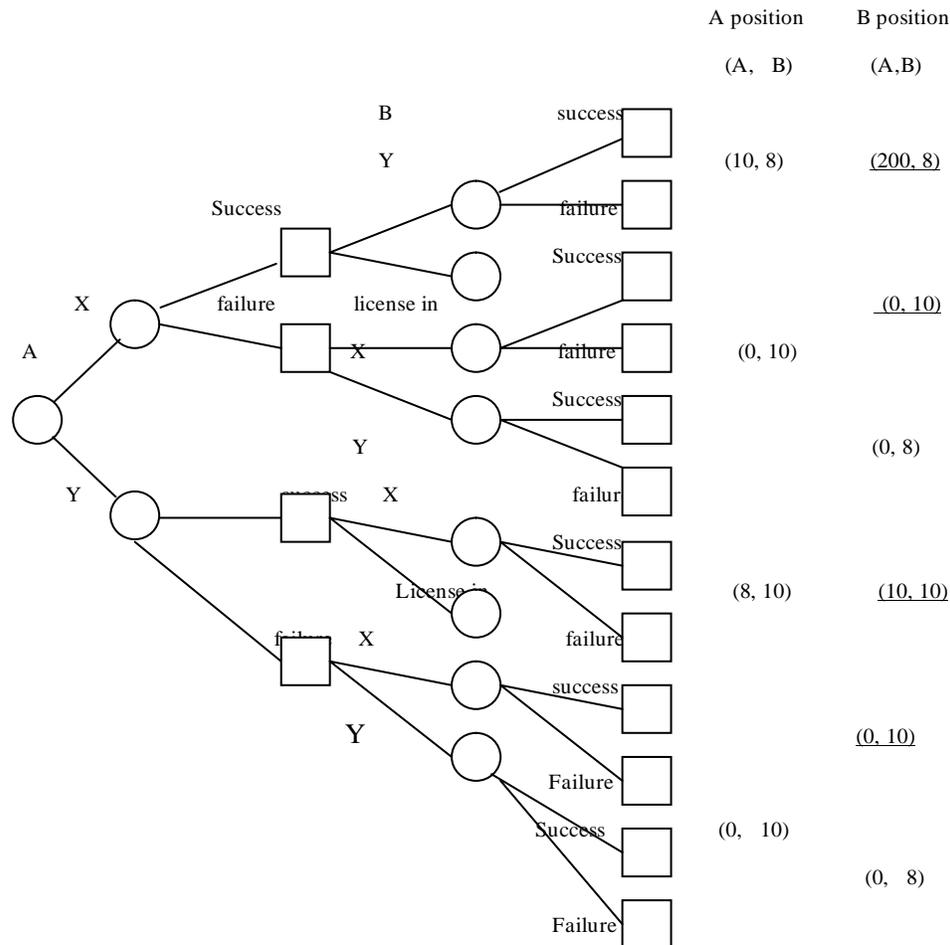


FIG. 6: THE EXTENSIVE GAME OF ONE FIRM MOVING FIRST

**One Firm Moving First**

Assuming firm A move first, then firm B makes decision after observing the result of A. Firm A start from nature, choosing project X or Y by random. When it succeeds in the development of one project, it can obtain monopoly profit with a strong protection of patent. Also as the leader, firm A can choose to license out the technology to avoid marketing risk. The right to license out is what we call license-out real option of R&D management, which is also used to demonstrate that the leader has the first-mover advantage. Firm B, being lagged as the follower, seems to be in a disadvantageous position.

Is this really the truth? As we've seen in 2.1, moving first cannot assure the success in development, while avoiding undertaking the same project can be more meaningful for product differentiation. This can also help the follower in concentration at its development plan. Another merit for being follower is to wait for new information about the development. Furthermore, in the case first mover licensing out its result, license-in strategy may give an addition to its future value by supplying the follower a real option. In the worst case, even when the follower can not share the result through licensing in, when the patent period is over, the follower B enters the market and gets a equilibrium duopoly profit with firm A.

Analyzing Figure 6 may help understand the second-moving advantage. At B position, where firm A has made its decision and the result has come out, what firm B has to decide is to pursue the maximum option. Here we assume the return of licensing in is near zero. When firm A chooses project X and succeeds in developing it, its

return is \$200 million, firm B chooses developing project Y which gives it an expected return of \$8 million. When firm A chooses project X but fails, there is an option facing firm B, project X, or Y,  $\max(Ex(X), Ex(Y))$ , in this case, project X is the better one. To supplement for this, we'd like to mention again that because of the budget restraint, firm A can not gather resource for the second round race after first selection, so there is no sharing of market, firm B can safely monopoly a product market. We can obtain the following payoff matrix,

	B	Y-L,Y	Y-L,L	X-Y,X	X-Y,Y	X-L,X	X-L,L
A							
	X	<b>200,8</b>	200,0	<b>0,10</b>	0,8	-	-
	Y	-	-	<b>0,10</b>	0,8	<b>10,10</b>	10,0

FIG. 7: PAYOFF MATRIX FROM B POSITION (ONE FIRM MOVING FIRST)

From firm A position, it should expect firm B's reactions to every occasion to decide the possibility of selecting project X or Y. See Fig. 8,

	B	A succeed	A fail
A			
	X	10,8	0,10
	Y	8,10	0,10

FIG. 8: PAYOFF MATRIX FROM A POSITION (ONE FIRM MOVING FIRST)

To maximize the expected return at A position, firm A should maximize  $10p+8(1-p)=2p+8$ ,  $p=1$ . At this time, the expected return of firm A will exceed that of firm B. The calculation is as follows,

$$Ex(A)=200 \cdot p \cdot 5\%+10 \cdot (1-p) \cdot 80\%=10$$

$$Ex(B)=8p \cdot 5\%+10p \cdot 95\%+10(1-p) \cdot 80\%+10(1-p) \cdot 20\%=9.9$$

Furthermore, the possibility to assure the leader's advantage is  $p>2/2.1$ , below which there is the value area of second-mover's advantage.

## The Pharmaceutical R&D Race

### The Characteristic of Pharmaceutical R&D

Compared with R&D in other industries, the development of a new drug is a time-consuming and costly process through a strict way from development to application until marketing. What makes it more difficult to handle is the high uncertainty in technological failure. The characteristics of pharmaceutical R&D can be roughly described by four facets: high risk, high cost, long time and easiness of imitation.

#### High Risk

1) Discovery in screening: an accidental event. As we've known, the research in screening stage is on the base of individual work. The technological uncertainty is so high that the possibility of finding effective compounds is almost unpredictable. Experience data have shown that almost by synthesizing 1000 compounds could one compound come to the surface. For more innovative discovery, the rate is even lower.

2) Uncertainty accompanies the whole process of clinical trial. Almost in every step of the trial, risks come up with the form of virulence, or serious side effect, which will possibly invalidate the whole project. Compared with the success rate in screening stage, the possibility of the new effective compound going through (pre)clinical stage is fairly high, almost reaching 1/3-1/2. However, since it's connectedly related to the effect on human body, even a few reports of virulence or serious side effect may sentence the end of the project. Unlike in the other stage, in most of the cases, there is little room for improvement during (pre)clinical stage, especially in clinical stage where human body is the direct object of tests. The defect during this stage is irreversible both technologically and economically. This requires that the management have a high level of capability of reacting to the possible negative information.

***High Cost***

Compared with other industries, pharmaceutical R&D spends a much higher amount in searching for a totally new compound in screening stage. However, it's only a small part of the total expenditure.

The later the stages come to, the higher does the R&D cost. The expenditure increases sharply with the unfolding of Phase I, II, and III. The candidates should be carefully selected on considering the balance of minimal cost and minimal opportunity cost. In such circumstance, the timing of fatal defect being found turns to be a critical problem when considering the possible wasteful use of resources.

***Long Time***

The average development cycle of pharmaceutical R&D is the longest among the mostly industries. There contains a considerable time value that no management can ignore. When comparing several projects with different development time, time value undoubtedly gives a great impact on the decision-making.

***Easiness of Imitation***

In contrast to the difficulty of drug development, the results of pharmaceutical R&D without patent can be easily imitated as long as the competitors buy the new drug from market and analyze its ingredient. With low cost, little time and almost no risk, imitators can easily have access to the technique achieved by great efforts of the developers. Pharmaceutical industry is said to be the industry most suitable for patent protection due to such fragility of technological monopoly.

***Pharmaceutical R&D Race***

According to the above-mentioned characteristics of pharmaceutical R&D, we can relate them with the discussion in section 2. The higher uncertainty and higher cost in drug development require the first mover to bear more risk and engage more resource inside firm. At the same time, the wait option should be valued with great importance with the changing information among pharmaceutical industry. Here we'd like to discuss it based on the previous talk.

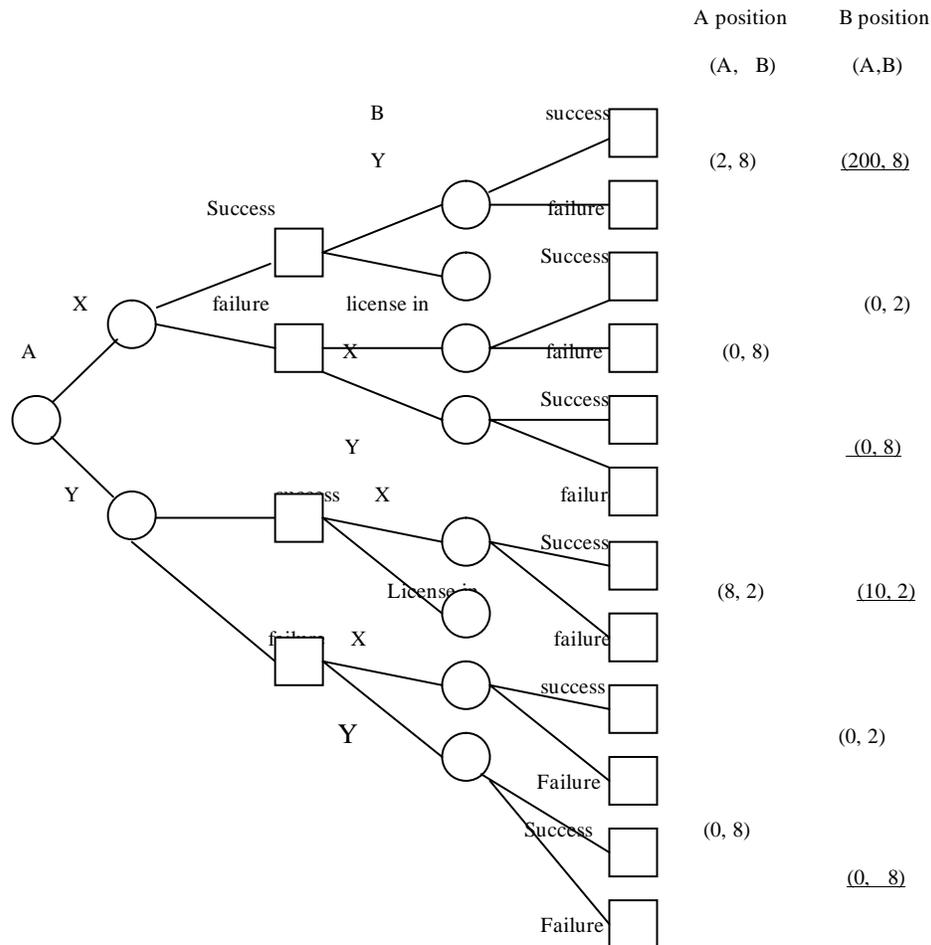


FIG. 9: THE EXTENSIVE GAME OF ONE FIRM MOVING FIRST

To adapt the figures to reflect the pharmaceutical R&D game, we make the following assumptions,

- 1) Project X refers to the breakthrough new drug development with a fairly low rate of success, here 1%, for example. While Y refers to drug improvement with the same possibility of success.
- 2) We assume firm A move first and firm B follows after waiting for a period of time.

The expected return at A position and B position are changed as showed in figure 9. We can see that with a lower success rate, both the first mover and second mover decreased in their expectation.

	B	Y-L,Y	Y-L,L	X-Y,X	X-Y,Y	X-L,X	X-L,L
A							
X		<b>200,8</b>	200,0	0,2	<b>0,8</b>	-	-
Y		-	-	0,2	<b>0,8</b>	<b>10,2</b>	10,0

FIG. 10: PAYOFF MATRIX FROM B POSITION (ONE FIRM MOVING FIRST)

From firm A position, it should expect firm B's reactions to every occasion to decide the possibility of selecting project X or Y. See Fig. 8,

	B	A succeed	A fail
A	X	2,8	0,8
	Y	8,2	0,8

FIG. 11: PAYOFF MATRIX FROM A POSITION (ONE FIRM MOVING FIRST)

To maximize the expected return at A position, firm A should maximize  $2p+8(1-p)=-6p+8$ ,  $p=3/4$ . This time, the expected return of firm B exceeds that of firm A. The calculation is as follows,

$$Ex(A)=200 p 1\%+10 (1-p) 80\%=7/2=3.5$$

$$Ex(B)=8p 1\%+8p 99\%+2(1-p) 80\%+8(1-p) 20\%=6.8$$

## Conclusion

In this paper, we discuss the possibility of the integration between real option theory and game theory at pharmaceutical R&D. As a simple model, we consider two competing firms which are pursuing R&D innovation in continuous time in a two-player market. They both face uncertainty in expecting their R&D outcomes. This time for comparison, we discuss two cases; one is the two firms making R&D decisions simultaneously and the other is one firm moving first. Unlike the common belief of first-mover advantage, even in a high-tech competitive scene as pharmaceutical R&D of this model, there exists a second-mover advantage that can be valued by a real option. We found with the increase of uncertainty, the second-mover advantage can become bigger within certain conditions.

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SECTION 10  
RESOURCE MANAGEMENT

2005

# **A Study of Relationship between Job Satisfaction and Organizational Commitment among Employees of Academic Profession**

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## **Abstract**

**The purpose of this study is to gain a better understanding of the relationship between job satisfaction and organizational commitment among employees of academic profession working at two different work locations. Previous studies have shown that variations in levels of organizational commitment and job satisfaction were contributed by some of the demographic factors, but not much has been studied in terms of its relationships to work location and job profession factor. Using a survey instrument consisting of job satisfaction and organizational commitment questions adapted from the Job Description Index (JDI) and Organizational Commitment Questionnaires (OCQ), the study was conducted on 314 respondents working in different job classification and in two different work locations of a private institution of higher learning. Data were statistically analyzed and results are discussed.**

## **Introduction**

It is in the interest of the organization to understand its employees' level of job satisfaction and organizational commitment in order to assure of their stay with the organization. Realizing high turnover rate of employees causes high cost to the organization, efforts are made to retain employees and minimize turnover whenever possible. Employee turnover has become a very serious problem over the past decades, and to manage employees' retention and to keep employees turnover rate below target is the most challenging issues facing the organization. The impact of employees' turnover—costs of lower productivity due to poor contribution from dissatisfied employees, loss of productivity of experienced personnel, cost of hiring new employees, and also loss of competitive edge due to experienced employees joining new organizations that compete in the business—all these are contributing factors that impact organization performance.

While job satisfaction has been of broad interest to both people within the organization and researchers for many decades (Spector, 1997), organizational commitment has been studied focusing on its consequences to the organization such as performance, turnover, and attitudes (Hunt, Chonko, & Wood, 1986). Organization has to understand the commitment employees have to their operation, and to determine what affect the levels of commitment is one of the ways that organization addresses the issue of employees' turnover.

The issue of turnover and employees leaving the organization has become a central issue of labor in a competitive market environment. Thus, it demands for a continuous study and examination that is able to contribute its findings for changes and improvement for the organization to overcome. Among the issues that are related and deliberated by previous research of organizational study are issues of work attitudes that influence workers behavior—whether to stay or to leave the organization. Job satisfaction and organizational commitment are among the significant factors that have been examined from several approaches and facets.

Examining job satisfaction and organizational commitment will further contribute to organization for continuous improvement, besides that it contributes to enrich current academic literature, specifically the outcome deriving from various perspectives that have been less examined before. In addressing the issues, management of organization has to realize and understand the importance of commitment employees have on their organization and identify factors that are significantly related to their job satisfaction. A clear understanding on the definition and

concepts of both the variables—job satisfaction and organizational commitment is thus important in examining the relationship between the two and identifying factors that affect job satisfaction.

## **Literature Review**

### **Organizational Commitment**

Organizational commitment has been described as consisting two constructs—*affective* and *continuance* (Allen & Meyer, 1990). While affective commitment is defined as “a strong belief in and acceptance of organizations’ goals and values; a willingness to exert considerable effort on behalf of the organization; and a strong desire to maintaining membership with the organization’ (Mowday, Porter, & Steers, 1982, p. 27), continuance commitment considers the idea that individuals do not leave the company for fear of losing their benefits, taking a pay cut, and not being able to find another job (Murray, Gregoire, & Downey, 1991). Organizational commitment refers to an attitude that reflects the strength of linkage between an employee and the organization, and levels of commitment tend to implicate employees’ intention whether to stay or quit the organization. Organization commitment recognizes the identity of a person that is linked to the organization (Sheldon, 1971), thus developing emotional or psychological attachment with the employer.

Organizational commitment has been profoundly investigated by researchers because of its significance in affecting organizational performance. Organizational commitment influences organization performance when it is viewed as employees’ willingness to devote energy and loyalty to the organization. Salancik (1977), in support to this view appeared in the literature to define organizational commitment to include the three organizational functions—organizational identifications, job involvement, and organizational loyalty. In other words, organizational commitment can thus be seen as the extent to which employees show the willingness to exert effort, participate in decision-making, and internalize managerial values (O’Reilly & Chatman, 1986).

Most research seems to focus on the consequences of organizational commitment—organizational performance, turnover, and attitudes (Hunt, Chonko, & Wood, 1986). Nevertheless, an understanding of what predicts organizational commitment in the early state of employment is also beneficial to the organization, as it would help the management to adopt practices that would build up organizational commitment and reduce turnover rate.

### **Job Satisfaction**

Literature in organizational behavior shows job satisfaction as to have been widely studied on its relationship to organizational commitment because of their significant effects on organizational performance—to an extent that job satisfaction has been recognized as a component of organizational commitment (Kovach, 1977).

Job satisfaction has been defined in various ways, and the term was brought to limelight by Hoppock (1935). Hoppock reviewed 32 studies on job satisfaction conducted prior to 1933, and observed job satisfaction as a combination of psychological, physiological, and environmental circumstances that cause a person to say, “I am satisfied with my job”. Job satisfaction is also defined as a state of pleasure gained from applying one’s values to a job (Locke, 1969). Employees who perceived that their values have been realized would embrace a positive attitude towards their jobs, thus acquiring job satisfaction (McCormic & Tiffin, 1974). It is also believed that job satisfaction “can be considered as a global feeling about the job or as a related constellation of attitudes about various aspects of or facets of the job” (Spector, 1997, p.2).

The importance of job satisfaction for an organization is reflected through the interests of several researchers in studying the issue in its relation to organizational performance. Studies have shown how demographic factors—age, gender, race, and education have important effects on job satisfaction. Study by Kallerberg and Loscocco (1983) shows that older workers are more likely to be satisfied than younger workers, whereas a study by Shapiro and Stern (1975) found that professional women such as clinical psychologists, social workers, and medical workers experienced lower job satisfaction than their male counterparts. Several other researchers have also found that employees who report better interpersonal relationship reported higher job satisfaction (Everly & Falcione, 1976; Robinson, Roth, & Brown, 1993; Schneider & Locke, 1971).

In addition to the studies, Shinen and Wait (1996) conducted a study on the effects of socialization among subordinates and supervisors on job satisfaction and reported that employees who were more satisfied with their job in general, and with the nature of their work were also those who more frequently socialized with both their subordinates outside their work place. In fact, Maslow's hierarchical model of human needs can be used to identify the factors affecting job satisfaction. The model can be used to develop a sense of satisfaction in their jobs if they apply bottom-up perspective on job satisfaction.

#### **Job Satisfaction and Organizational Commitment**

The relationship between job satisfaction and organizational commitment has been argued and debated by previous researchers, and several studies have shown job satisfaction to predict organizational commitment (Porter, Steers, Mowday, & Boulian, 1974; Price, 1977). Previous research (Breaugh, 1983; Cullen, Parboteeah, & Victor, 2003; Mowday, Porter, & Steers, 1982) shows consistent results of the positive relationship between job satisfaction and organizational commitment. In the context, it is argued that employees that are satisfied with their jobs are likely to have greater attachment to the organization and to develop stronger commitment.

Although both job satisfaction and organizational commitment are said to be related, they are distinguishable attitudes. Job satisfaction is more an immediate reaction to the job, while organizational commitment is a reaction to the overall organization (Mowday et al., 1982). Thus, employees who may have dissatisfaction over the job, may remain committed to the organization. In general, employees tend to be satisfied and committed if they are contented with the nature of work, satisfied with supervisors and co-workers, and if they perceive current pay policies and opportunities for promotion within the organization are adequate.

Previous research indicates a fairly positive correlation between job satisfaction and organizational commitment (Arnold & Feldman, 1982; O'Driscoll, Ilgen, & Hildreth, 1992). Some of the positive correlation indicated may be contributed by employees' positive response bias, or employees that tend to have a positive response to both measures. It may also be due to workers trying to avoid *cognitive dissonance*—i.e., an unpleasant state of self-inconsistency (Festinger, 1957). In the context, workers seem to convince themselves that they are satisfied because they are loyal to the organization. While it can be argued that a worker can be satisfied with the job but he or she may have low feelings of commitment to the organization—feelings that tend to be positively related.

Both job satisfaction and organizational commitment are affected by several factors. This includes type of work, responsibility associated to the work, social relationships, compensation, promotional policies and practices, and career advancement in the organization. Studies have shown mixed results as to the direction of influence between the two. O'Driscoll et al. (1992) found that job satisfaction may affect organizational commitment, whereby other studies indicate organizational commitment leads to job satisfaction (Becker & Billings, 1993; Vandenberg & Lance, 1992).

It is apparent therefore that maintaining job satisfaction and organizational commitment are challenges encountered by both the employers and employees of the organization—challenges of concerns in order to maintain a high quality and loyal workforce. Studies in this area of research have to remain important for further contributions for organizations and literature as well.

## **Methodology**

### **Research Questions and Instrument**

For the purpose of analyzing the relationship between job satisfaction and organizational commitment and determine which job satisfaction specific indicator significantly affect organizational commitment, three research questions were formulated as guidance to the study. The three research questions are:

1. Is job satisfaction and organizational commitment positively related?
2. Is there any particular job satisfaction indicator that is significant to affect the organizational commitment?
3. Does work location and job profession affect employees' level of satisfaction and commitment?

A survey instrument was designed to measure the levels of job satisfaction and organizational commitment among employees of an academic institution—a private institution of higher learning operating at two different work locations, i.e., Bangi, in the state of Selangor, and Bandar Muadzam Shah, in the state of Pahang—both are located in

the Peninsular Malaysia. The study classified the campus in Bandar Muadzam as located in the rural area, while campus in Bangi as location in the urban area.

Survey questions for the instrument was adapted from the Job Description Index (JDI) capturing 5 facets of job satisfaction—job, pay, rewards, co-workers, and supervisors, and the Organizational Commitment Questionnaires (OCQ). However, pay and rewards items were combined as rewards item. An additional item was included in the job satisfaction measure and identified as overall satisfaction—two questions capturing respondents feelings in general. The questionnaire also includes employee demographic data such as age, education level, job tenure, position, and marital status.

The OCQ which was adopted from Porter and Smith (1970) consists of 15 questions to capture factors pertaining to the acceptance of organization’s values and goals; willingness to put effort on behalf of the organization, and; desire to maintain membership with the organization. The respondents rated on a 7-point Likert-type scale ranging from “Strongly Disagree” weighted (1) to “Strongly Agree” (weighted 7). A general score is determined by acquiring the mean score of all the 15 responses after reverse-coding several negatively phrased questions.

## Results

### Demographic Data

A total of 314 academic and non-academic staff participated in the study that forms about 72 percent of the total number of affected respondents at the two work locations—both are in different states within the peninsular Malaysia. The commonest age group of respondents was 25-29 years old (35.4%). 51.3 percent of the respondents were male and 48.7 percent female. Lecturers constitute 57.6 percent of the sample with the remainder (42.4%) being the non-academic staff working in various categories of job classifications. Respondents from Bangi campus, located in the state of Selangor, and Bandar Muadzam Shah campus, located in the state of Pahang accounted for 84.4% and 15.6% respectively. The majority of the respondents (59.9%) worked for the private institution for less than 5 years, 26.1% worked for 6-15 years, while the remainder (14%) worked for more than 15 years.

### Reliability Analysis and Inter-correlation Analysis

The questionnaire responses were analyzed statistically to assess job satisfaction and organizational commitment of employees toward job and the entire work organization. Mean scores were calculated for each of the job satisfaction items. Mean scores were similarly computed for organizational commitment.

The means, standard deviations, Cronbach’s alpha, and zero-order correlation are presented in Table 1. Mean values for all job satisfaction items and one organizational commitment item are reported to be in the range of 4.11 to 5.39, while their standard deviations ranged from 0.96 to 1.40. The results of reliability analysis are shown in italic and bold on the diagonal. The results showed that all dimensions attained reliability coefficients of 0.78 to 0.95. Thus the internal consistency reliability of the measures used in the study is considered good.

The correlation between all job satisfaction items and organizational commitment shows that all are significantly correlated at  $p=0.00$  where the coefficient was  $r=0.47$  for satisfaction to job,  $r=0.52$  for satisfaction to rewards,  $r=0.32$  for satisfaction to co-workers and supervisors, and  $r=0.53$  for overall satisfaction.

TABLE 1: CORRELATION OF ALL JOB SATISFACTION VARIABLES AND ORGANIZATIONAL COMMITMENT

	1	2	3	4	5	6
1. Job	<b>.85</b>					
2. Rewards & Recognition	.65**	<b>.87</b>				
3. Co-workers	.41**	.56**	<b>.92</b>			
4. Supervisors	.57**	.61**	.62**	<b>.95</b>		
5. Overall Satisfaction	.54**	.47**	.45**	.43**	<b>.78</b>	
6. Org. Commitment	.47**	.52**	.32**	.32**	.53**	<b>.81</b>
Mean	4.94	4.11	4.75	4.68	5.39	4.83
SD	1.09	1.21	1.21	1.40	1.20	.96
N	314	314	314	314	314	314

\*\* $p = .00$ , \* $p < .05$ .

The multiple regression coefficients between organizational commitment as dependent variable and JDI facets as the independent variable are presented in Table 2. In the model, three of the job satisfaction items were found significant to affect organizational commitment. Satisfaction toward rewards and overall satisfaction were revealed significant at  $p=0.00$ , while satisfaction toward job was found significant at  $p<0.05$ . The regression model thus explained 38% of variation in organizational commitment.

TABLE 2: REGRESSION ANALYSIS

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error	Beta		
Job	.12	.06	.13	2.04	.04*
Rewards	.27	.05	.34	5.07	.00**
Co-workers	-.01	.05	-.01	-2.22	.83
Supervisors	-.07	.04	-.10	-1.57	.12
Overall satisfaction	.27	.04	.34	6.17	.00**
R					.62
R <sup>2</sup>					.38
Sig. F					.00

\*\* $p = .00$ , \* $p < .05$ .

### Analysis of Variance (ANOVA)

Analysis of variance (ANOVA) was performed to reveal the significance of job satisfaction and organizational commitment examined from the job profession and work location factors. Results found no significant effect for both job satisfaction and organizational commitment when examined by the work location factor, while examination from the job profession factor revealed job satisfaction as significant ( $p < 0.05$ ). Table 3a and Table 3b respectively show the results of the analysis.

TABLE 3A: ANALYSIS OF VARIANCE BY WORK LOCATION

		Sum of Squares	df	Mean Square	F	Sig.
Org. Commitment	Between Groups	.647	1	.647	.702	.403
	Within Groups	287.369	312	.921		
	Total	288.016	313			
Job Satisfaction	Between Groups	.080	1	.080	.073	.788
	Within Groups	344.774	312	1.105		
	Total	344.855	313			

\*\* $p = .00$ , \* $p < .05$ .

TABLE 3B. ANALYSIS OF VARIANCE BY JOB PROFESSION

		Sum of Squares	df	Mean Square	F	Sig.
Org. Commitment	Between Groups	5.109	5	1.022	1.113	.354
	Within Groups	282.907	308	.919		
	Total	288.016	313			
Job Satisfaction	Between Groups	12.204	5	2.441	2.260	.048*
	Within Groups	332.651	308	1.080		
	Total	344.855	313			

\*\* $p = .00$ , \* $p < .05$ .

Responses from the questionnaire were also analyzed to reveal the rate of percentage for respondents from both the location and job profession. Rating 6 and 7 were classified as high, 3, 4, and 5 as moderate, and 1 and 2 as least satisfaction or dissatisfaction.

Table 4 shows the percentage rated by respondents in both the work locations, while Table 5 shows the percentage rated by respondents of different work professions. The work professions were divided into academic staff (professional lecturers) and non-academic staff (clerical and administration) Results shows that respondents in Muadzam Shah, Pahang rated higher percentage of high job satisfaction on job (59.2%) and rewards (38.8%) compared to respondents in Bangi, Selangor. Conversely, higher percentage of high satisfaction was rated by respondents in Bangi, Selangor on items of satisfaction with co-workers (52.1%) and supervisors (51.7%). Respondents in Muadzam also rated higher percentage of dissatisfaction over respondents in Bangi on job, whereas respondents in Bangi rated higher degree of dissatisfaction over respondents in Muadzam on the other three satisfaction items—rewards, co-workers, and supervisors.

TABLE 4: EMPLOYEES LEVELS OF JOB SATISFACTION BY WORK LOCATION

	Very Satisfied		Moderately Satisfied		Dissatisfied	
	Muadzam	Bangi	Muadzam	Bangi	Muadzam	Bangi
Job	59.2	54.6	38.4	27.7	22.4	17.7
Rewards	38.8	27.4	28.5	29.1	32.7	43.5
Co-workers	40.8	52.1	28.6	27.1	30.6	20.8
Supervisors	44.9	51.7	26.5	21.8	28.6	26.5

Note. Based on a 7-point scale.

Rating 6 or 7 = Very satisfied

Rating 3, 4, 5 = Moderately satisfied

Rating 1, 2 = Dissatisfied

TABLE 5: EMPLOYEES LEVELS OF JOB SATISFACTION BY JOB PROFESSION

	Very Satisfied		Moderately Satisfied		Dissatisfied	
	Academic	Non-Academic	Academic	Non-Academic	Academic	Non-Academic
Job	52.5	60.9	30.4	21.1	17.1	18.0
Rewards	14.4	42.1	33.7	23.3	48.1	34.6
Co-workers	47.0	57.1	30.3	19.6	22.7	23.3
Supervisors	48.1	53.4	23.2	2.5	28.7	24.1

Note. Based on a 7-point scale.

Rating 6 or 7 = Very satisfied

Rating 3, 4, 5 = Moderately satisfied

Rating 1, 2 = Dissatisfied

## Discussion

The purpose of the study was three-pronged. Firstly to examine the relationship between job satisfaction and organizational commitment. Second was to examine whether work location and job profession were significant in affecting job satisfaction and organizational commitment, and thirdly was to examine which specific job satisfaction facets were significant in affecting organizational commitment.

The result of the study that shows positive correlation between all facets of job satisfaction and organizational commitment indicate the significance of the two variables in affecting organizational performance. Rewards and recognition registered significance in relation to organizational commitment ( $r=0.52$ ,  $p=0.00$ ) suffice to relatively show that the higher the rewards and recognition received the higher would the commitment to the organization be. Similarly, the overall satisfaction - which sought respondents to indicate whether they looked forward to go to work every day - showed high significance ( $r=0.53$ ,  $p=0.00$ ). The study thus is consistent with previous studies asserting that job satisfaction and organizational commitment are noticeably related (e.g., Breaugh, 1983; Culen, Parboteeah, & Victor, 2003).

In examining job satisfaction and organizational commitment by employees of different work locations, despite the difference in amenities and infrastructure between the urban and rural setups, no significant result was found. This means that employees were not really concerned in which locations they were placed or posted to.

That it was limited to one particular organization only may have attributed to the generalizability of study. However, the significant results found in the analysis by job profession showed that different job profession—academician by profession and non-academician—do affect job satisfaction.

Job and Rewards were two of the job satisfaction attributes or facets that were found significant to affect organizational commitment. In other words, higher organizational commitment derived from higher satisfaction employees have on their job and more rewards they received.

Previous studies showed that there were some positive relationships between job satisfaction and job performance. Studies have also shown job satisfaction as having positive correlation with organization commitment. The study found significant relationship between job satisfaction and organizational commitment, thus consistent with the most recent study by Addae, Parboteeah, and Charley (2004) who found a positive relationship between the two variables.

The results of the study that examined job satisfaction and commitment from two types of respondents group—i.e., group by different work location, and group by different job profession could pose a question of generality within this limitation as the study was confined to one particular organization. Therefore, to further consolidate the findings, it is suggested for future research on similar study to be carried out in other localities and organizations in order to explore further contributing results that could help develop new findings and theories and henceforth add value to the academic literature.

## Conclusion

The results of this study show that job satisfaction and organizational commitment are positively related. The study also indicates that differences in job satisfaction between job professions exist. This provides an improved guideline—e.g., between job professions for the decision-making process. The study provides valuable information about how employees feel on their job and work organization while working in different work environments and locations. Specific job satisfaction facets were found to significantly affect organizational commitment, suggesting to the management to consider those factors in assuring higher productivity and organizational performance. The findings may be relevant and of value to employees, researchers, and human resource planners for their future planning.

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# **An Exploratory Study on Intermediation Trend in the Recruiting Industry: Focused on the Korean Job Market**

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## **Abstract**

Under the internet age, the competition among recruiting intermediaries including online and offline players has been intensified for several years. Therefore, their business processes or business models have also been transformed to be able to earn the competitive advantages. For these reasons, the traditional players like offline-based recruiting companies have willingly or unwillingly experienced the competitive disadvantages on the recruit battle ground. The online recruiting intermediaries, who newly participated in this industry and based on the internet environment, however, seized on the competitive advantages with the richness and the reach traits of online media. Under this context, the offline traditional intermediaries, who have been threatened by new online entries, must make a replacement of traditional trading mechanisms with alternate trading mechanisms like IT-enabled intermediaries. In this study with the exploratory approach, we investigate the phases of transformation of the traditional recruiting intermediaries, changes in business strategies of offline-based firms, and impacts of online media in e-recruiting industry.

## **Introduction**

With the emergence of online-based recruiting intermediaries, so called e-recruiting service providers, the traditional recruiting intermediaries like headhunters based on the offline business should change the business strategies (NCA, 2004). For instance, the representative firms such as Korearecruit, KK Consulting, Top management consulting, and Unicosearch etc. showed like that the competitive power seemed to be weak for a while when the e-recruiting firms such as Jobkorea, Incruit, Joblink, and so forth emerged in the market. And some headhunters share the recruiting database through strategic alliance with on-line recruiting companies (HR Conference, 2002). The offline recruiting firms, however, have tried to improve competitive power in internet environment. In this study, we hope to investigate the following research questions:

- How does the emergence of information technology affect intermediary market in recruiting industry?
- How do traditional recruiting firms cope with change of managerial challenges?
- How does intermediation trend and competitive position be changed and transformed?

By exploratory study, we observed how the intermediation trend in recruiting industry is changing the industrial structure between new internet-based firms and traditional recruiting firms. We believe the result of this research can suggest the implications in promoting the competitive advantage of firms who wish to newly enter into the online market and understandings the trend of changes in recruit industry in digital age.

## **Theoretical Background**

### **Information Technology and Intermediary**

In the ex-electronic transaction age, the traditional intermediaries existed in almost markets. However, the information technology has made an influence to the existing intermediary industry. Namely, the competitive context between the pure electronic-based (e-based) commerce and the traditional intermediaries dynamically changed the market structure and the rule of competition. In addition, the electronic markets enable direct connections between buyers and suppliers (Pralhad, 1998; Tapscott, 1996).

Gradually, the e-based firms has grasped the more portion of market share, meanwhile, the traditional players hesitantly seems to shrink backward (Chircu & Kauffman, 2000). The traditional brokers, however, who shrank for a while backward and transformed their business model into the e-based intermediary, actively reentered

into the market and try to recapture their lost market share (Easterwood & Morgan, 1991; Chircu & Kauffman, 2000; Gellman, 1996). In addition, the electronic markets offered new types of intermediaries called cybermediaries (Sarkar et al., 1995). Here the traditional middlemen might be defined into the middle man who has provided the brokerage services between suppliers and buyers in existing traditional market structure. And the e-based firm means the middle man who has equipped with electronic media and made a relationship with customers via internet communication (Chircu & Kauffman, 2000).

Also, the traditional intermediaries, equipped with digital media, convey on and offline brokerage services in parallel to electronic markets. In Korea, e-commerce-only recruiting middlemen are, such as JobKorea (www.jobkorea.co.kr) and Incruit (www.incruit.com), representative firms. Meanwhile, Korearecruit (www.recruit.co.kr), as reintermediated brokerage service provider, started offline recruiting service in 1981 and launched web recruiting service in 1987.

#### Intermediaries in Electronic Market

The firms, who want to enter into the electronic market on the basis of IT, occasionally experience three strategic stages such as intermediation, disintermediation, and reintermediation (Chircu & Kauffman, 2000). By emerging new type of intermediaries based on the digital technology, the traditional firms with the strong ruling power in the market start to develop and implement their own strategic plan in order to deal with new managerial environment.

And some e-based intermediaries, who had the competence of information technology, supportively provided the IT-based solutions to non-IT-enabled companies in order to make them recapture the competitive advantage in electronic market. As a result, they could seize new opportunities to get high profitability by developing IT-related standards and providing solutions to market. Yet, in some cases, not almost e-based intermediaries are technology providers to market. For example, new entrants like JobKorea or Incruit in Korea recruiting industry were the late runners, however, they, as pure e-based intermediaries, have continuously grown up and became the powerful market leader.

With the emergence of the internet web-based intermediaries, some traditional companies tend to be slower in identifying the new opportunities on the Internet (Bower & Christensen, 1995). Therefore, in some circumstances, e-based intermediaries disintermediated the existing brokers. But, in this situation, the traditional firms begin to reequip with IT-enabled business activities and try to enter into the new market structure. This situation should be recognized as reintermediation phase.

When the disintermediation and the reintermediation occur in the marketplace, the structure of market share might be rearranged; and then, some traditional firms can seize the strategic and competitive opportunities to be reintermediated. On the other hand, some of these firms occasionally vanish in the market like bubble due to being unable to recover their previous position in the industry. Moreover, it brings about the changes of industrial structure and competitive span (Chircu & Kauffman, 2000).

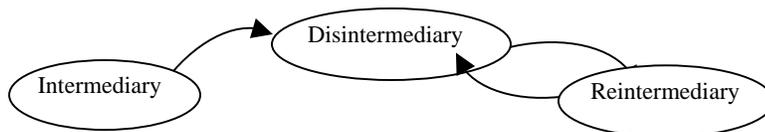


FIG. 1: E-TRAVEL INTERMEDIARIES (CHIRCU & KAUFFMAN, 2000)

## Business Transformation of E-Recruiting Industry

### Korean e-Recruiting Market

Since 1997 under IMF, Korean e-recruiting market is rapidly growing. Because of the economic crisis in Korea, recently, high growth rate of unemployment and difficult job taking might be the crucial motivation of growth of e-recruiting industry. Under this context, the developing trend of recruiting industry reflects the economical situation and managerial environment in firms sensitively. In addition, the growth of unemployment became social and political concern now (NCA, 2004; JobKorea Performance Report, 2004).

Broadly speaking, the recruiting market, as human resource market, usually deliver services to job offers and job seekers like online recruit posting, head hunting, human capital dispatching, outsourcing, and recruitment service and so forth.

The online recruiting market launched the services since 1998 has been based on expansion of the online network technologies and IT infrastructures. Also, according to the expansion of e-recruiting industry, online recruiting firms have partly acquired and merged traditional recruiting intermediaries. And some of existing firms have relationship with online players through strategic alliances. In initial stage, IT-related firms like JobKorea who can easily understand and acquire the cutting-edge technologies began the online recruiting business and then this trend has expanded into broad arena like non-IT based firms. In 2005, the total market size of online recruiting forecasted by JobKorea will be 180BKRW.

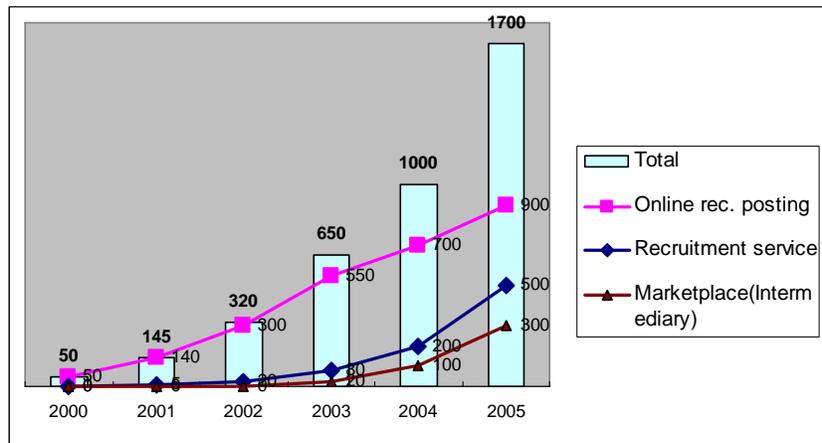


FIG. 2: MARKET GROWTH OF E-RECRUIT POSTING SERVICE(JOBKOREA, 2004)

### Traits of e-Recruiting Industry

#### Digitalized Recruiting

In contrast with offline-based services, the recruiting services on the internet web site can provide much more differentiated services on the basis of digitized data. And, compared with the existing job offering and seeking focused on the general persons, the e-recruiting service can targeted one person or firm who seeks a job or offers a position. By using digital technologies, the sequential phases of e-recruiting evolution are progressing toward e-transformation for much better services such as real time response, personalized service, and high interactivity as shown in figure 3.

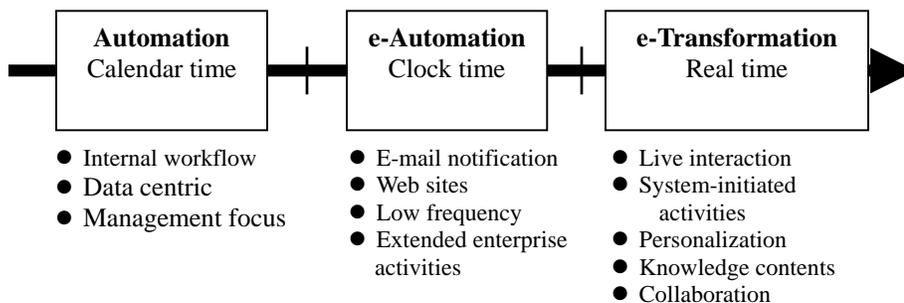


Figure 3. e-Recruiting evolution(Adapted from Gartner Research)

FIG. 3: E-RECRUITING EVOLUTION(ADAPTED FROM GARTNER RESEARCH)

**Public Business**

The traits of recruiting industry may be both public and profit-making business. Because the high growth rate of unemployment, as a barometer for the economy and social issue, can affect the trust level of that country and firms. In addition, in order to decrease the unemployment ratio, there should be prepared lots of idea and the direction of governmental policies by government, firms, and labor-related agencies.

**Competitive Market**

In 2002, the competitive structure had been rearranged the big three players such as JobKorea, Incruit, and Scout as JobKorea, Daumrecruit, and Incruit in Korea recruiting industry. Also, the following firms and new entrants are in pursuit of the leading group. According to the report from Financial Supervisory Service (dart.fss.or.kr) in early 2004, however, the leading firms recorded the revenues of e-recruit posting service as shown below table.

TABLE 1. ESTIMATED REVENUE IN 2<sup>ND</sup> Q, 2004

Company name	Revenue(Billion KRW)	Market share (%)
JobKorea	4.8	46.6
Incruit	2.3	22.3
Daumrecruit	1.7	16.5
Scout	1.5	14.6
Total	10.3	100

(Adapted from [www.dart.fss.or.kr](http://www.dart.fss.or.kr), 2004)

**Active Market**

By endeavor of firms for finding high quality human resource and increment of the job seekers, the volume of recruit market has expanded every year. Therefore the big domestic portals such as Daum recruit center, Nate hello job, and Naver recruit and firms like Korea Recruit Information, or Two Job Korea entered into the online recruit market (NCA, 2004). Also, the recruiting intermediaries focused on the specific industry actively participate in each industry. For example, there are Media Job for media industry, Game Job for game industry, and Medical Job for medical industry and so forth.

**Recruiting Method Change**

In general, the traditional offline media-based recruiting has depended upon such printing materials as newspapers, magazines, or periodical publications. Some of headhunting companies regularly provided brokerage service through the transactional relationship to members as job seekers and job offering companies. Yet IT enables them to personalize the service and deliver one-to-one recruiting services. In addition, the emergence of internet enables firms and applicants to reduce the cost needed in recruiting process.

**Research Methodology**

During the exploratory study, we collected and analyzed the secondary data from internet web pages, the periodical publications, and daily newspapers and had an interview with key informants of online and offline companies.

Major case sites selected for study were two online companies (A and B company) based on pure IT-based recruiting (e-recruiting) and one offline company(C company). Company C established in early 1980 started to publish the periodical magazines and held working exhibition related to recruit. And they launched the recruit

posting service on the basis of internet web in 1997.

We concluded that the company C was representative firm reintermediated with online-based intermediary from the offline-based recruit business. So, we decided that this company was the proper site for study. And two IT-based companies starting with pure online recruit posting service in late 1990 sustain the leading group in Korean e-recruiting market. Both offline and online companies, as case sites, have gap in establishment point, however, the launching points in late 1990s were similar with each other.

Regarding the selection criteria, company A and B have sustained the e-recruiting service for more than 7 years and maintained leading position in this industry. And company C started their business in recruit-related publications, offline posting services, and lots of offline events and launched the online recruiting services. As a consequence, these three companies might be proper sites to our exploratory study.

## E-Recruiting Intermediation

### Case Companies(A and B): Online Recruiting Firms

The company 'A' that actively started meta searching service of recruit information in September 1998 launched the recruit posting service in April 1999 (JobKorea, 2005). At the second quarter of 2004, they took more than 40 percent of domestic recruit market share. In initial stage of business, they developed and offered the differentiated profit model for price structures, for example, item-based prices and daily/weekly/monthly fixed prices, etc. Major offerings consist of recruiting portal, recruit posting, headhunting search firm consulting, headhunting e-marketplace, and ASP(Application Service Providing) service, and so on. In May 2004, about 235 members including 630 thousand firms and 1,720 thousand résumés of personal members have site membership (NCA, 2004; JobKorea, 2004).

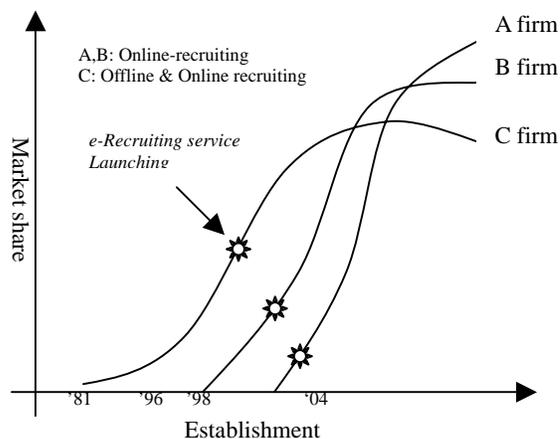


FIG. 4. E-RECRUITING SERVICE STARTING POINT OF CASE SITES

The company 'B' established in 1996 had launched the e-recruiting posting service based on internet web in June 1998. They target businesses such as human capital management (HRM & HRD), HR media service provider, and global standard media group as future vision. Their major offerings are online recruit posting, online advertisement, on/offline headhunting service, and IT solution media business, etc. At the end of the second quarter of 2004, they have sustained about 20 percent in domestic market and conducted in parallel the online posting and offline headhunting services (FSS, 2004).

The company 'C' aiming total recruit information provider had been established in 1981 and started to publish the monthly recruit magazine. In 1992, via PC communication and Hitel network, company provided the recruit information based on text data. After two years, in 1994, they prepared the initial online stage in order to enter the online recruit market by networking with Nowcom, a kind of PC communication service, and launching the Recruit-Net service. Further, the web-based recruit posting service had been launched in 1997. Although company 'C' was first-mover, they did not have any first-mover advantage. Comparing with A and B companies in 2005, in e-recruiting market, they do not come to the front yet but show us high recognition rate. Their major services consist of online recruiting information providing, headhunting, recruitment agency, publishing, and offline-based exhibition or conferences.

TABLE 2: COMPARISON OF RECRUITING CASE SITES

Case site	Established	Major service	Competitive advantage	Differentiation	
IT-based	A	1998	<ul style="list-style-type: none"> <li>Recruit-posting service</li> <li>Personal aptitude test</li> <li>Recruiting ASP service</li> </ul>	●	<ul style="list-style-type: none"> <li>Rich contents</li> <li>Meta-search Technology</li> <li>Three-tier services</li> </ul>
	B	1986	<ul style="list-style-type: none"> <li>Posting service</li> <li>Albeit information</li> <li>Education information</li> </ul>	◐	<ul style="list-style-type: none"> <li>Rich contents</li> <li>Earlier online recruiting firm</li> <li>Media solution technology</li> </ul>
Offline-initiated	C	1981	<ul style="list-style-type: none"> <li>On/Offline posting service</li> <li>Internship posting-service</li> <li>Recruiting magazine</li> </ul>	◑	<ul style="list-style-type: none"> <li>Offline customer loyalty</li> <li>On/Offline customers</li> <li>Publication business</li> </ul>

### Recruiting Intermediary Trends

Traditionally, the information related to the human capital searching has been distributed the recruiting advertisement to the potential applicants by newspaper, magazine and periodical publications. But the advent of internet technologies transferred from the traditional media channels to the web-based.

Some of the offline-based headhunters like company 'C' rapidly entered into the online-based recruiting market. On the other hand, small and foreign companies did not try to expand business into the IT-based market but endeavor to establish the strategic alliance relationship and share the human resource database and get membership as recruit agencies. The reintermediated firms like company 'C' make an effort to maintain the competitive position with its own differentiated competences such as the personal and firm customer network, recruit contents, know-how regarding market traits.

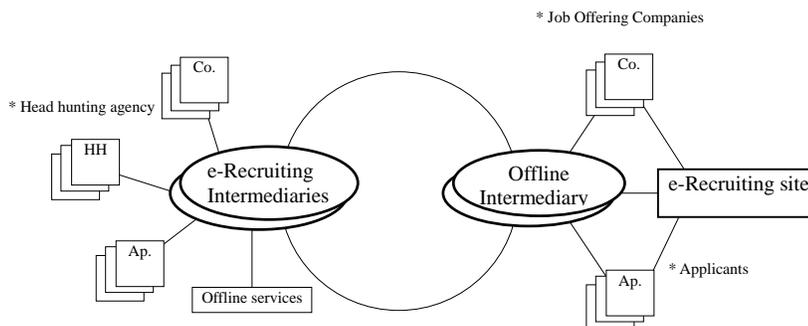


FIG. 5: BUSINESS RELATIONSHIP IN RECRUITING INDUSTRY (HR CONFERENCE, 2003)  
\* PARTLY MODIFIED BY RESEARCHER

But the IT-enabled e-recruiting firms deliver brokerage service between job seekers and job offers as well as infomediary, abbreviation of information and intermediary, service sharing the recruiting database and

information with offline headhunting agencies. Moreover, they gradually provide the offline headhunting business derived from online business. The progress of IT prompted the advent of portal site sharing recruit information. These sites dealt with the online banner advertisement, searching service of human resource, affluent and rich contents, and information distribution and so forth. Also, the portal sites enable to form the recruiting communities. In recent days, they rapidly provide the IT-based one-to-one services applied the CRM technologies via the electronic mail or mobile messages. The internet technologies made possible increase the richness and reach of services to customers (HR Conference, 2000; Evans & Wurster, 2000).

Therefore, by the emergence of IT-based recruiting service providers, some of the traditional recruiting intermediaries seem to shrink up in competitive situation. Yet, by the strategic alliances with online partners, they maintain their own position based on non-IT-based intermediary. Also, the specific recruiting firms that focus on not total recruiting service but targeting on the specific industries appear recently.

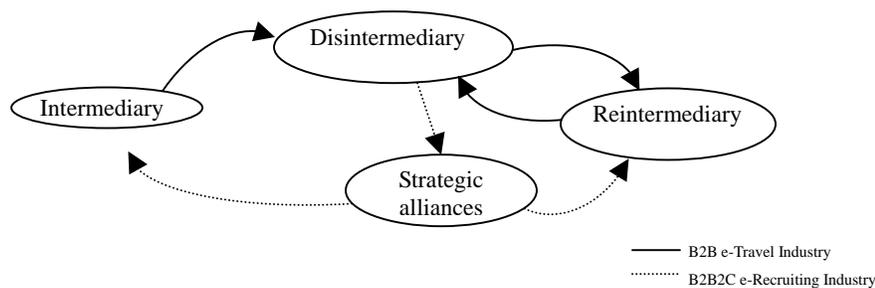


FIG. 6: COMPARISON OF E-TRAVEL & E-RECRUITING INDUSTRY

## Implications

By exploratory study, we investigated how information technology like the Internet affected changes of intermediation phenomena in recruiting industry. We found out the following implications:

First, both the rapid information technology development and the increase of the Internet users enable the traditional intermediaries to reestablish the business strategy for adapting themselves to new circumstances.

Second, the pure e-based recruiting intermediaries should seamlessly make an effort to improve the strategic and competitive advantages against reintermediation phenomenon of offline-based intermediaries.

Third, despite the advent of electronic market, some offline-based intermediaries aggressively seek to survive in recruiting industry with the personalized and differentiated service instead of reintermediation equipped with information technology.

Fourth, in order to expand the business scope and deliver better and personalized recruiting services, e-based intermediaries need to focus on the offline-based core businesses including traditional firms.

We believe that this study can give implications to the traditional offline-based intermediaries who should prepare the new business strategy for survival in electronic market. Additionally, to the online-based intermediary firms, there can be some implications in order to maintain competitive advantage in which the structures of marketplace dynamically change.

## Discussion and Conclusion

With the emergence of internet age and the rapid development of information technologies, there are lots of changes in human capital recruiting industry. The offline-based firms have been fatally influenced by e-recruiting firms providing IT-based recruiting services. Meanwhile, the online-based recruiting service providers disintermediated them from the market or industry for a while (Chircu & Kauffman, 2000). But some offline intermediaries in recruiting industry, who seemed to be disintermediated, reequipped themselves with IT-based service and reentered

into the market in order to recapture their lost market share. As a result, some reintermediaries in the market got back their competitive advantage.

On the other hand, by analyzing case sites in this study, the recruiting industry has shown different trend with online and offline travel industry that was shown in the previous research by Chircu and Kauffman. There are some of traditional intermediary firms modify business strategy by strategic alliance with pure online players such as human resource database sharing, offline human capital pool sharing and so forth.

For starting research area, we determined that the exploratory case research approach seemed proper. However, the case study focused on the single industry and used the secondary data has limitations in confidence about implications. In addition, the outlined conclusions might not be applicable to other industries. So, we have a plan to do further study for generalizing this result by more extensive in-depth interview and empirical survey research.

Focusing on the intermediation trend in human resource recruiting industry, we investigated the change of business strategy of traditional intermediaries. Through this research, there must be some clues in the Internet age that offline-based firms have to develop appropriate business strategies for the digitized managerial environment and to improve their competitive advantages.

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# **Business Strategy and Human Resource Management links in the Emerging Markets: Case Study Evidence from the Five Leading Japanese Manufacturing Units in the People's Republic of China**

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## **Abstract**

**This paper attempted to document how the PRC-based Japanese affiliates can align their human resource management (HRM) policies and practices with their competitive strategies based on in-depth interview surveys over the five leading Japanese manufacturers operating in and around Guangzhou city, the capital of Guangdong province in Mainland China. My interviews with general managers (or vice general managers, in some cases) for each sample firm revealed three types of a firm's strategic orientations, including product differentiation, cost reduction, and quality enhancement for gaining competitive advantage in the Chinese market. Also, interviews with human resource and production managers further clarified firms' HRM efforts to be aligned with their competitive strategy each firm is pursuing. Findings are used to offer several hypothesized relationships between the particular strategies pursued and HRM policies and practices adopted in the PRC market. Limitations of the study and the directions of future research were also discussed.**

## **Introduction**

More and more people now believe that the People's Republic of China (PRC) will become an economic "super power" (Goodall & Warner, 1997). The population of China reaches 1.3 billion people in 2005, or about one in five persons in the world. Most people live in the crowded river valleys and costal areas and there are twenty-five cities with more than a million inhabitants, forming a rapidly growing and increasingly wealthy urban population. Since the introduction of the "Open Door" policy, China has undergone enormous social and economic transformations, which accelerated the speed of industrialization and modernization especially around the Eastern costal areas.

China's success is not only due to her enormous number of human resources, but also to other parts of the world. Findings consistently show that China is one of the most preferred places for foreign investment (e.g., National Bureau of Statistics of China, 2004). Over the last decade, the PRC has attracted 259,000 foreign direct investment projects, with committed investment of more than US\$ 395 billion (Han's Chinese Cultural Development Co., 1996). Further, China's entry into the WTO in 2001 has further increased opportunities for foreign manufacturers, including Japanese firms, to expand their business activities into Mainland China.

Despite the impressive inflows of foreign investment, some observations cast the doubt on whether the economic achievements are sustainable in China. According to the extant research on strategic management that advocates the importance of "fit" in organizations, the performance of an organization is contingent on the degree of the organizational alignment between the organizational systems and business environment (Dotty, Glick, & Huber, 1993). Previous findings in the Western research contexts have confirmed a positive relationship between organizational systems and firm performance (Ketchen et al., 1997). Extending this view to the PRC context, the sustainability of the economic success in the PRC will hinge on how effectively these firms can continue to restructure and reorganize to align with the emerging socialist market economy after the reform in 1976, and to survive the foreign competition when barriers are lifted as China becomes a member of the WTO.

It must be noted that corporate strategy itself was defined and governed by the State in the pre-reform era of the PRC (McComb, 1999). Under such a static environment surrounding the State-owned corporations (SOCs) in the past, the links between strategy, structure, organization, and HRM were of no concerns, and thus Chinese domestic corporations in general have little been able to develop capabilities in formulating competitive market strategy and its responsive HRM policies and practices. The lack of such an organizational knowledge among Chinese domestic corporations has strongly frustrated the establishment of their competitive positions in the market.

Many foreign firms in the PRC, on the other hand, enjoy superior economic performance by exploiting their knowledge and know how to formulate organizational and human resource strategies in ways that can cope with and compete in the dynamic competitive market environment emerging in the PRC. Thus, the ways in which PRC-based foreign firms align their HRM policies and practices with the China's market environment would be taken as a model when the Chinese domestic corporations, including SOCs, took to building their organizational strategies, structures, and systems. Given that a large number of Japanese manufacturers have invested in the PRC and established their competitive positions, the pattern of strategic fit initiated in the PRC by Japanese firms would provide a strategic benchmark for constituting a potent source of competitive strengths among Chinese domestic firms in the future. This motivated the author to examine how in fact Japanese manufacturers in the PRC implement HRM policies and practices in ways that can cope with the China's emerging market competitions.

Despite theoretical assertions of "contingency fit" made by many researchers on strategic human resource management (SHRM) that the adoption of HRM practices should be aligned with the firm's upper-level strategic goals and objectives, little empirical evidence has been reported to date to support such a contingency fit proposition, particularly in the Asian research contexts (e.g., Bratton, 2001; Li, 2003; Takeuchi, Wakabayashi, & Chen, 2003). In other words, an attempt to examining the strategy-HRM fit of Asian firms is at a preliminary stage in the SHRM research field. Given such a preliminary nature of empirical tests for this theory-based proposition, it is deemed appropriate, at this stage, to take a qualitative approach to exploring the firm's strategic archetypes in the PRC, based on the detailed case analyses of some representative firms in the PRC. It is also quite important to identify the specific HRM activities followed by the firm's particular strategic orientations. The present study, therefore, attempts to document how the PRC-based Japanese manufacturing units align their human resource activities with their business strategies for gaining competitive success in the emerging markets in the PRC, using the case study data of the five leading Japanese firms in China. It is expected that this work will help clarify the strategic prototype and its corresponding human resource activities from the practical point of view in the PRC, and serve as a foundation to formulate more testable hypotheses to be examined by using the quantitative survey data for future studies of this field.

## **Methodology**

The case study by using an interview method was carried out to explore the strategic human resource activities in Mainland China. This interview survey was conducted in 2003, with a sample of five leading Japanese manufacturing firms in and around Guangzhou city, the capital of Guangdong province in China. Guangzhou city is well-known as a financial center of Southern part of Mainland China as well as a manufacturing heartland alongside the three other active cities in Guangdong province; Shenzhen, Zhuhai, and Shantou. It is also known that the city is developed through intensive foreign direct investments by Japanese, Hong Kong, US, and UK multinationals with particularly strong influences of Hong Kong economy and trading systems.

One-day interviews with two to three managers for each sample firm were undertaken using the open-ended interview method. For the interview survey, I requested, for each sample firm, one top manager (a general or a vice-general manager in some cases) and two functional managers (the heads of human resource and production departments) to be interviewed. Given that the research tries not only to explore firm's entire business and market strategy, but also to obtain the detailed information on the human resource and production management practices, interviewing with a top manager as well as a functional manager is necessary. Evidently, information associated with firm's strategic activities needs to be collected from the top management executives who are expected to have much information on the firm's strategic plans and objectives, whereas information relating to functional and divisional activities, involving HRM and production management, can be best obtained from the respective department heads: i.e., human resource and production directors. Thus, the multi-informants interview design was applied to examine the strategy-HRM links in the present study.

After my interviews of each sample firm, I asked each top manager to answer the structured questionnaires that contain items of firms' strategic orientations and background information of firms. Filled questionnaires by the top managers were asked to return to the author's affiliation by using the stamped envelopes that were passed along

with questionnaires. The reason why I distributed to the structured questionnaires to top managers is to ensure the compatibility of my open-ended interview findings using different survey methodologies. Also, the complementary use of structured questionnaires with open-ended interviews helps the author to effectively collect the basic information of firms without spending much time on hearing firms' demographic information during the interview time.

Table 1 displays the summary of background information for the five PRC-based Japanese affiliates investigated. The target samples consisted of three electronics and two automobile industries. The major reason why these industries are chosen as cases of this interview survey is my desire to control the technology-level across firms. Prior research asserted that the level of technology possessed by a firm is considered to significantly and directly influence the strategic process of firm's human resource management practices (e.g., Delaney & Huselid, 1996). It is reported that in the PRC, the major industries of Japanese investors are the *textile, electronics, food processing*, and so forth. However, the prior study advocates that the technology level of electronics industry is not necessarily comparable to those of the textile and food processing industries (Yuan & Kee, 1991). Moreover, some SHRM studies recommended that firms' strategic activities and their response to internal management including HRM policies and practices should be observed from the careful sampling of some leading and progressive industries (Becker & Huselid, 1999). The speed and the nature of environmental changes and its reaction to HRM are different across industries with different levels of technology. For these reasons, I focused on choosing the sample firms categorized as high technology-based industries (Yuan & Kee, 1991), and thus did not include the textile or food processing firms.

TABLE 1. BACKGROUND INFORMATION OF THE FIVE PRC-BASED JAPANESE AFFILIATES INTERVIEWED

	Company A	Company B	Company C	Company D	Company E
Industry Type	<i>Electronics</i>	<i>Electronics</i>	<i>Electronics</i>	<i>Auto industry</i>	<i>Auto industry</i>
Interviewees	1 vice general manager, 1 prod. manager, and 2 HR managers	1 vice general manager, 1 prod. manager, and 1 HR manager	1 general manager (double as the prod. director) and 1 HR manager	1 general manager, 1 prod. manager, and 1 HR manager	1 vice general manager and 1 HR manager
Main Products	Electric iron	Electric shaver, hair drier, etc.	Micro-motors for electric devices (CD-ROM/ VTR)	Motorcycle	Car
Establishment year	1992	1993	1993	1992	1998
Number of employees	606	860	855	2100	2436
Number of Japanese expatriate	2	6	7	5	26
Total Assets (US\$)	10.6 million	40 million	6 million	50 million	139.9 million
% of investment by Japanese parent	60%	80%	70%	50%	50%
% of local procurement	75%	30%	65%	95%	60%
% of sales in domestic market	10%	30%	2%	97%	100%

The firm size is another important variable that should be carefully controlled for the qualitative research of this type (Colins & Cordon, 1997). The three electronic firms hold very close number of employees ranging from 606 to 860. Also, two firms that are classified as auto industries (Companies D and E) have 2,100 and 2,436 employees respectively, indicating the similar number of employees between two samples. Thus, the possible extraneous effect caused by the different number of employees within the same industry was controlled for the present case study.

Except for Company E, the establishment year of each company in Mainland China is around 1992 and 1993, indicating that most of the companies interviewed have operated in Mainland China for 10 years or more. All the target Japanese affiliates took the joint venture form with ownership capitals shared with Chinese counterparts. For Companies A, B, and C, 60 to 80% of total assets are owned by their respective Japanese parent firms, while the rest of them are by Chinese domestic electric corporations. For Companies D and E of automobile industries, they

choose equity ownership structure to form 50 to 50 capital investment ratios between Japanese and Chinese corporations. The percentages of sales in China's domestic market to worldwide are much lower in three electric companies (10%, 30%, and 2% for Companies A, B, and C, respectively) than in two automobiles (97% and 100% for Companies D and E, respectively). This is due partially to the differences in international strategies that are generally pursued between electric and automobile industries. Automobile industries tend to adopt multi-domestic strategies whereas electric industries tend to choose global strategies, which can reflect the degree of local market orientations and penetrations of overseas affiliates. Nonetheless, my interviews with top managers at Companies A, B, and C revealed that these electric affiliates in the PRC are shifting export orientations to domestic market orientations, given the rapid growth and importance of the PRC market in their businesses. Moreover, the managers interviewed at Company C, who reported only a two percent of China's domestic market share to total sales, added that a number of products are sold in Mainland China via Hong Kong, and these products are treated as export products. The sales of these products in China are said to be counted as export sales, which deflate the China's domestic share in their accounting data. Thus, the actual percentage of sales in China to total sales volume in Company C must be higher than they reported.

## Results

### Strategy Types of the PRC-based Japanese Affiliates

For the purpose of collecting information necessary to understand how each company attempts to establish their competitive positions in the PRC market, I performed interviews with top management of each target company. Specifically, the following information was collected from affiliates' top managers to classify the firms' competitive strategies in the PRC; namely, (1) the top management perceptions on the firms' competitive strength, (2) time-series changes of the main product prices, (3) the amount of annual product rollout, (4) target clientele for each affiliate, (5) the degree of technology transfer from their Japanese parents, and so forth. Findings of a series of the interviews have enabled the author to classify the competitive strategies of the five Japanese affiliates into three generic strategy types; namely, (1) *cost reduction strategy* (Companies A and D), (2) *differentiation strategy* (Company B), and (3) *quality enhancement strategy* (Companies C and E).

### Strategies of Companies A and D (Cost Reduction Strategy)

Company A specializes in producing electric irons in China towards distributing both inside and outside China's markets. Out of the total assets of 10.6 million US dollars, 60% of it was invested by a Japanese parent firm of Company A and 40% by a local partner of it. The Japanese parent of Company A manages more than 200 overseas affiliates in almost all continents (including 46 units in the PRC), and is well-known as one of the most comprehensive worldwide electric and electronic manufacturers in the world. According to the vice general manager of Company A, the extensive cost reduction is the major sources of competitive advantage of this company, especially in the recent years of fierce competitions in the PRC iron market. As in the cases of other Japanese electric and electronic MNCs in the PRC, high quality production based on the firm-specific, high technologies served as foundation to meet the market requirements from customers, which led to an increased economic performance of Company A in the past. Furthermore, with its highly reputed, strong name brand that had been established for long by its Japanese parent in the global market, Company A could establish, from the outset, its competitive position in the PRC to a considerable extent. In particular, at the beginning of its operations in the PRC, the products with its name brand attracted considerable attentions of the upper income consumer groups in the PRC, and thus Company A chose a focused strategy to offer its high quality products for such a selective consumer segment.

However, the price competition has increasingly got heated among multinationals from Europe and Asia, which blocks an expansion of the Company A's market share in Mainland China. According to the marketing research conducted by Company A, the potential demands of the PRC's electric iron market amount to about 4 million iron sets per a year. Against the total of 4 million demands, Company A could currently sell 230,000 sets annually (6% of the total demands), the number of which is the third of all the iron makers in the PRC, following a European MNC (25%) and a Taiwanese MNC (22%). Under such a harshly competitive environment surrounding electric iron manufacturers, Company A now places an overwhelming emphasis on the cost reduction by

restructuring the entire business processes.

The strategic changes of this Company A to cope with the emerging market competition can be observed from how it has succeeded in reducing the cost of their products. In 1998, an anchor iron product of Company A was sold at the price of 295 RMB for one set, whereas the similar model is sold currently at 138 RMB. Surprisingly, the price of the iron produced by Company A has dropped by more than 50% for the last four years, despite the fact that commodity price estimated by the retail price index (RPI) in the PRC shows just a slight decline from 1999 to 2002 (National Bureau of Statistics of China, 2003). According to a vice President of Company A, such a strategic shift from the focused strategy to the cost reduction one has enabled this Japanese company to cut into the mass market of the PRC, and to compete with other competitors on costs and prices.

The very similar scenario was also found in Company D, which started its motorcycle manufacturing and sales operations in 1992 in Guangzhou. The Japanese parent company of this equity joint venture is well-known as a worldwide automaker that offers a range of automobiles, motorcycles, and other power equipments to the global markets. In particular, over around 50 years since its establishment, this MNC has manufactured a cumulative total of over a hundred million units in 25 countries. Company D attempted to compete in the market based on maximally exploiting the reputational and technological advantages inherited from its Japanese parent. At the beginning of its PRC operation, producing quality motorcycles and appealing to selective customers with the high-income bracket were the basic strategy that had been adopted by this PRC-based Japanese affiliate.

However, as Company D penetrates into the PRC market, some of its competitors (mostly SOCs) grew as strong competitors, having their product quality higher than they used to offer. They eventually started to offer the middle-to-high quality products at the very low prices, becoming the threats to this PRC-based Japanese manufacturer. Then, the market share of Company D's motorcycles hit its ceiling after the 7 years of its establishment in the PRC. In the year of 1999, the production volume and net sales for this company achieved its peak with 330,000 sets produced per year. After reaching maximum sales outcomes in 1999, the Company D's market share gradually got shrinking due to the growing competitions among motorcycle manufacturers in the PRC. In an attempt to increase the motorcycle share in the China's market, Company D made a strategic decision to enter into the downmarket by remarkably slashing the prices of mainstream product models. A 125 cc. motorcycle was offered at the price of RMB 15,000 in 1992. However, the similar model with the same air volume displacement was sold at around RMB 5,000 to 6,000 in 2002. Surprisingly, Company D cut the price down to the one-third of the original price set at the beginning of its PRC operation. According to the general manager of this company, the market share of Company D's motorcycle had recovered for the last two years, due largely to the success in this strategic change and its corresponding efforts in reorganization. As such, the major strategic shift this company aims to accomplish at present is to expand their market share by switching their target from the high-end to the mass market segmentation. Thus, Company D currently adopts the cost reduction strategy to cope with the emerging market competitions in the PRC's motorcycle market.

#### **Strategies of Company B (Differentiation)**

Company B produces various home electric appliances for both overseas and domestic (Chinese) markets, including electric shavers, hair dryers, electric toothbrushes, and air purifiers. Of these products, electric shavers are produced the most with total 10 million sets during 2002, which accounts for 60% of the total production volume in Company B. Following the multi-domestic strategy pursued by the recent business planning of its Japanese parent company and the increased demands of home electric appliances among Chinese consumers, Company B has lifted the percentage of domestic sales in China to the export ones from 5% to 30% only for the last few years. Now, the situation is that in order to establish the potential competitive advantage for long in the PRC market, Company B places a massive emphasis on attracting the Chinese customers through the on-site development of a wide range of product lines that no competitors had ever challenged. In reality, the core R&D function resides in the head office of Company B in Japan, but currently some of the new products, especially most of the electric shaver models, can be designed and engineered independently by the Company B's R&D department in Guangzhou. The vice general manager mentioned that this on-site R&D function inside this PRC-based affiliate plays a significant role in offering a number of new products that fit in well with Chinese customers taste in a timely manner.

Regarding the shaver products including those for men and ladies, Company B annually enter around 40 models of new product into the PRC market, the number of which is much larger than the products offered by any

other competitors, especially those from Europe including Phillips and Braun. With its wide varieties of product models, according to the vice general manager, Company B has achieved top sales in the China's domestic market along with Phillips. Surprisingly, the sales volume of Company B has become doubled for the last five years, which makes the firm ahead of its competitors. The vice general manager narrated that this PRC-based Japanese affiliate was, at that time, making concerted efforts to outdistance the Phillips market share in the PRC for the upcoming three years. Thus, such a product differentiation and innovation strategy contributes significantly to an establishment of the Company B's competitive position in the PRC market.

#### **Strategies of Companies C and E (Quality Enhancement)**

Company C was established in 1993 with a capital of US\$ 6 million invested jointly by a leading Japanese electronic producer (Parent C) and a local partner, for the purpose of producing and supplying high technology-based electric parts in Mainland China, including various electric motors that can be equipped with computer storage of high rotation speed, camcorder, VCR, and audio products. When Company C was established, the 70% of the total assets was capitalized by its Japanese parent side and the 30% by the Chinese local investor. With the total number of 855 employees, Company C earned the net sales of US\$ 36million in 2002. These indicators are comparable to two other electronic firms (Companies A and B) sampled for the present study.

The Japanese parent of Company C is also a well-known Japanese MNC in the world, and emphasizes the development of "miniaturization technologies" based on high-density mounting and other new technologies stemming from its own unique perspective and know-how. The Company C's strategic mission is to supply the high technology-based, high quality IT components and devices not only to the overseas business units under this MNC, but also to other high-tech ventures operating in the PRC, especially those invested from Taiwan and Korea. According to the general manager of Company C, the micro-electric motors that are produced with an exploitation of miniaturization technologies by Company C show considerably high demands from the Korean and Taiwanese manufacturers who do not possess appropriate technologies or know-how to manufacture such types of mini motors. By taking advantage of firm-specific technologies that Parent C has developed and accumulated over time, Company C, the parts plant of Parent C, extends its business to other manufacturers beyond Parent C's production units. Thus, it can be said that Company C started to move beyond the boundary of this MNC's global value chain network, and to exploit the local markets in China with its manufacturing and technological strengths.

As in the cases of other firms with strong technological orientations, maintaining and continuously improving the supreme level of a product quality is the major strategic goal of Company C for the pursuit of financial performance in the PRC. The general manager of Company C said that neither the cost reduction nor differentiation is the issue for this components plant, as the product (micro electric motor) offered by Company C itself is based on its firm-specific technology. He continued that in order to keep its technological advantage, the continuous quality enhancement and improvement is the enduring theme of the company. Moreover, Company C specializes in the production of value added products that can allow the firm to increase profitability in the PRC. Hence, how to establish the dominant producer position in the niche and to expand micro-motor market in the PRC through quality enhancement strategy is the major concern for Company C.

Company E is another PRC-based Japanese affiliate that can be classified into the quality enhancement company. This automobile manufacturer is an equity joint venture between leading Japanese and Chinese carmakers, which started its PRC operation in 1998. Company E, in particular, focuses on manufacturing and marketing only the following two car models in the PRC: one is a 5-seat middle-sized sedan with three variations that equip different sizes of engines (i.e., 2000 cc and 2300 cc) and the other is a 7-seat multifunction car that equips a 2300 cc one. The choice of the product lines to be offered in the PRC reflected the several of marketing research conducted by this company prior to starting its PRC operation. The vice general manager narrated; "our marketing surveys showed that the Chinese customers prefer to own more luxury model than we had expected before. They seemed to drive the models that are sold and driven in North America." Taking seriously into account this marketing research results, Company E made a decision to focus only on the above two executive car models that had already been well received in the US market.

Surprisingly, the price setting of the cars sold at Company E was much higher than most of other car manufacturers in the PRC; Company E sold its main car model at around RMB 298,000 (US\$ 38,000) despite the fact that the dominant price of the car product among European and other Japanese automobile makers was below

RMB 150,000 (US\$ 19,000). Even with such a higher price setting, this company outperforms in the PRC car market based on its product quality. Thus, establishing and maintaining the high quality production of the luxury-typed cars in the PRC forms a basis for Company E's success in the PRC market. The vice general manager narrated that in terms of quality, Company E had already met the expectations of its Japanese parent. According to him, the car quality inspection conducted by its Japanese parent showed that this PRC-based affiliate outranked, in its car quality, other 16 manufacturing sites managed by the Japanese parent all over the world.

## **Human Resource Management Practices under Three Strategy Types**

My interviews with top management of the five PRC-based Japanese manufacturers revealed the way they adapted themselves to the China's emerging market competitions, which can be classified into the following three strategic types; *cost reduction, differentiation, quality enhancement strategies*. In the following section, I will document the findings of my interview surveys with HRM and production managers, which will help to understand the links between HRM practices and the three strategic archetypes in the PRC. Table 2 displays the summary of the interview surveys on HRM practices and business strategy links.

### **HRM Practices under Cost Reduction Strategy (Companies A and D)**

As shown in Table 2, I found that both Companies A and D, which adopted cost reduction strategy, had the following distinctive characteristics in terms of recruitment and employment policies; (1) recruitment of employees mainly from provincial areas, (2) high reliance on contingent workers, (3) short-term employment policy, and (4) the reduction of the Japanese expatriates within the affiliate. All these practices are considered directly reducing the personnel expenses within the firm. For example, Company A was found to prepare three employment contract options that are differentiated depending on the period of employment that ranges from 1 month, 9 months, to 1 year. The period of an employment contract for each employee is determined based primarily on the results of screening tests of recruits as well as the work attitudes and skills they show on their probation period. High performers are able to make a one-year contract with options of contract renewal, while those who don't perform well are forced to choose either the nine-months or one-month contracts. Since electric irons are, in nature, the seasonal commodity; they are sold well during spring to fall and not during winter, a nine-month contract was prepared to reduce unnecessary employment costs during winter season. As such, Company A pursues the flexible management of human resources with its emphasis of an effective use of contingent workers that enables Company A to balance the human resource and production inputs and outcomes. Company D also pursued the flexible employment policy by offering one-month, three-months, and one-year contracts for employees. Out of the 2,100 employees, 1,400 workers were involved in the operational jobs at the shop floor of Company D. Of the 1,400 direct workers, 300 staffs were classified as temporary workers whose labor contracts are relatively short; i.e., on a monthly basis for part-time workers and on a seasonal (three months) basis for other temporary workers. These contingent workers are called "assistant" in the organization and normally assigned to the operation jobs, which do not require skillful tasks. In such a situation, they are treated differently from full-time employees in terms of the wage level, welfare scheme, and some other incentive systems. Thus, the use of contingent workforce helps the firm to reduce personnel expenses, and fit well into the corporate-level cost reduction strategy that Company D is currently pursuing.

Another important characteristics in employment policy Companies A and D took to align their overall cost reduction strategy was that both companies had reduced the number of Japanese expatriates, and staffed only a small number of them in these PRC-based affiliates. For Company A, only two Japanese expatriates were dispatched out of 606 total employees in the PRC operations, having decreased half the number of Japanese expatriates for the last 3 years. In a similar vein, only five expatriates out of the 2,100 total employees in the PRC were assigned from Japanese parent to Company D. As in the cases of other Japanese overseas affiliates, the personnel cost allocated for Japanese expatriate assignment was prohibitively high, and it became an inordinate burden to affiliates' cost management. Thus, reducing the number of Japanese expatriates by replacing them with competent local managers seems to be consistent with the cost reduction strategy these companies are pursuing.

TABLE 2. SUMMARY RESULTS OF THE STRATEGY-HRM LINKS AMONG FIVE PRC-BASED JAPANESE AFFILIATES INTERVIEWED

	Company A	Company B	Company C	Company D	Company E
<i>Strategic focus</i>	<i>Cost reduction</i>	<i>Differentiation</i>	<i>Quality enhancement</i>	<i>Cost reduction</i>	<i>Quality enhancement</i>
<b>HRM Characteristics</b>					
- Core Philosophy	<i>Buy</i>	<i>Buy &amp; Make</i>	<i>Make</i>	<i>Buy</i>	<i>Make</i>
- Basic Policy	<i>Flexibility focus</i>	<i>Results orientation</i>	<i>Long-term orientation</i>	<i>Flexibility focus</i>	<i>Long-term orientation</i>
	Recruitment of employees mainly from provincial areas	Emphasis on the recruitment of R&D personnel	Emphasis on the recruitment of administrative personnel	Recruitment of employees partly from provincial areas	Recruitment of employees within Guangzhou city
	High reliance on contingent workers	Low reliance of contingent workers	Low reliance of contingent workers	High reliance on contingent workers	No reliance of contingent workers
- Recruitment and Staffing	Short-term focus (Contract term: 1 month, 9 months, & 1 year)	Long-term focus (Contract term: 1 year, but almost all employees renew contracts)	Long-term focus (Contract term: 1 year, but almost all employees renew contracts)	Multiple focus (Contract term: 1 month, 3 months & 1 year)	Long-term focus (Contract term: 1, 3, 5, & 9 year(s))
	Small number of Japanese expats	Medium number of Japanese expats	Large number of Japanese expats	Small number of Japanese expats	Very large number of Japanese expats
	Person-Job fit principle	Person-Position fit principle	Person-Organization fit principle	Person-Position fit principle	Person-Organization fit principle
- Performance Appraisal and Compensation	Short-term, performance-based (Monthly bonus system)	Team performance-based (for shop-floor); Performance & Market-based (for R&D)	Seniority (length of service, experiences, etc.) considered	Seniority (length of service, experiences, etc.) considered	Seniority (length of service, experiences, etc.) considered
	Technical most	Both managerial and technical	Technical most; language (Japanese) & disciplinary education emphasized; Incorporating strong corporate philosophy	Technical most	Both managerial and technical; Incorporating strong corporate philosophy
- Training and Development	Short-term focus	Long-term focus	Long-term focus	Multiple focus	Long-term focus
Belief That the Parent Company's HRM Is Competent	Low	Moderate	Very high	Moderate	Very high

Furthermore, appraisal and compensation practices of Company A were found well designed to match the cost reduction strategy this company was striving to follow. In particular, the HR department of Company A has increased the portion of the special cash payment (bonus) in ways that can reflect the short-term performance results of an employee in the compensation package. As in the cases of other Japanese companies, individual differences in terms of work achievements and performance are reflected in the amount of bonus each employee receives in Company A. As of the interview survey, around 21% out of the total amount of pay for each employee was made up by the bonus. In order to further compensate for an employee's work performance, the HR department of Company A set the objective to increase the portion of employee bonus up to 40% in his/her total amount of salary. It should be noted that Company A modified the bonus practices of its Japanese parent company which normally pays the bonus twice a year. In Company A, however, this special cash earning was changed to be paid on a *monthly* basis. With such a modification, the short-term work performance of employees is immediately compensated in the form of a monthly monetary reward. This modified short-term bonus system enabled this company to succeed in motivating the part-time and seasonal workers who are of little interest in the upward career mobility in this organization.

### **HRM Practices under Differentiation Strategy (Company B)**

Company B has adopted the unique shop structure for producing wide varieties of electric shaver models that are continually developed by the Company B's on-site R&D office. Unlike the traditional assembly line production typically seen in this type of electric factories, Company B introduces the "module production system" in order to fit in well with differentiation strategy this PRC-based affiliate is pursuing. In Company B, the belt conveyor production lines were replaced by a number of module work units on the shop floor. Each work unit is composed of 5 to 6 production workers in which they assemble all the shaver parts and make the finished products. The main advantage of this system is that every work unit can independently assemble the different types of finished products at the same time, and thus the system does fit in well with the production of various models and products. According to the production manager of Company B, the system can also cope with the necessary adjustment of the production methods which is accompanied by the continuous development of new product lines; i.e., more than 40 models annually developed in the Company B's local R&D office.

Such a unique work system followed by the company B's differentiation strategy was found to significantly affect the management of human resources at the shop floor. Perhaps, the most significant aspects that characterize human resource management under the differentiation strategy can be seen in the Company B's compensation policy and practice. My interviews with human resource and production managers of this company revealed essentially the two compensation characteristics that distinguish the Company B's HRM practices from others. The first is the policy that emphasizes the reward for team-based performance mostly among employees at the shop floor level. Replicating the compensation practice exists in the Japanese parent company (Parent B), the basic policy of Company B's compensation is to link an employee's regular cash payment closely with his/her position rank. However, for the purpose of reflecting the employee's work performance in his/her monetary reward to a large extent, Company B increases the portion of a special cash payment (bonus) in the total compensation scheme. In this sense, Company B develops a strong tendency to embody a performance-based compensation policy to fit with the differentiation strategy. More interestingly, this special cash payment is given for employees on a team basis; namely, Company B adopts a team bonus system. "This is a unique compensation system developed in this affiliate without any transfers or influences from our Japanese parent company," said the production manager. An introduction of the team bonus program in Company B is followed by the prevailing way of Company A's module production system in which strong co-operation among employees within each work unit is highly encouraged. The amount of a bonus paid for each employee is determined based on the team-based performance evaluation results. The evaluation results depend on the degree to which each module unit can attain the production goals and objectives set by team leaders staffed in each unit. In addition, some of the high performing and/or promising employees are individually rewarded, and become the strong candidates to be promoted into the career track of Company B. It must be noted that the team-based bonus program and the corresponding appraisal methods are developed independently by this PRC-based affiliate, accompanied by the corporate-level differentiation strategy and its supporting shop structure of Company B.

Another key HRM policy that characterizes the differentiation-focused company can be observed from the management of R&D personnel in Company B. With the increased strategic importance of the R&D section under the differentiation and innovation strategy, Company B places a strong emphasis on motivating the professional R&D employees so that they can continuously bring out the new product models that may stimulate the customers' buying willingness. In reality, the incentive system for the R&D professionals is fairly independent in this company. First, Company B provides relatively a higher level of incentives (basic wages) with designers and engineers in the R&D section. Second, the ratio of special cash payment including a bonus to the total compensation is higher for R&D employees than for other staffs in Company B. This indicates that more performance-based pay is practiced in the R&D section compared to other functions in Company B. Third, a part of special cash payment is closely tied to the market success of the Company B's products. In other words, to the extent that the newly developed shaver model has caught the customers' attention in the market, the particular R&D staffs who joined the project can receive high evaluation results which reflect the amount of special cash earnings.

All these aspects of Company B's HRM policies are considered to be aligned vertically with the differentiation strategy that Company B is pursuing. Basically, Company B focuses on rewarding employees based on their performance. The tendency is much clearer in the R&D section where new products are created and brought

into the market. The policy of a result-orientation is consistent with the very nature of differentiation-focused firms whose success is determined by how they can offer a new line of products that can stimulate the consumers' buying behavior.

#### **HRM Practices under Quality Enhancement Strategy (Companies C and E)**

I observed from the qualitative analyses of five companies that there was a certain degree of compatibility in HRM practices between two quality-enhancing firms; i.e., Companies C and E. It is notable that these two PRC-based affiliates with quality enhancing strategy were found to have strong tendency to train and develop their human resources from the long-term perspective, which is typically seen in many of the Japanese firms in Japan. For example, both companies took a similar recruitment policy of hiring potentially high quality human resources rather than hiring low cost workforce. At the time of my interview, Company C placed an emphasis on hiring administrative staffs, and conducted very careful screenings for hiring types of employees who can be easily trained and educated into the company's organizational culture of high quality. Honesty, faithfulness, and the sense of loyalty were valued in the screening process of this company. The HRM manager narrated; "The major reason why we seek to hire this kind of employees is our desire to nurture employees with strong quality consciousness in the firm." Thus, the HR department of Company C carefully screens the potential workers whose personality is acceptable to this Japanese organization that has strong quality orientations. In reality, this PRC-based affiliate pursued quality enhancement through the uncompromising efforts on practicing its parent company's way of management, which is initiated by the general manager from Japan. He was also responsible for the production manager of this company, and has exercised a strong leadership in this PRC-based affiliate.

Contrary to the cost reduction firms that extensively hire recruits from provincial areas, Company E practiced annual recruitment of fresh graduates only from within the Guangzhou city where the wage standards of employees are relatively high. The company's intension of hiring employees merely from the urban area is that the company prefers to employ potential workers with a certain level of technical and academic backgrounds necessary to complete quality jobs within the organization. Another policy related to the employment in Company E is that the company adopts relatively a long-term employment. Four different options in the labor contract are prepared in this organization depending on the period of worker's employment: i.e., the 1-, 3-, 5-, and 9-year(s) labor contracts, which are quite long and rare in the PRC. According to the HR manager of Company E, however, the contracts are automatically renewed for almost all employees, and thus at the present stage, the employment here becomes quite long-term.

Both Companies C and E invested a large volume of capitals in employee training and development within the company. Company E conducted the formal training programs 10,000 times a year. Company C had provided not only the technical training but also the language (Japanese) and disciplinary trainings in order for employees to fit in well with the climate of this quality-centered, Japanese organization. Evaluation and reward systems are closely linked with employees' participation in the quality control (QC) activities and trainings and other development programs. As such, evaluation and reward systems of these companies are said to be more process-orientated than those of other companies. Interestingly, HRM managers of these two quality companies showed similar reactions to my question as to whether or not the parent company's HRM is competent in the PRC-based affiliates. They provided very affirmative responses to this question, and added that localization would be of little importance in the PRC operations as it might involve the loss of quality in production and management. It appears from the findings that long-term development policy which is traced back from their Japanese parent companies would play an important role in adopting the quality enhancement strategy in their PRC operations.

## **Discussion**

With an emerging but increased market competitions in the PRC, how firms can outperform competitors through the management of China's abundant and quality human resources constitutes major challenges for firms establishing competitive advantages in the PRC. Following the resource-based view in the strategic management research (e.g., Barney, 1991), the prior work on SHRM field had suggested that the pursuance of a vertical fit between business strategy and its supporting organizational policies and practices would constitute the potent sources of competitive

advantages in the market. Using this framework, this study has attempted to document the ways in which the five leading PRC-based Japanese manufacturers align their HRM policies and practices with their business strategies in the PRC market. Findings and implications of the study can be summarized as follows.

My interviews with general managers (or vice general managers, in some cases) for each sample company revealed that their strategic orientations in the PRC market can be classified into the three types; i.e., cost reduction, differentiation, and quality enhancement strategies. This finding is partially consistent with the Porter's (1986) framework of competitive strategies that categorized MNCs' strategies into the cost leadership and differentiation. The finding showed that adding to the Porter's work, there was an independent strategic dimension of quality enhancement on which some PRC-based Japanese affiliates compete with other competitors in the emerging PRC market. Some recent studies have tended to treat quality enhancement or high quality strategies as being a distinctive competitive strategy that can be used as a lens in analyzing strategy-HRM alignment (Schular & Jackson, 1987; Sanz-Valle, Sabater-Sanchez, & Aragon-Sanchez, 1999; Zhara & George, 2000). In this respect, the study provided additional evidence that the three strategic typologies of quality enhancement, cost reduction, and differentiation were valid operationalizations among Japanese manufactures in order to cope with the fierce competitions in the emerging market economies in the PRC. With the PRC market being increasingly complex, global, and competitive, future studies are highly recommended to explore some other strategic dimensions specific to the PRC-based firms, with which notable findings can be generated regarding a set of HRM policies and practices to be aligned.

Moreover, my interviews with human resource and production managers of each sample firm clarified companies' HRM policies and practices that can be aligned with their competitive strategies in the PRC. It was found that in support of the contingency notion of SHRM, HRM policies and practices are greatly contingent on the affiliates' upper level business strategies. Specifically, companies under cost reduction strategy (Companies A and D) exclusively adopt the short-term, flexible human resource policies in order to reduce the personnel expenses to a large extent. Other HRM practices including compensation and training are also aligned with this flexible policy as well as corporate-level cost reduction strategy. The core HRM philosophy would be to "buy" or "acquire" the human resources where firms rely on external labor markets surrounding them. On the other hand, the company with differentiation strategy (Company B) emphasizes human resource management for the R&D section. Performance-based compensation is extensively practiced in such an innovative company. The basic HRM policy of this differentiation firm is not process-oriented, but results-oriented where employees' enrollment in the market success of each product is highly evaluated. The mixed approaches of "buy" and "make" are adopted in this companies' HRM philosophy. In addition, firms with quality enhancement strategy (Companies C and E) place a massive emphasis on replicating the HRM policies and practices originated in their Japanese parent firms. They engaged in standardizing the corporate HRM procedures with a high similarity to those of the Japanese head offices. Long standing employment and human resource development are salient among these manufacturers in the PRC. It appeared that strong commitment to quality may require a Japanese HRM model which is considered as quality-enhancing human resource management. The core HRM philosophy of these quality companies is to clearly "make" human resources within the firm who can contribute to the upgrading and maintaining unparalleled product quality.

The above findings of HRM policies and business strategy links replicated some empirical studies that have been reported to date in the Western research contexts. For example, Schular and Jackson (1987) point out that firms pursuing such a strategy have the following organizational and operational characteristics: tight controls (centralization), overhead minimization, and the tendency to pursue economies of scale. Therefore, it is argued that a reduction in the number of employees and/or a reduction in wage levels might constitute the basic human resource policies of this type of organization (e.g., Schular & Jackson, 1987; Sanz-Valle et al., 1999). In their study of a US manufacturing plant, Youndt et al. (1996) report that the low-cost strategy fitted in well with what they describe as an administrative HRM policy including hourly pay, individual incentives, results-based performance appraisals, and so forth. Moreover, Miles & Snow (1984) and Khatri (2000) pointed out that HRM policies among differentiation firms tend to have a strong results orientation with the intention of developing a large number of innovative and creative employees. For instance, in his study of 194 Singaporean firms, Khatri (2000) found that innovative firms tended to introduce a more performance-based compensation system than did those with strong cost orientations. Sanz-Valle et al. (1999) conclude that firms using the differentiation strategy will compensate employees in relation to their competencies. Finally, Schular and Jackson (1987) took a US-based Japanese automobile manufacturer as an

example of pursuing quality enhancement strategy, and showed that long-standing policy in human resource management and development could be a major source of competitive success in the US.

As such, these findings reported in some prior SHRM studies are considered highly comparable to those of this study that used five leading Japanese manufacturers as a source of information in the PRC setting. This suggests that the findings and evidence related to the strategy-HRM links in Western or other market economies can be practically applied, to some extent, to the ways firms in the PRC align their HRM policies and practices with the China's emerging market environment. Therefore, the study provided a possibility that researchers of this field may find some generalizability in the manner by which types of HRM policies and practices fit into particular strategic orientations without cultural and/or geographical constraints.

Furthermore, the findings of the study also offer a partial but significant insight into the modification processes of HRM policies and practices in a cross-cultural setting of MNCs, which has been mainly discussed in the area of international HRM (IHRM) field. Some prior research of this field (Bird et al., 1999; Beechler & Bird, 1995; Taylor et al., 1996) explained the modification processes of HRM practices in Japanese MNCs' subsidiaries, and identified several determining factors that may affect the local adjustment of the parent company's HRM practices. One key consistent finding in the stream of literature is that the belief shared by the top management team of subsidiaries strongly affects the choice of HRM practices in the local setting. To be more specific, if the subsidiary's top management team has the shared belief that the parent company's HRM practices are context generalizable and competent, then the original management template transferred from its Japanese parent firm can be sustained and reinforced. On the other hand, if the subsidiary's executives believe that the parent company's HRM practices are context specific and incompetent (mismatched), then the HRM template is subject to some or significant modifications in the local environment. Adding to such findings, the present case analyses of some leading Japanese manufacturers in the Guangdong area further clarified the processes in which the HRM template adopted by the Japanese manufacturers in the PRC can be maintained or modified. In particular, the study found that the firm's strategic choice of competitive strategy for the survival in the PRC market determines the extent to which the affiliate firms in China adjust their HRM template used in the Japanese parents.

Finally, the present study has attempted to document how the PRC-based Japanese affiliates with different strategic approaches adopted and emphasized different sets of HRM policies and practices in the manner by which an HRM is vertically aligned with their competitive strategies in the emerging market competitions of the Chinese market. This is an initial attempt, and thereby further investigation is needed to empirically test the strategy-HRM links by taking not only a qualitative but also a quantitative approach. Substantial accumulation of empirical research that tests the contingency fit between strategy and HRM in relation to performance consequences of firms in the PRC would help generalize the findings of the study and provide better understandings of this relationship.

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### End Notes

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# **Comparative Study of Strategic Human Resource Practices of Five Personal Care Companies in Malaysia for Enhancing Employee Motivation and Retention**

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## **Abstract**

This comparative study aims to compare and contrast strategic activities of designing HRM systems across five leading companies with different country-origins and cultural values in Malaysia. The study, in particular, examines how HRM practices of these companies are implemented so as to secure and retain talented HRs as well as to inflate their in-role and extra-role behaviors from the comparative perspective. Findings showed that, while Western HRM practices are widely adopted to a varying degree in Malaysia, significant differences in the HR practices across the five companies exist to attain strong organizational effectiveness. This paper demonstrated that a focus on competitive pay packages to attract, motivate, and retain talented HRs is clearly effective in most of the Malaysian employees as they highly desire monetary rewards. Adding to this finding, however, combined and complementary uses of other strategic HR practices with competitive pay practices are found to be very important in order to further increase employee retention and organizational effectiveness of firms. Findings are used to discuss the application aspects of well-integrated strategic HR practices – not just “what,” but also “how” to achieve closely integrated complementary HR practices that create synergies for firms.

## **Introduction**

Much had been said about the importance of human resources (HRs) in achieving organizational effectiveness of firms (Gerhart & Milkovich, 1990). While HRs are the backbone of an organization, hiring capable people alone is not enough as employee attitudes, intentions and commitment are critically affected by human resource management (HRM) practices. In other words, HRM practices can be strategically designed and implemented in order to promote desirable employee outcomes, including the enhancement of employees' in-role and extra-role behaviors and intentions to stay.

In the age of globalization, where the accumulation of both individual and organizational knowledge becomes rapidly of great necessity in firms, employees are increasingly required to enhance and renew their knowledge bases so as to meet their organizational requirements. People are likely to job hop not only to obtain better monetary rewards, but also to enlarge their career development opportunities. The overall turnover rate in Malaysia was 14.8 percent for 2002 and was predicted to increase up to 17.7 percent for 2004 - the highest among 11 Asia-Pacific areas/countries (Hewitt, Nov, 2003). Past survey research reported that Malaysian respondents showed their willingness to stay with their current organizations only for less than three years (Lim, 2001). Given the ongoing loss of talented HRs that may result in high operational costs of many firms in Malaysia, the issue of attracting, retaining and motivating talented people is ever challenging for HR specialists in Malaysia.

Considering that talented people are the scarce strategic resources of the 21<sup>st</sup> century and that multinational corporations (MNCs) tend to introduce different home-country practices to managing employees' motivation and retention at their local operations, this comparative study aims to compare and contrast strategic activities of designing HRM systems (hereafter referred to as SHRMSs) among five companies. Specifically, the study is designed to examine how HRM practices are implemented so as to secure and retain talented HRs as well as to inflate their in-role and extra-role behaviors from the comparative perspective of the five leading firms in Malaysia. It also aims at offering the several of case study evidence to understand the underlying purposes of human resource strategies to achieve success in the market. A literature review revealed that numerous case studies evolve general comparisons that lack in-depth comparative study in Malaysia. Further, this study that uses the sample of Malaysian-based Japanese and Western MNCs, in addition to Malaysian local firms, is deemed important due to the magnitudes

of these MNCs' impacts on Malaysian economy. Also, these MNCs have been creating huge employment and skill enhancement opportunities in Malaysia. Thus, this study is expected to become, in part, a meaningful guideline to management practitioners in attracting, retaining and motivating talented HRs in a Malaysian context.

### **Brief Backgrounds of HRM in Host Countries**

Compared with MNCs from other countries, Japanese MNCs have a strong tendency to transfer their parent country's HRM practices, which are called "Japanese-style HRM", and to control their local subsidiaries through overseas assignment of parent country expatriates (Peterson, Napier, & Shim, 1996). It is generally known that Japanese MNCs are largely group-oriented, and emphasize harmonious work relationship and teamwork. They also tend to adopt culturally distinctive HRM practices such as seniority wage and promotion system, lifetime employment, extensive training programs, and group-oriented approaches (Gomez-Mejia & Welbourne, 1996) to elicit employee's sense of loyalty and commitment to their organizations.

On the other hand, the performance-reward tie of Western MNCs is strong and mainly individual-based, reflecting HRM practices that are close to their individualistic national values in motivating employees for superior performance (Hofstede, 1980). High performers are identified and given extra attention for succession planning. However, Western MNCs tend not to hesitate terminating poor-performing employees owing to the contractual nature of employment relationship. In short, the Western, particularly U.S., management systems are characterized by high individualism, impersonality in relationships, emphasis on pay as a main motivator (money-oriented), and high inter-firm mobility (Zhuang, 1992).

As for Malaysia, its HR practices, systems, and regulations are largely influenced by British colonization experience. It is commonly seen that HRM practices of Malaysia are the artifacts of an integration of Western and indigenous HRM practices. Malaysian have been described as money-oriented and inclined to job-hop for better financial offers with little hesitation (Kawabe, 1991). This tendency is traced back to the proactive introduction of Western management and education systems in the past as well as the increased convergence of work-related values and expectations across culture in the present. Although the role of HR department and its importance are gradually changing in many of Malaysian firms, the general notion is that it still plays merely an administrative role, not a revenue-generating one. However, some progressive Malaysian firms that adopt Western HRM practices have recognized the strategic importance of an HR department. Whichever role the HR department would play in organizations, Malaysian national survey showed that 90.5 percent of 304 companies in a survey practiced performance-based reward systems, although seniority still minimally counts in salary decision to a varying degree (MEF, 2003).

### **Strategic HRM Systems (SHRMSs) of Five Companies in the Personal Care Industry**

Much has been said about the convergence of HRM practices. While MNCs may utilize similar strategic planning to manage organizational effectiveness, the degree of effectiveness may differ since the way MNCs implement their planning tend to be strongly affected by their parent company. This article is based on in-depth case studies of five personal care companies operating in Malaysia (Table 1). The companies investigated include A (a Japanese MNC), B (a British-Dutch joint venture (JV)), C (a U.S. MNC), D and E (two Malaysian domestic firms). Approximately three managers in one firm were interviewed at Companies B, C, and D and one top manager at Companies A and E in 2003. In order to explain in detail each company's strategies to retain talented employees and to promote in-role and extra-role individual performance among them, I investigated firms' efforts in doing so in the following HR functions: namely, recruitment, compensation and benefits, training and development, promotion and succession planning, performance appraisal (PA) system, and organizational culture of firms. Considering the depth and the sensitive topics covered in this study, all companies are represented with alternate names for the purpose of confidentiality.

### **Strategic Retention Strategies**

In general, popular reasons for turnover include unfavorable work environments, unsatisfactory compensation, better offers elsewhere and personal reasons. Distinctive reasons for staff turnover in each firm were identified across the five companies. First, Company A, a Japanese MNC, tends to lose employees due largely to less competitive pay packages relative to its competitors and less attractive pay practices which is referred to as “seniority-based pay systems,” whereas Company B, an European MNC, and Company C, an US MNC, tend to lose a number of talented HRs in groups at the same time when employees resign to follow their boss who is poached by a new firm. These companies also attribute their high turnover rates to the failure in hiring practices that may induce the lack of person-organization fit among new entrants happen. Another reason for their high turnover rates is a poor competency of employees that leads to their resignation or termination of employment. Two Malaysian domestic firms (Companies D and E) often lose talented HRs due largely to their less competitive pay packages and the lack of matured training facilities. There were the cases in Company D where some key middle management staffs resigned to set up their own business.

### **Recruitment and Selection**

Selecting the right people who fit in well with organizational and task requirements for each firm constitutes one of the most critical ways to retain employees. The recruitment strategies of two Western MNCs in Malaysia, i.e., Companies B and C, try to address the challenges of sourcing the best potential HRs and of retaining them in these companies as well. In order for these Western companies to facilitate employees’ retention through firms’ selection activities, Companies B and C placed a greater emphasis on using a person-organization fit assessment as an effective selection tool. As facilitators of using this selection tool, HR departments of both Companies B and C work closely with their functional managers in setting selection criteria (trainability, required skills and competency) coupled with their organizational values (qualities and work attitudes). For instance, Company B, a British-Dutch JV, that places more emphasis on employees’ competency and attitudes (80%) than on the skills they have (20%) preferred fresh graduates who had less working experiences in the past. For this European MNC, a priority is given to the recruits’ personality and characteristics that may fit in well with its organizational policy and climate. For instance, this company first screened job candidates over the phone to gauge their enthusiasm about working at Company B. Then, the company checks how desirable they are for the company’s reward system (especially, the pay for performance system that Company B is implementing). This example demonstrates that, HR department of this European MNC try to identify the degree of correspondence between each applicant’s needs and organizational reward systems, and then to assess how compatible an applicant’s work motivation, satisfaction, and organizational commitment are with the company’s expectation and culture.

Such great emphasis on pursuing P-O fit in the recruitment process stems from Company B’s corporate belief that changing attitudes is far more difficult than training people in a skill. The better the new recruits fit with the organization, the less likely they are to leave the organization since screening provides clues as to how well job candidates would work and behave in the company in ways that are more in tune with the corporate culture. In contrast, new recruits who go through their behavioral change exercise may get frustrated and may eventually increase their intentions to leave. This will, therefore, induce high turnover rate and inefficient operational cost. Both of these companies are particularly careful towards selecting job candidates who secure employment at Malaysian local firms due to high failure rate (75%) in hiring them.

Not believing in poaching HRs, the Japanese MNC (Company A) previously practiced the same hiring policies as the ones practiced by its headquarter in Japan. Following the hiring policies in the headquarter in Japan, Company A used to hire only fresh graduates with no practices of mid-career hiring. Just as other Japanese MNCs that practice conventional Japanese HRM systems, Company A was careful to avoid raiding talent as commonly practiced in highly individualistic nations. However, this approach brought about high recruitment and training cost in Malaysia-based subsidiary, in that, Company A was targeted as a free training center by rival firms and its star trainees left after completion of three-year training for more lucrative positions elsewhere. In response to such inefficiency, Company A started to ease its hiring strategy to consider re-entry of experienced middle-aged HRs. Apart from internal sourcing, Company A that gained improved reputation after introduction of SHRMSs rarely advertised for hiring in that, news of job openings or vacancies tend to be passed through word-of-mouth from employees of Company A to their acquaintance.

Compared to the aforementioned three foreign companies in Malaysia, two Malaysian local companies, Companies D and E, place somewhat less attention to the hiring practices of attracting, retaining, motivating talented HRs. This is due to the tendency that the talented job applicants generally select foreign-owned firms that have more attractive employment packages than local firms. In the case of Companies D and E, they often took a reactive stance in hiring talented HRs through counter-offering rivals' pay packages. One distinctive difference in these local companies is that they have less concern on how well applicants fit with organizational culture than foreign-owned firms, particularly Western firms in Malaysia (Companies B and C).

#### Salary and Compensation

Pay-for-performance system (PFPS) is the most widely used approach to reward employees' individual performance as it is used to motivate their willingness to work hard and to retain resourceful employees within the firms (Gerhart & Milkovich, 1992). It was found that all five companies interviewed believed that the primary motives of rewarding employees were to motivate and retain desirable HRs. Foreign MNCs generally can afford to have deep pockets enough to attract, retain, and motivate the best talents. They also tend to be more aggressive in poaching talented HRs. Further interviews for three foreign-owned companies (Companies A, B, and C) revealed that many employees who participated in foreign-owned companies continued to serve their employer. This tendency is particularly clear among two Western MNCs (Companies B and C) where other firms could not counter-offer talented employees working for these Western firms due to the less attractive pay packages for them. In short, influence of parent company values is very noticeable when observing salary structure and incentive distribution among the five companies interviewed.

In offering relatively high and comprehensive compensation which is based primarily on an employee's individual performance, the two Western MNCs (Companies B and C) tried to attract, retain, and motivate talented HRs by strongly differentiating employees' monetary reward depending on their individual performance. In the case of Malaysian locals (Companies D and E), they often take a reactive stance in counter-offering rivals' pay packages owing to budget constraint and concern for economies of scale. This is because there is a tendency that talented HRs in Malaysia seem to gravitate to foreign-owned firms including Japanese (Companies A), European (Company B), and US MNCs (Company C). According to the interview findings, most of the participating companies assumed that Companies B (at 75<sup>th</sup> percentile) and C (at 50<sup>th</sup> percentile) offer the best pay packages (basic salary, bonus and other forms of incentives) in ARM valuable staff, followed by Company A, Company D and E respectively. In terms of the formal salary increase structure, Company C pays the highest, followed by Company A (Table 3). Those of Companies B and D are below the first two companies. While Company E's seems to be the least attractive, it rewards excellent performers at 10-15 percent that is off the record. Comparing the average salary increase of five participating companies with those in Table 2 (Table 3), most of the companies offered median range (Companies A, B and D). Company C offered upper quartile range at 8 percent while Company E offered lower quartile range at 3.5 percent.

TABLE 1: SALARY INCREASE OF 2002 AND 2003 (FORECAST) IN MALAYSIA

Industry	Average Salary Increase (in percentage)		Quartile Analysis (in percentage)					
			Lower Quartile		Median		Upper Quartile	
Year	2002	2003	2002	2003	2002	2003	2002	2003
Manufacturing	4.87	5.24	3.50	4.00	5.00	5.00	6.00	6.00
Non Manufacturing	5.87	5.74	4.58	5.00	5.00	5.00	8.00	7.00
Overall	5.38	5.52	4.00	5.00	5.00	5.00	7.00	7.00

Source: MEF, 2003, pp. 331 and pp. 369

TABLE 2: COMPARISON OF FORMAL SALARY INCREASE STRUCTURE ACROSS COMPANIES

PA Category	Comparison of Percentage of Salary Increase as per PA Results									
	Company A		Company B		Company C		Company D		Company E	
	Rank*	Degree**	Rank	Degree	Rank	Degree	Rank	Degree	Rank	Degree
Average increment	2	5%	2	5%	1	8%	2	5%	5	3.5%
Excellent	2	high	4	high	1	high	3	low	5	low
Good	2	high	3	medium	1	medium	4	high	5	low
Average	4	medium	3	high	1	high	2	medium	5	low
Poor	3	low	3	low	2	medium	1	low	5	low
Non-performer		0		0		0				0

Note: \* Ranking of the salary increase (in percentage) is compared across all five companies within the same PA category.

\*\* Degree of salary increase is determined by comparing the percentage between the PA categories of the same company. For instance, it is determined by comparing the salary increase of poor performer to the salary increase of average performer (i.e., 2% and below: low; 3%: medium; and 4% and above: high).

TABLE 3: ANNUAL BONUS OF COMPANY B

PA Category	Spread of HR Competency	Annual Bonus	
		Executive level	Managerial level
Outstanding	Less than 10%	2 months contractual bonus	2 – 4 months
Stretching	About 75%	-	1 – 2 months
Minimum	Less than 15%	-	0 month

TABLE 4: ANNUAL BONUS OF COMPANY A

Appraisal Rank	PA Category	Gap of Bonus across PA Category*	
		Organization	Individual
6, 7 and 8	Excellent	substantially large	unrevealed
4 and 5	Good	large	small
3	Average	substantially large	small
1 and 2	Poor		

Note \* Gap of bonus is determined by comparing the difference between the PA categories.

To strongly tie pay packages to individual performance, Company B differentiates the three levels of salary increase with medium to high degree of salary increase between different performers. Judging from the distribution of salary increase, Company B highly rewards outstanding performers, putting in more effort to retain this group of HRs (Table 3). It did not practice automatic increase (Table 4). Only those outstanding executives in Company B may enjoy contractual bonus.

The US MNC (Company C) does not rely compensation strategy for staff retention as heavily as the British-Dutch JV (Company B). This is because Company C considers avoiding a constantly spiraling outlay on compensation packages. Furthermore, Company C does not intend to be the best paymaster in attracting, retaining, and motivating talented HRs although it still pay competitively and readjusts its remuneration based on salary survey every two years. It creatively formed employment packages (training, job enrichment, organizational culture, fairness and transparency) that compensate for the monetary difference. While salary increase scheme at Company C is generous at eight percent on average, it is also designed to substantially differentiate each of the nine performance rankings in order to clearly distinguish five levels of performers (Table 3 and Table 9). Unlike Company B, Company C's retention strategy spread to cover from average to excellent performers. Poor performers who are ranked at the bottom three would not receive any salary increase. Neither can such employees receive contractual bonus even though it is based on organizational performance.

Like its parent firm, Company A, the Japanese MNC, used to implement conventional Japanese HRM systems that emphasized greatly on seniority in reward systems. This has resulted in below-market salary, perceived unfairness, and demoralized employees in Malaysia that further complicated intended motivation and crippled retention strategies. Faced with such difficulties, Company A started revamping its HRM practices in 2001, and was in full force for three-year gradual pay readjustment so as to offer market-competitive pay packages. Company A redesigned its poorly defined 23-grade structure to one of eight grades that are more precise in terms of (1) the size of accountability, (2) job design, (3) individual achievement, and (4) his/her contribution to department and organization. This Japanese MNC in Malaysia also introduced a salary increase system that makes large differentiation among employees in order to better retain good and excellent performers. This effort not only fruitfully promoted greater trust among employees but also was motivational to them. To further maintain offering competitive pay, Company A adjusts compensation levels every three years according to salary survey. Its new sales incentive scheme was effective in continually motivating sales team on monthly and quarterly basis. Company A does not practice automatic salary increment for non-performers. Unlike some other companies investigated in this study, Company A extends organizational performance-based bonus to non-performers, aiming at motivating and appreciating less or non-performing employees. The bonus differentials based on organizational performance are quite large, while differentials based on individual performance are relatively small. This tendency reflects the collective nature of Company A's greater emphasis on appraising team and well-concerted efforts within work units and their contributions to better organizational performance (Table 5). Opportunities to join the company's oversea tour (especially to Japan where the home office of Company A exists) are provided for excellent sales performers as a motivational incentive.

Company D, a Malaysian local, has simple compensation practices in which performance slightly counted more than seniority (60:40) in salary decisions. Amount of salary increase was narrowly fixed in accordance with appraisal grades except for grade A (Table 3). Company D did not carry out pay freeze except for some least performing employees as a means to provide stable work environment and job security for all employees in Company D.

TABLE 6: SALARY INCREASE AND INCENTIVE SCHEMES OF COMPANY E

Appraisal Rank	Annual Incentives	Monthly Incentives
	Bonus (month)	Sales Commission
Excellent	2.00	oversea tour
Good	1.50	RM800
Average	1.00	RM500
Poor	0.50	none

Another Malaysian local company, Company E, is cost-sensitive and family-managed. It mainly extends attractive pay package to revenue-generating unit such as sales teams (Table 6). For instance, offering monthly incentives and competitive commissions for new and existing products. Although most of the companies interviewed in this study mainly used individual performance as a yardstick for salary increase, Company E principally refers to organizational performance with an average of three and a half percent increment while still taking into account some degree of individual performance and traits as per PA form. However, higher salary increase may deviate from written policies and reach as high as 15 percent on a quiet affair. In spite of tying bonus to individual performance, poor performers at Company E could still enjoy half month bonus, which is higher than that of Company A (Japanese MNC), showing the paternalistic side of local management that accommodates with less competent employees. Based on the even incremental spread of bonus across different level of performers, it shows even importance is given to all performers. In the case of staffs being poached, Company E tends to take less proactive approach to retain them through counter-offer.

**Fringe Benefits**

My interviews revealed that there were no huge differences in the fringe benefits among foreign MNCs, offering equally attractive perks. More interestingly, I could observe, through a series of interviews, that these participating foreign MNCs had responded to changing social values. For instance, both Companies B and C, the Western MNCs,

in recent times have decided to reduce its fringe benefit for cost control as they were less effective in attract, motivate, and retain employees as a result of complacency among seasoned employees. Moreover, traditional fringe benefits that had promoted loyalty in the past were becoming less feasible with the increased tendency of younger workforce to job-hop as well as to opt for real-time monetary rewards. These social changes have prompted these two Western MNCs to reconsider the role of fringe benefits such as housing subsidy, retirement scheme and insurance coverage in creating flexible benefit scheme (cafeteria-style benefit system) to better meet specific needs of employees. As for Malaysian companies, Company E mainly provides basic fringe benefits as per statutory requirement while offering more indigenous perks that are traditionally popular. The fringe benefit of Company D is somewhere in-between of the foreign MNCs and Company E.

Besides retaining HRs through competitive compensation, Companies A (Japanese MNC) and B (British-Dutch JV) offer very generous fringe benefits (higher medical coverage, housing subsidy and longer seniority-based annual leave, and attractive retirement gratuity) than that of other three companies to demonstrate organizational care for employee welfare. Fringe benefit in Company A also provides better health maintenance for senior staff. Recognizing that ineligibility of latecomers to receive housing subsidy represents unfairness, Company B compensates new recruits who join after 2001 with higher salary.

Company C, (US MNC) also provides attractive fringe benefits but also tries to keep it cost-manageable since its employees perceive these benefits as some form of entitlement, and hence defeating its motivating purpose. Company C allows full reimbursement of education within a certain expense without any contractual binding – something rare and very appealing to Malaysian society that greatly emphasized on education. MBA course is fully sponsored to retain potential HRs and senior employees. Further, rank-related benefit like partial subsidization of car loan at five percent is equipped in order to retain top and middle management personnel. To retain talented young HRs, Company C designed another form of retirement allowance to encourage younger employees to continue their service there. This attempt is to transfer the retirement allowance into additional of three percent of payroll onto employee provident fund or into real-time monetary incentives of which can be enjoyed after five years of service. Company C did not put any cap on medical benefits and extended this benefit to immediate family of its employees to show organizational care.

At a first glance, the fringe benefits of Company D (a Malaysian local) seemed too simplistic and less attractive than the three MNCs investigated. However, given the interpersonal orientation of Malaysian firms that put less attention on elaborative written rules, less formalization can also be interpreted as more room for flexibility in negotiation of fringe benefit. For instance, Company D is less stringent in extending car and housing subsidy to employees. Although some fringe benefits lacked the detailed elaboration, they are decided case by case hence no maximum cap was placed. Another Malaysian domestic firm (Company E) that manages its organization in rather indigenous way offers most of its fringe benefits by adhering to the minimal legislative requirement. However, there is employee dissatisfaction towards the current provision.

#### **Training and Development**

Simply paying high-performing HRs more monetary incentives is not sufficient in retention strategy. The more the executives feel a company values them, the less likely they are to leave. In essence, training equips employees with the necessary skills and knowledge to meet job expectation as well as to reinforce desirable attitudes. However, training can also be strategically positioned for attract, motivate, and retain talented HRs. Past research (Rioux, Bernthal, & Wellins, 2002) revealed that Malaysian workforce eagerly sought to receive training, and primarily engaged in developmental activities for personal and practical reasons (Table 7). Given its importance, it is obvious that training can contribute significantly to attract, motivate, and retain talented HRs. Being well-recognized for excellent training programs, training and development is one of the main strategies to staff retention for Companies A, B, and C. In line with their emphasis on continual learning and upgrading of skills, these three companies extend development programs conducted by professional institutions to employees so as to equip them with skills required in future. Such orientation reflects that these companies have long-term career plans for employees that may possibly enable their career advancement.

TABLE 7: REASONS FOR ENGAGING IN DEVELOPMENT ACTIVITIES (N=871)

Reasons	Percentage
It helps me grow as a person (not just in terms of my job)	94
It gives me the skills I need to perform my job	93
It makes me more marketable for other (future) jobs	75
It helps me receive special rewards or benefits (e.g., salary increase)	45
I am required to participate	33

Source: Rioux, Bernthal, & Wellins (2002)

Despite of its flat organizational structure that implies limited upward promotion opportunities, Company B strategically designed its training programs to retain HRs. Before introducing training programs in this European MNC, training need analysis is carried out to properly identify only the necessary training or re-skilling required to better aligned with future plans and other critical systems. Company B is widely recognized for its comprehensive training and efficient coaching. It allows steep learning curve and creates high performing HRs equipped with five-year practical hands on experience only in three years. Because of these excellent learning opportunities and futuristic development, Malaysian workforce is generally attracted to their continuous employment at Company B. About 20 percent of the talented HRs are sent to high quality personal development programs, some conducted abroad that are relevant to their future job assignment. This is much to their delight considering the popularity and hefty cost of such high-quality training. As for retention of senior staff, Company B that places great importance on continuous learning designed six-month or one-year oversea posting-cum-training programs that not only broaden one's international exposure but also help to get senior employees refreshed. Interestingly, these programs are connected with other foreign subsidiaries of this European MNC. Therefore, the longer the talented HRs continue to work for Company B, the more they could learn and thus, the better their marketability become.

Compared to other four participating rivals, one unique feature of training strategy of Company C is its cost-effective and self-directed cross-sectional training in which ambitious and potential employees volunteer their participation to gain more exposure, even though there is no monetary incentive involved. Apart from these benefits, voluntary participation gives employees the chance to demonstrate their talents to the management. Job rotation and change of work content are carried out with new product developments. Avoiding overemphasis of compensation in retaining senior employees, Company C sends high-performing senior employees for oversea posting or foreign assignment that may immeasurably enhance their competency. In addition, Company C provides senior employees with training on development of soft skills and long-range skills (strategic decision making, global understanding) pertinent to its long-term goals. It even sponsors high-performing HRs and senior employees with full educational scholarship (MBA course) with two-year contract. In cases whereby reimbursement is below a fixed value, it is without any legal binding.

Training at two local companies (Companies D and E) mainly covered job-specific training program although Company D occasionally send employees to local training institution for personal development such as leadership and time management. While training effort is improving in these two companies, insufficient investment for long-term requirement apparently made them less attractive to HRs. This is partly attributable to the general notion among Malaysian firms that training beyond contractual scope of work should be shouldered by employees. To encourage Malaysian firms to better-equip their employees and thereby creating a competitive workforce, Malaysian government introduced HR Development Fund Act in 1992 whereby employer contribution of one percent monthly payroll could be reimbursed for 70 percent of the training cost. However, Malaysian government later increased the claimable to full reimbursement owing to the poor initial response of Malaysian firms in HR investment. There may be reluctance on the part of Malaysian companies to extensively train HRs, knowing that training improves market value of employees and may lead to high tendency of job-hopping that necessitates offering of better pay packages to retain employees. Generally, both the better home-grown Malaysian firms and foreign MNCs take training seriously while firms with less proactive attitude towards HR development approach training on a need-to basis (Yong, 2003).

While excellent training programs are effective in attract, motivate, and retain talented HRs, inherent issue such as poaching is unavoidable. As mentioned earlier, Company A was viewed at a free training center, and rival

firms just waited to poach its trainees. Company B is famous for its comprehensive and efficient training. This has attracted serious poaching and employees, at times, left in groups. The loss of valuable HRs owing to drastic poaching has forced Company B to contractually bind its employees especially when investing in expensive training programs conducted by famous overseas trainers. In contrast, a US MNC of Company C that chose not to contractually bind employees preferred to trust its employees. More surprisingly, Company C did not experience loss of talented HRs as severe as Company B (European MNC) despite its stance. The closest logic behind this difference could be due to successful assimilation of strong organizational culture in Company B. According to the statements of two personnel at Company B, there were many cases whereby former employees of Company B who left for better offers elsewhere returned later to request for reemployment.

#### **Performance Appraisal**

Performance appraisal (PA) is the process of identifying, measuring, and developing human performance that serve three major organizational purposes: administration, development, and communication (Butler, Ferris & Napier, 1991). Data collected in on-site interviews showed pertinent differences are analyzed and summarized in Table 8. While PA is used for similar purposes to varying degrees at all five companies, more importantly is the way PA is integrated in design and practice with other HR measures to effectively serve organizational priorities. The data point to the existence of some cultural differences in the perception of performance management and the organizational role of PA.

Practicing PFPS may attract high achievers; however, PFPS can be a risky proposition if not done properly. For reward programs to be as successful as possible, employees must understand what is expected of them and how performance is measuring up to goals. Recognizing this, Companies A, B, and C strategically designed and implemented their sophisticated PA to be an integral part of SHRMSs to support organizational effectiveness. PA is used extensively for communication (performance management and review frequency), administration (salary and promotion decisions), and development (training and re-skilling). For instance, these three companies used PA for performance management more extensively than the remaining two companies by providing ongoing feedback and taking immediate remedy for work improvement as well as updating employees with corporate directions. In addition, given the strong performance-reward tie and its inherent sensitiveness on distribution of rewards, these former companies designed PA systems with detailed descriptions and quantitative measures to facilitate fair salary decision.

Conversely, domestic firms are comparatively more relationship-oriented. Thus, Companies D and E tend to handle their basic PA systems less formally, and implement less objective PA that are less clearly articulated than the three MNCs. These companies utilize mainly qualitative-oriented PA measure to arrive at salary decisions. This variance is further supported by the distinctive difference observed in their neither standardized nor precise measurement criteria. In spite of using PA primarily for feedback, Companies D and E tend to handle feedback indirectly and less formally considering the cultural significance of keeping harmonious relationships and traditional concept of face-saving (Abdullah, 2001).

Following the parent company's HRM practices in Japan, Company A pursued PA systems that used to have subjective appraisal, unclear, and unrealistic targets that were set by superiors without mutual discussion or agreement. In its effort to be organizationally effective as well as to design a global corporate standard, Company A did away with top-down decision-making, and started to involve employees in operational and performance-related decisions. PA was transformed into one that is fair, transparent, objective, and measurable. It is also closely integrated with the new performance management system so as to provide accurate and reliable PA results.

Another interesting finding is that management priorities are reflected in the usage of PA. My interviews revealed that the three foreign companies that are more willing to invest extensively in HR development tend to use PA extensively for their identification of future training needs. The two Malaysian companies, however, are relatively more concerned with production outcomes, and tend to use PA more for the purpose of performance management than for identification of training needs.

TABLE 8: STRATEGIC PRACTICES AND APPLICATIONS OF PA SYSTEMS

Policies and Procedures	Companies of Personal Care Industry				
	Company A	Company B	Company C	Company D	Company E
<i>Purpose and Applications of PA</i>					
Performance management	Extensively; Formally	Extensively; Formally	Extensively; Formally	Moderately; Less formally	Moderately; Less formally
Salary decision	Objective; Detailed; Quantitative	Objective; Detailed; Quantitative	Objective; Detailed; Quantitative	Subjective; Qualitative	Subjective; Qualitative
Promotion decisions	Extensively	Extensively	Extensively	Rarely	Moderately
Development	Moderately	Extensively	Extensively	Rare-Moderately	Rarely
<i>Measurement Criteria</i>					
Orientation	Performance-driven; seniority at minimum	Highly performance-driven	Highly performance-driven	60: 40 ratio of performance-seniority	Performance-driven
Measurement criteria	Detailed; Standardized criteria are job-specific; Comprehensive	Detailed; Standardized criteria are job-specific; Comprehensive; Recently put more focus to global result	Detailed; Standardized criteria are job-specific; Comprehensive	Simple; No standardized criteria for job nor skills; Mainly narrative essay; Emphasis on the "hows".	Simple; No standardized criteria for job – only for overall skills. Mainly narrative essay.
<i>Participation</i>					
Goal-setting, KPI (subordinate or superior)	Set by both parties	Set by both parties	Set by both parties	Set by both parties	Set by firm.
Appraisal parties (subordinate or superior)	Both parties; Twice of the self-appraisal		Both parties	Both parties	Superior
<i>Transparency</i>					
Measurement criteria	Disclosed	Disclosed	Disclosed	Disclosed	Disclosed
Appraisal result	Disclosed	Disclosed	Disclosed	Disclosed	Disclosed
Avenue for negotiation	Available	Available	Available	Available	Not formally available
<i>Monitoring and Control for Accuracy</i>					
Review of goals, KPI and redefinition	Twice a year	Twice a year	Twice a year	Once a year	None
Frequency of performance review	Twice a year	Twice a year but on quarterly basis for talented HR	Twice a year but more for talented HR	Once a year	Once a year
Trained assessors	Trained	Trained	Trained	Not trained	Not trained
Parties involved	Department Head	HRD	HRD	None	Three directors
HR Monitoring	Not in practice	In practice Close supervision	In practice Close supervision	Not in practice	Not in practice

Except for Company E (a Malaysian local), participation in goal-setting are somewhat similar across all companies in this case study. Company E decides the goals and delegates the key performance index (KPI) to superior. Company A encourages employees to set their own KPI twice a year of which are later discussed with superior for agreement. Concerning the degree of transparency, all five companies reflected high degree of

transparency although Company E prefer not to formalize avenue for grievance and negotiation since it concerned that formalization may proliferate complaints.

As part of the attempt to uphold the validity, reliability, and credibility of PA systems, Companies A, B, and C seem to put more serious efforts on monitoring and control: assessors are trained, and goals and KPI are reviewed and readjusted twice a year in response to external and internal forces. PA at Companies B and C are performed under close supervision of HR department, in particular the latter, taking proactive approach to screen appraisal results for irregularity, unfairness or favoritism even when no complaints are raised. Table 9 explains the management of different performers as well as the backward learning of Company C as an attempt to avoid repeated selection mistakes.

TABLE 9: STRATEGIC ACTIONS OF COMPANY C

Appraisal	Categorization	Strategic Action
9	Excellent performer	Good and excellent performers are given extra attention in coaching, training and widening job specification that may be value-added for succession planning.
7 and 8	Good performer	
4, 5 and 6	Average performer	Provide constructive feedback on the areas that average performers need to improve. Revision of work content and measurement criteria to create fairness in the system though there is no fixed revision period: <ul style="list-style-type: none"> <li>1) Revision depends on source of poor performance in particular, those that tend to significantly affect business such as skills, priority management and others.</li> <li>2) Provide opportunity for improvement to average performers</li> </ul> Monitoring is also practiced to track and note details of average performers with the purpose of improving selection skills during staff recruitment as part of the attempt to avoid employing average performers.
3	Low performer	Non-performers may have a high tendency to leave Company C in a year. This could be due to inability to deliver contractual job requirement; mismatch between organizational and personal values; and poor selection.
1 and 2	Non performer	

### Promotion and Career Advancement

Promotion and career advancement play crucial roles in retaining and motivating talented HRs. In general, all five participating companies practice performance-based promotion to varying degrees. Excellent performance and consistent proven track records are necessary recipes for promotion considerations in Companies A, B, and C. In general, PA is utilized to enable sound promotion decisions. Another formal approach to facilitate promotion decisions at Companies A and B is their formal performance management, with two and four reviews a year, respectively. Despite Company B's flat organizational structure that generally implies limited upward promotion opportunities, this European MNC managed to retain many valuable HRs through its successful attempt in minimizing discouragement. To overcome this structural shortcomings so as to meet the needs of its highly achievement-oriented HRs, Company B offers long-term career plan by sending high performing senior for oversea posting or top designation previously occupied by expatriates through its localization effort. In addition to offering lucrative pay and extensive training to retain HRs, Company B also exposes talented HRs to challenging projects as a substitution to limited promotion opportunities since this strategy helps to satisfy the need for self-actualization of its employees.

Company C supports internal talent mobility and makes extensive use of internal candidates when filling vacancies at leadership level. Advancement opportunities available in Company C are such as oversea posting, upward and lateral promotion. This US MNC makes serious efforts in embarking on succession planning, an ongoing activity to identify and develop tomorrow's HRs from current pool of talents. Under this program, Company C reviews the competencies deemed critical for managerial positions and assessed current skill levels of talented HRs in these competencies in order to determine the appropriate extra training that could best maximize their potentials. The performance of talented HRs is closely monitored with four reviews a year. Such serious effort

gives a sense of comfort to them in that, they may have a promising future in Company C since their career advancement are taken care which further reinforces their organizational commitment.

Before doing away with the parent company's HRM system in Japan in 2001, Company A previously practiced guaranteed seniority promotion system that promoted HR in lock-step, time-consuming fashion. This conventional practice considered employee's age and years of service. However, given that fresh graduates who perform well tend to get their first promotion after three years of service in Malaysia as well as the changing social values of workforce, the conventional promotion practice became a threat to organizational effectiveness and performance. High performers left for firms that reward rapid advancement, whereas less competitive HRs continued to stay. According to top personnel of Company A, most of those excellent HRs that left Company A for better career development elsewhere are currently directors of well-established companies, an fast-track upward advancement that could hardly happen in the conventional system. With the adoption of new HRM systems, Company A takes an active role in identifying talented HRs and tracking performance for promotion decisions. Moreover, performance management system that was introduced to effectively manage performance process (short-term and mid-term objectives with clear descriptions on the "what", "when" and "how") also assisted in performance tracking exercise.

While foreign companies in this study proactively and creatively use promotion to retain talented HRs, Companies D and E (Malaysians) adopt the traditional concept of career management with relatively more element of seniority influencing promotion decisions whereby promotion takes place as some form of progression through a vertical ladder of positions but with somewhat similar responsibilities. Aligned with its high emphasis for seniority-performance wage system (40:60), Company D that favors internal promotion mainly promotes from within. Top management positions at Company E are mainly held by family members.

Other forms of strategies besides those mentioned above should also be considered for staff retention. In the case of Company C, it created job enrichment program for senior employees that includes job rotation, cross-functional moves and sanctioning more diverse career paths. Other related interventions are such as succession planning, problem solving task force, delegating challenging yet enjoyable assignments to help keep their work meaningful and interesting.

## **SHRMSs to Fostering In-Role and Extra-Role Behaviors**

While having strong retention strategy is considered important for organizational effectiveness of firms, it is also vital to have appropriate HRM strategy to elicit both in-role and extra-role behaviors among employees. In-role behavior points to the one in line with and within the range of contractual requirement for each employee. Extra-role behavior is said to be exerted voluntarily beyond contractual requirement (Organ, 1988). Recent studies tend to see organizational citizenship behavior (OCB) as a typical extra-role behavior. OCB is considered as part of work-related activities performed by employees that contribute to organizational effectiveness, and yet are beyond the regular scope of job descriptions and contractual sanctions or incentives. Moreover, although many organizations desire employees to exhibit OCB, they cannot force or punish those who do not show such behaviors since these behaviors are neither legally binding nor in-role behaviors.

Past research (Yong, 1996) revealed that in general, Malaysian firms whose HR department is more administrative-oriented are less concerned with OCB as they simply focused on productivity and sales revenue that are more visible and on short-term bases. Consistent with this general finding, most of the HRM strategies in Companies D and E are designed more for aiming at attaining some other purposes (especially, lowering personnel expenses) than for enhancing employees' sense of OCB. Even though HRM practices in these companies reflect resemblance to some basic Western HRM, their HRM practices are not developed to maximize on its benefits owing to their administrative nature. Their efforts to promote OCB are less sophisticated and less concerted than those of other three companies. In particular, their approaches are neither clearly defined nor articulated even though they recognize much importance of employee motivation in firms' productivity increase.

Despite the lack of formality commonly found in Western HRM, Companies D and E attempted to promote employees' OCB to a lesser extent by mainly adopting the indigenous way; that is, increasing relational exchanges

among employees. Perhaps, the adoption of such strategy by Malaysian local companies could be closely related to accommodative Malaysian societal values that tend to keep written rules to the minimum extent in order to maintain the flexibility for special arrangement that are beyond written corporate regulations. Malaysian is a people-oriented society that tends to be less formal in carrying out task. It is common for top management to treat employees amenable and to create a family-like workplace. These two Malaysian companies hold the similar values, and thus tended to recognize employee efforts more informally and more personally.

Here are a few examples of lax practices that are appreciated by employees of Company D. For instance, while employees of Western companies are expected to perform beyond set expectation to be perceived as acceptable, employees in Companies D are comfortable working there since they shall perform only according to expectation set. Moreover, employees in Company D do not have to go through layers of formal upward channels to get approval for personal time off and during work hours. Further, work environment is family-oriented and status is least emphasized. Since rules are not strictly enforced, Company D does not take disciplinary actions on rule breakers unless those employees' behavior seriously jeopardizes their moral.

Offering competitive compensation packages is considered important for enhancing employees' OCB. Equally important is, however, to offer compensation packages that are fairly perceived by employees. This requires careful management of both distributive and procedural fairness as perceived by employees. To achieve distributive fairness, it is vital to ensure fairly distributed incentive system by continually crafting compensation packages that reflect precise and accurate market data. As for managing procedural fairness, it is important for firms to ensure clearly defined roadmap in performance management process with ongoing reviews as well as fair and transparent PA in which performance is measurable and acceptably link to reward systems. By doing so, firms may significantly increase hiring and retention rates as well as fostering OCB. Most of the firms in this case study attempt to fulfill these requirements.

To achieve retention through, employee development, Company B shows serious commitment to develop HRs by integrating training throughout the organization and by allocating incentives to superiors who proactively provide close mentoring that helps subordinates to develop the right competencies. Company B also provides recognition to talented HRs by enlisting them in presentation team at board committee meetings. Such efforts may further encourage employees to display in-role and extra-role behaviors. Company B, an European MNC, also tries to promote employee commitment and OCB by recognizing the need to balance work and family life of each employee. Employees of all levels are not encouraged to spend long hours at the office after official hours. Such practice is particularly appreciated by talented female employees who are career-minded, since it makes it possible for them to play dual roles effectively.

Self-directed cross-sectional training in Company C that enhances employee participation and that promotes sense of achievement can further help to strengthen their sense of affiliation with company, given the high degree of empowerment and solicitation of ideas. Because of the ability of such training to meet intrinsic needs of talented HRs, it is attractive even in the absence of monetary incentives. Most notably, Company C, a US MNC, takes proactive stance to monitoring appraisal results for any irregularity or possible favoritism even when no complaints are filed. In the event of suspicious results, respective departments would be investigated, and failing to receive a satisfactory explanation from appraisers requires readjustment of appraisal result. Such extra and genuine efforts made by Company C may not only give its employees a sense of fairness but also help to promote OCB. The efforts of Company B and C in creating flexible benefit scheme that customizes rewards and benefits (cafeteria-style benefit system) to better meet specific needs of employees that may further boost their motivation and intentions to stay.

Trust has the potential to inspire employees to go beyond what is required of them to best promote the welfare of the whole organization. All five companies attempt to promote distributive and procedural fairness among employees to help generate organizational trust in employees. In their efforts to promote organizational trust, Companies A, B, and C (Japanese, European, and US MNCs, respectively) strive to create an open culture where financial and performance information is accessible. Salary decisions and PA results are highly transparent, and management action at the top and middle levels could be questioned by employees for clarification and understanding of organizational goals and purposes. Salary decisions are highly objective and quantitative-oriented in the three foreign companies. Companies A (Japanese) and D (Malaysian) did away with punch card system to

exhibit trust in their employees. Certain benefits that were once only eligible for upper management at Companies A, C, and D were extended to executives. All these efforts are also made to reduce status distinctions. Company D also extends financial and performance information to production workers once a month to create organizational awareness and to promote OCB among employees.

Organizational culture is also important in achieving organizational effectiveness. Coupled with other strategic HR practices, Company C, a US MNC, tries to create informal work environment and atmosphere for the purpose of delegating more empowerment and authority to young employees. Company C also put less emphasis on structural status. By extending the hospitalization benefits that were once only eligible to rank-and-file employees to all employees, Company C not only aligned with its credo to promote and demonstrate fairness but also responded to the changing work values of younger workforce that do not prefer repetitive reminders and instructions. According to the statements of two personnel at Company C, there were many cases in which former employees who left for better offers requested reemployment at Company C as a result of deep attachment to its organizational culture. In fact, its former employees often hold social gathering to keep the networking. Both Companies B and C put in efforts to balance the pay and job satisfaction (concern for level of job fulfillment) of employees to ensure that the people they hire are a good match for the job and the work culture.

Besides making information access easy and transparent, Company B that recognizes and formally deals with the importance of cooperative and trusting work environment also fosters open communication. This open culture helps employees to maintain friendly working relationship by facilitating a truly open environment to solve work conflict as well as to clear up misunderstandings without fear for subsequent retaliation.

As for Company A (a Japanese MNC), various meetings are held at Company A to elicit input from employees to improve organizational effectiveness. Meetings are frequently held to address or resolve issues. This form of employee participation considers views from all angles, and further strengthens employer-employee relationship. Company A also implicitly practices lifetime employment practices. Company A attributes poor performance to insufficient training, incompetence, or poor person-job fit. In the first two cases, poor performers are given retraining and ample chances to prove their work ability. In the case of poor person-job fit, Company A reallocates more suitable jobs to poor performers in its effort to avoid layoff. Therefore, Company A does not take as strict a stance as western practitioners on terminating employment of poor-performing employees. However, in the event of unavoidable layoff, it adopts 'last-in-first-out' policy to ensure long-serving employees are given more priorities in securing employment within Company A. Further, Company A places great importance on orientation for new recruits to foster family-like atmosphere and helping spirit, which eventually serve as enhancing OCB among employees in this Japanese MNC.

## Summary

While Western HRM practices are widely adopted to a varying degree in Malaysia, the country-origin of MNC is still an important factor which shaped the platforms as to how a firm can strategically manage their human resources to foster staff retention and in-role and extra role behaviors of employees. Although to a minimum extent, Company A, a Japanese MNC, still maintained certain practices of parent company after redesigning its home-made HRM system to the one that resembles Western management styles. Malaysian companies implement Western HRM practices under strong indigenous influence and somewhat lax practices.

This comparative investigation shows that, while a competitive compensation package is able to attract, motivate, and retain employees in a short period of time, it is not a silver bullet. Heavy reliance on it will only result in constantly spiraling outlay that is costly with limited success. Nevertheless, along with close integration of other complementary HR practices, outstanding companies tried to use a combination of interventional strategies to capture the full essence of their HRs to the greatest advantage. This comparative study notes that foreign companies holistically integrated their strategic HR practices to attract, motivate, and retain employees. Great emphases each firm made on managing Malaysian people could be observed in their serious attention on introducing complementary practices such as strategic hiring, simulation of organizational culture, extensive training, and succession planning.

As shown in Table 10, Malaysian-owned companies were one of those that scored the highest turnover rate of executives for 2002 (16.68%), followed by companies with ownership from US., UK/ Europe, and Japan. This result may imply that, along with other Asian countries, Malaysian companies are not as effectively as other Malaysian-based foreign firms in securing and retaining HRs. Findings in the current study supported this notion, showing that while Malaysian firms tend to adopt Western HRM style, they greatly lack the concrete action plans as well as the critical integrations for staff retention and effective increase of in-role and extra-role behaviors.

TABLE 10: EMPLOYEE TURNOVER RATE FOR EXECUTIVES 2002.

Source of Capital Ownership	Yearly Employee Turnover Rate for Executives (2002) (in percentage)				
	No. of Companies.	Average	Lower Quartile	Median	Upper Quartile
Malaysia	159	16.68	3.36	11.16	22.56
Japan	37	10.08	0.00	8.64	15.96
Other Asian Countries	13	20.40	5.16	11.04	35.28
UK/Europe	29	10.32	3.60	7.92	16.68
USA	19	14.40	8.04	11.16	24.96
Other Countries	14	9.84	4.20	10.08	14.64
TOTAL	271	14.76	3.48	10.44	19.20

Source: MEF, 2003, pp. 35

It can be concluded that, despite the wide adoption of Western HRM practices, the retention and motivation strategies of Malaysian firms in this case study are still lagging behind the strategic HR practices used by foreign MNCs. This is partly due to their little recognition for close integration of business and HRM in attract, motivate, and retain a considerable number of high-performing HRs. On the other hand, it can also be argued that, while recognizing the long run benefit of strategic HR practices of those foreign firms, Malaysian firms in this study still chose to operate within their firm affordability. They also did follow cost reduction strategies that inhibit them from adapting more effectively to cope with societal changes in Malaysia. After all, most of its functional strategies in each department are nothing but protecting losses and lowering costs, which can simply improve some accounting data in these companies.

Based on the comparisons of the collected data, I found that the HRM practices in these Malaysian firms are less sophisticated or competitive that other counterparts from US, Europe, and Japan. However, it is never the intention of this study to imply that traditional work practices of these Malaysian firms are, in any way, less sound in organizational effectiveness, since types of such administrative HR practices used in Malaysian locals are still considered appropriate under their strategic contexts. In particular, the administrative HRM practices used in these local firms would be fitting into the overall business strategy of cost reduction pursued by them. In this sense, the links between HRM strategy and competitive strategy are maintained to a certain extent, and they have some advantages in competitions in Malaysian markets. Further, introduction of organizational changes that require careful design may disrupt their greatly emphasized economies of scale and profitability. Indigenous ways to attract, motivate, and retain talented HRs may have been highly effective several decades ago. The question is how Malaysian domestic firms respond well to the changing work values and competitive environments surrounding them, when Western and Japanese MNCs come to take leading initiatives in the market competitions in Malaysia.

Nevertheless, it is also necessary to keep abreast with the rapid social and economic changes by replacing outdated practices or more importantly, developing better practices. Offering fringe benefits that mainly adhere to legislation is no longer sufficient to attract, motivate, and retain talented HRs. It is particular true when unsatisfied parties exist. Even Company A, a Japanese MNC, had to go through massive changes to create congruent motivational effects after realizing its initial introduction of seniority practices from Japan that were then pertinent and effective in staff retention which eventually became a source of competitive disadvantages to them. Company A re-examined the role, focus, and function of seniority systems within the Malaysian subsidiary, and redefined its HR mission to shift from an administrative role to a strategic one that focused on business needs.

If they intend to create competitive advantage through its workforce, they need to refocus on training and recognize that well-directed investment in recruiting and training will yield far better long-term results than short-term job-specific training. These firms need to take more responsibility for enhancing talents within their own organization. It is a mere suggestion that these firms need to become more holistically responsive to the pace of change, if they intend to compete aggressively with rival firms to attract, motivate, and retain talented HRs in an increasingly turbulent environment. The first step could be the redefinition of staffing roles and required competencies in order to free up internal HR personnel from day-to-day administration activities and to utilize their talents for more value-added purposes. In order to stay competitive, Malaysian companies may want to reconsider the roles of their HR department within the organization.

## Conclusion

In an effort to exploring the distinctive features of HRM across companies with different country origins and cultural values, this paper has analyzed and compared SHRMSs used by five personal care companies that can attract, motivate, and retain talented HRs. Findings showed that significant differences in the HR practices across the five companies exist to attain strong organizational effectiveness. This paper also demonstrated that while a focus on competitive pay packages to attract, motivate, and retain talented HRs is clearly effective in the Malaysian workforce that highly desire monetary rewards, it is also important to combine with other strategic HR practices to further enhance retention strategy and organizational effectiveness as well as to meet various needs of potential talented HRs in Malaysian labor markets. Above all, this article showed the application aspect of well-integrated strategic HR practices – not just “what,” but also “how” to achieve closely integrated complementary HR practices that create synergies for firms.

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### **End Notes**

The fieldwork is based on research and multiple interviews carried out in Kuala Lumpur, Malaysia from mid 2003 to early 2004. I would like to take this opportunity to acknowledge the contribution and generous support of all five companies that made the comparative study across MNCs of different country-origin possible and meaningful in the personal care industry.

# **Embracing Kaizen: Towards Improving Management Performance and Manpower Competitiveness**

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## **Abstract**

The impact of “kaizen” on organizational parameters cannot be underestimated. The voluminous literature on this “continuous improvement” philosophy expounds on its positive impact on various spheres of the organization, be it business, corporate, or otherwise. This paper explores the myriad applications of kaizen in the organizational milieu. Specifically, the discussion converges on the impact of kaizen on certain organizational outcomes and how the management can play proactive roles in its development and ultimately, imbibe among employees the culture of continuous improvement. The flow of discussion begins with a review of the concept of kaizen, how it emerged in the research and business environment, and introduces kaizen gurus and their principles. In the final part of the paper, the authors discuss what the management can do to cultivate the culture of kaizen and make it thrive in the organization, with the end that kaizen becomes a personal philosophy and practice.

## **Introduction**

If it were not for change, a manager’s job would be relatively easy. Planning could be so simple because it is based on historical events where tomorrow would be no different from today (Robbins et al., 1999). In addition, decision-making would be very streamlined because the result of every alternative taken in decision-making could be predicted with almost certain accuracy. However, this is not the way things work. Today’s environment is full of uncertainty; market changes, changing workforce demographics, political and also social pressures and mostly certainly advancement in technology make today’s organization one of constant changes (Savery et al., 2000).

Organization in the global market place will, therefore, need to have tremendous and continuous improvements. A growing number of businesses are going multinational to strategically position themselves in global market and worldwide manufacturing operation. These new markets demands for new products to match specific consumer needs requiring customization of products or even altering an entire product line (Kumar and Harms, 2004). Consequently organization need to identify improvement and change opportunities in the working systems. However, organizational leaders thought change and improvement were an event (Kanter, 1991). However, change and improvement is now viewed as an ongoing process triggered by multiple variables (Grieves, 2000). It has become so discontinuous and transformational that it is leading to a distinct shift in the nature of managerial work (Doyle, 2000). Managers at all levels, but more specifically those at the middle level, must be constantly being reminded of their role and their influence in respect to organizational performance. Leading organizations spend 20 per cent of effort on formulating and 80 per cent on the implementation of change and the benefits are accrued from the ability to embrace change more quickly and effectively than competitors (Samson et al, 2000).

With this scenario, we can say that today’s competitive environments require organizational to pursue continuous improvement in their work process; continuous improvement requires effective managerial performance; effective managerial performance requires appropriate skills and behavior. Appropriate skills and behavior development are facilitated through appropriate and effective management development activities.

## **The Concept of Kaizen**

Kaizen or continuous improvement (CI) as it is casually translated in English, is an important key element in

Japanese management. This principle is often cited as one of the underlying principles in achieving organization efficiency and quality management. Boer, Berger, Chapman and Gertsen (2000) defined as "the planned, organized and systematic process of ongoing, incremental and company-wide change of existing practices aimed at improving company performance. Bessant, Caffyn, Gilbert and Harding (1994) defined it as a company-wide process of focused and continuous incremental innovation sustained over a long period of time. Masaki Imai (1986), the first well-known proponent of *kaizen*, who wrote *KAIZEN - The Key to Japan's Competitive Success*, outlined this Kaizen concept, its core values and principles, its relation to other concepts and the practices used in the improvement process. The practice of Kaizen is simple and straight forward, whereby, every member in an organization should improve their performance by continuously looking and implementing small changes in their everyday work processes. It also encourage individuals at all levels in the organization to identify problems and proposing solutions for a particular problem. In short, Imai claims that the ability to motivate employees to undertake small, incremental improvement to shop-floor activities constitutes to the gist of Japanese manufacturing excellence.

But Kaizen did not gain popularity in the United States until 1986 (Henricks, 1996), with the publication from Imai. Imai contended that by constantly seeking out small opportunities for improvement, Japanese companies were becoming much more superior than their American counterparts. The idea of this Japanese secret caught many American businessman by surprise. Hence, a closely related concept to Kaizen – Total Quality Management (TQM)-gained its popularity. In this relation, continues improvement is also one of the goals of TQM. However, TQM is quite technical, stressing on all kinds of tools and techniques ranging from array of charts to graphs (Henricks, 1996). However, Kaizen is more philosophical.

As Hendricks (1996) mentioned, Kaizen focuses on improving processes instead of results. In this case, a kaizen practitioner aim to improve the organization's decision making tools without necessarily trying to make a better decision on a matter encountered that day. He continued by saying that kaizen aims to improve systems and not people. In a Kaizen company, making a mistake is not an occasion to blame the person who made it. Instead, it is considered a chance to find out what is wrong with the process

Skymark (2005) suggested that Kaizen can be implemented in corporations by improving every aspect of a business process in a step by step approach, while gradually developing employee skills through training education and increased involvement. The principle in Kaizen implementation are:

- i. human resources are the most important company asset,
- ii. processes must evolve by gradual improvement rather than radical changes,
- iii. improvement must be based on statistical/quantitative evaluation of process performance.

Skymark (2005) concluded that Support throughout the entire structure is necessary to become successful at developing a strong Kaizen approach. Management as well as workers need to believe in the Kaizen idea and strive toward obtaining the small goals in order to reach overall success. Therefore, all members of an organization need to be trained in a manner to support this idea structure. Resources, measurements, rewards, and incentives all need to be aligned to and working with the Kaizen structure of ideas.

Brunet and New (2003) found that the form taken by *kaizen* within an organization may adapt over time, and reflects the changing environmental conditions. They also argued that *kaizen* allows for the management of complexity in the management of target-oriented operations. They illustrates their argument through the schematic model in Fig 1. The figure shows a system of four adjustment cycles in the planning and realization of strategic goals. Individual members perform their routine tasks under individual control (continuous) against production plans, internal team control (usually weekly) and external control by middle management (usually monthly) and being reinforced by team capabilities

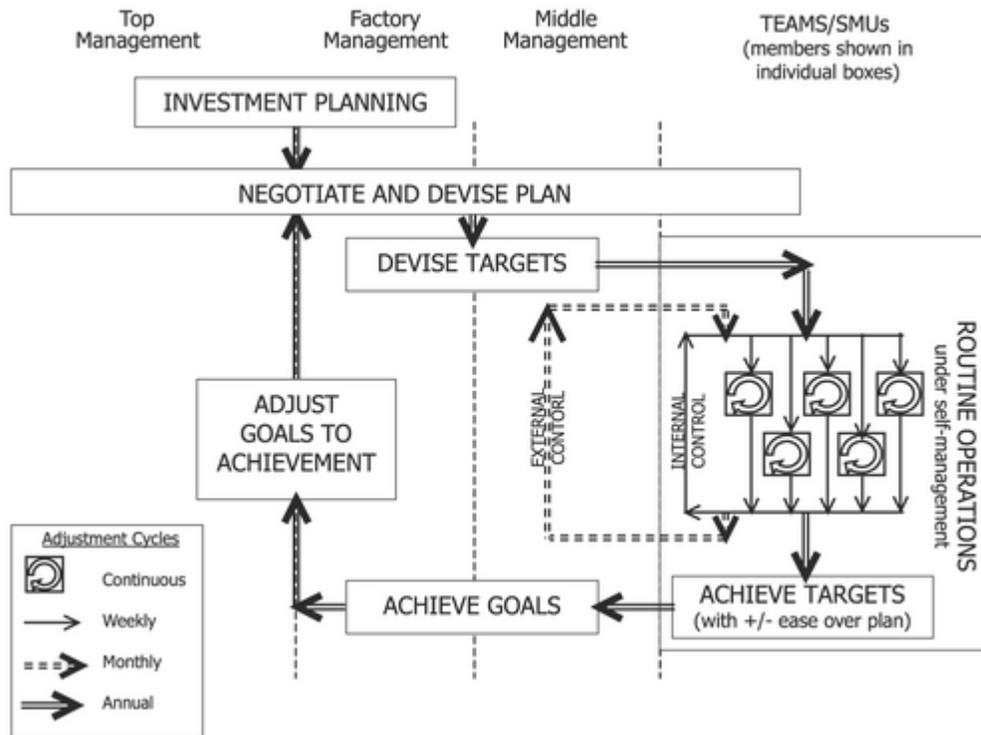


FIG. 1: KAIZEN FACILITATED ADJUSTMENT SYSTEM TO MAINTAIN OPERATIONS ON TARGET (ADAPTED FROM BRUNET AND NEW, 2003)

Brunet and New (2003) also cited that the concept of Kaizen is regularly being misinterpreted as either an endless improvements which emerge from the workers or as the mundane application of suggestion schemes and quality circles. They suggest that the concept of Kaizen focuses on three main points:

- i. Kaizen is continuous - which is used to signify both the embedded nature of the practice and also its place in a never-ending journey towards quality and efficiency
- ii. Kaizen is incremental in nature, in contrast to major management initiated reorganizations or technological innovation
- iii. Kaizen is participative, entailing the involvement and intelligence of the work force, generating intrinsic psychological and quality of work-life benefits for employees

Based on Japanese experiences, Berger (1997) described the characteristics of kaizen at two different levels. The first level he said, is concerned with the management improvement concepts that indicate a mind-set for the required management behavior, whereas the second level describes the practical outcomes for the workforce. In this relation, he also cited that the characteristics of an ideal kaizen lies on three main principles as follows:

- i. Principle 1. Kaizen is process-oriented. Before results can be improved, processes must be improved. Kaizen does *not* state that results are of minor importance, but rather that management attention should be directed towards creating sound processes since it is assumed that good results will follow automatically. The principle has at least two practical consequences for the improvement process. First, management's main responsibility is to stimulate and support the effort of organizational members to improve processes. Second, process-orientation calls for evaluating criteria which can monitor and bring attention to the improvement process itself, while simultaneously acknowledging its outcome

- ii. Principle 2. Kaizen is distinctive in its focus on small improvements of work standards as a result of an ongoing effort. The standard should be binding on everyone, and it is management's job to see that everyone works in accordance with the established standards
- iii. Principle 3. Kaizen *is* people-oriented and should involve everyone in the organization from top management to workers at the shop floor. In order for everyone to be involved, there needs to be a form and a content for ongoing improvements that make use of everyone's contribution.

Gondhalekar , Babu and Godrej (1995) conducted a study in India and uncovered a number of interesting features about factors to be considered for steering Kaizen mission in the company. They summarized these factors as follows:

- i. People with a strong and positive self-image are likely to make more and better continuous improvements in their working environment
- ii. Age is found to influence only stability and reach of benefit. The middle age phase of maturity appears to be giving confidence to experiment more heavily and find kaizen with wider reach of benefits.
- iii. People receiving recognition from management are found to bring up more original ideas and invite participation of more people. They are also seeking more self-development type of *kaizen*. This indicates that the need for recognition drives a search for originality and wider contribution in self-development oriented kaizen.
- iv. Those employees who are desk-bound have a better kaizen record due to the nature of their work
- v. Education is found to be a factor that enhance improvement orientation. They strongly recommend that organizations devote time and energy to provide for lifelong formal education for all employees in the organization.
- vi. Good communication ability is found to be essential in implementing kaizen. This is essential especially when they communicate for instructional purposes (Elsey and Fujiwara, 2000)
- vii. People with good reading habits are found to be more inclined to self-development and improvement.

They also suggested that, although employees are encourage to participate continuously in making improvements, restrictions, however, should be imposed during the process of making improvements. They outline two types of restriction as follows;

- i. The financial investment for making any improvement should not exceed US\$40.
- ii. Substantial financial rewards should not be extended to any employee for making an improvement, however much the monetary saving accruing from the improvements may be.

Gondhalekar and Karamchandani (1994) too agreed that the freedom for implementing improvement should also be check and monitored. This is to ensure that the empowerment given for making such improvement is not misused. They listed the conditions as follows:

- i. All changes and improvements made must be reported after implementation.
- ii. All existing rules and regulations must be followed while implementing improvements. If existing regulations require prior sanctions to be taken, then such sanctions must be taken in advance.
- iii. The improvements should be made with zero investment.
- iv. Monetary rewards are not given for the improvements. Non-monetary awards, like token gifts, and all kinds of recognition, are welcome and provided to those reporting good improvements. This is because monetary rewards stimulate jealousy and destructive competition.

The ultimate aim of any Kaizen implementation is to strive for customer satisfaction and involvement. Customers are the reasons why organizations exist. They bring revenue and profits to organizations. In this relation any improvements either in the product offered or in the service provide that does not meet their overall needs and expectations will be a total waste of time. In other words customer satisfaction (Jabnoun, 2001) and loyalty should therefore be the ultimate objective of any improvements made in the organization. In this respect, Jabnoun (2001) listed several driving values that impel people to be committed to customer satisfaction and hence, continuous improvement. These factors are as follows:

- i. **Respect:** Respect for individuals as a foundation for total quality improvement (Mehta, 1999). Respecting customers means listening to them, communicating with them kindly and making sure that our products or services offered match their levels expectations. As a result employees will be committed to improving their levels services to meet customers' varying needs and wants.
- ii. **Responsibility:** Highly responsible people are innovative and committed to the performance of their assigned jobs, comply with orders and directives of superiors, and do not swerve away from doing what they are supposed to do by any distraction. People with self-instilled responsibility are worthy of being empowered by their superiors. Their commitment to their jobs and to their customers enables them to effectively pursue continuous improvement
- iii. **Empathy:** Empathetic people strive to satisfy their customers. They will have a sense of guilt and outrage for any failure to meet expectations of their customers; external or internal. To delight customers, continuous improvement efforts should be carried out by empathetic people. These type of employees will go beyond what is within their responsibility to delight their customers.

## **Kaizen In Action**

Bodek (2002) cited some examples of Kaizen at work which he considered as an amazing results generated when employees think the kaizen way

- i. At the Haneda Airport in Tokyo, an employee painted a bright yellow arrow on the floor to show travelers which direction the luggage carousel moves. This was a helpful aid for travelers using the airport and save time in searching for luggage.
- ii. At Canon in Tokyo, a worker put wheels on a bucket so that employees could pass parts without having to go back and forth between workstations.
- iii. At Nippon Steel, in Kimitsu, Japan, steel moves along a conveyer belt. When the steel leaves an oven, a door opens, tons of hot air are lost, and a great deal of energy is needed to reheat the oven. A worker shopping off duty noticed that when he entered a department store there was no door, only a curtain of hot air. He told his supervisor about it and got permission to install a curtain of hot air in the plant.
- iv. In Wolverton, England, a number of employees at British Rail Maintenance Ltd. weren't using protective screens while working with arc welds. Two employees noticed that workers who neglected to use the screens were getting flash eye, that is, a temporary blindness caused by looking at the arc welding. Those employees developed a small portable screen that was more comfortable for welders to use.
- v. In Dartford, South London, employees at British Rail are issued a new uniform and new leather belt each year. One employee suggested that the belt should be issued every other year and this action will saved the company £10,000 (US\$15,000).

Kaizen is very evident at Toyota Motor Manufacturing Kentucky (TMMK) in Georgetown, Kentucky. Kaizen implementation has helped Toyota become one of the world's premier automobile companies (Metalworking Digest, 2002). It is a corporate-wide operating philosophy that Toyota Motor Corporation has adopted, especially in its global production facilities. It enables Toyota to decreased labor costs, increased productivity, and enhanced product quality. In their quest for continuous improvement, the company installed a new shelf converter drawer system that can be easily inserted into existing standard shelving. This new system provides improved organization, space utilization, ease of access, and improved aesthetics. Because of the increased organization and efficiency, employees can quickly retrieve items, thereby reducing foot traffic in the production area and increasing overall safety. The Shelf Converter Drawer System has greatly improved the company's ability to meet overall production schedules.

Hara (2002) found that at Suzuki Motor Company, the new No. 3 assembly plant in Kosai which was newly installed, had reduced work stations on its No. 1 line from 150 to 115 by such measures as combining window washing, brake fluid, steering fluid and long-life coolant injection into a single process. He also found that

an Honda company, in overhauling its No. 1 and No. 3 Suzuka lines in the summer of 2000, cut manpower requirements and utility costs by one-third and one-fourth respectively. It made these gains through the introduction of lighter, more versatile manufacturing equipment along with new labor-saving processes including expanded usage of modules.

Brunet and New (2003), in their observations made in six Japanese companies namely Suzuki, Toyota Motor Kyushu, Honda, Sumitomo Metal Industries, Somic Ishikawa and Japan Casting and Forging Company, found out that Kaizen implementation are widely practiced in these companies but various important differences were noted such as:

- i. the work team make up was similar, but the focus of kaizen varied from the individual to much larger groups.
- ii. several companies claimed that kaizen was voluntary while others enforced mandatory participation.
- iii. the split was different when it came to payment for time spent doing *kaizen*; some companies offered no compensation, while others paid for the time spent on *kaizen* outside working hours
- iv. Some companies placed more emphasis on suggestion systems while other companies looked towards small group activities.
- v. the reward and incentive systems for *kaizen* varied from direct rewards to nominal prizes in some companies.
- vi. involvement of team members in negotiation in all the six companies of the annual targets ranges from high to nil.

Kaizen can work in companies of all sizes, in functions from sale to finance. On an average, a Japanese company receives 24 improvement ideas in writing per employee each year while in the United States, companies received on an average less than one idea per employee per year (Bodek (2002). This concept holds that small improvements, made continuously over a long period of time, can radically reshape and improve processes. In Paine & Associates, a public relations firm in Costa Mesa, California, USA, with a series of minor changes over a period of time, it built a much improved process and the agency was rated one of the country's 10 most creative by an industry journal (Hendricks, 1996).

At this company, the first change was to invite more people in a brainstorming session. Next, the company expanded its roster to include people from unrelated departments. Paine also began to hold meeting off-site to obtain different approaches. In this relation, the company, instead of trying one thing and discarding it when it proved not to be the perfect solution, the company kept using everything that showed it had some worth.. In other words, the company does not replace one technique with another.

Alexander Doll Company in New York City, achieved dramatic results by applying kaizen principles to the company ailing line of collectible dolls. Beginning with its small production line for baby dolls, the company set up cross functional team to evaluate problems with the line. They found out that operations were spread over three floors, causing extra handling that wasted time and damage the dolls. The batch process being used caused hundreds of dolls in various stages of completion to collect at each operation. They then physically moved the operation and combined everything in one location on one floor.

The flow of the product was designed so that each operation was carried out as each doll moved through the process. As a result of the improvements made, the distance each doll traveled from the beginning to the end of the process was reduced from 630 feet to 40 feet. The time required to complete a doll went from 90 days to 90 minutes. The number of unfinished doll pieces was reduced from 29,000 to 34. The square footage used for the line was reduced from 2,010 to 980. And productivity increased from eight dolls per person per day to 25 (Maynard, 1996).

## **Managing Continuous Improvements in Organizations**

To become more competitive, organizations and the people that operate them must break old habits and develop new

behaviors and processes that make them more effective and efficient (Hill, 2000). Thus, the name of the new game is not only improvement but continuous and sustainable improvement and change, in the search of competitive advantage. To this end, most modern organizations are presently engaged in various organizational improvement efforts aimed at improving performance. New strategies are being considered which require different organizational skill sets or behaviors. The complexity involved in implementing new strategies has increased and the time available to managers to respond to competitive threats and implement changes has shortened. They must not only be fast but most important is be first.

Though we see that change and improvement is taking place around us, the catalysts that set it in motion often remain unclear (Longenecker and Fink., 2001). Improvement can be broadly defined as "making or becoming different" or "a transition from one state, condition, or phase to another" (The Oxford Compact Dictionary & Thesaurus, 1997). However, in the context of organizational improvement, others have noted that any definition of improvement is potentially problematic (Kemelgor, Johnson and Srinivisam 2000).

It can therefore be suggested that organizational improvement encompass ongoing initiatives that are directed from the top to the bottom of the organization and has a profound effect on the depth of the change effort (Appelbaum, Pierre and Glavas 1998). Improvement can also be understood in a temporal context. Rapid change might occur in response to dramatic or urgent situations. As Fishman (1997) pointed out, "in a world that is changing with incredible speed, ambiguity is a constant."

Robbins and Coulter (1999) identified that change and improvement essentially falls into 3 categories as shown in Fig 2. These categories are structure, technology and people. Changing structures include any alteration in authority relations, coordination mechanisms, degree of centralization, job redesign or similar structural variables. Changes in structures of the organization ordinarily follow changes in strategy (Clardy, 2001). Logically, the organizing function follows the planning function since structure is a means for achieving the goals established through planning. Structural change attempts to improve performance by altering the formal structure of task and authority relationship. At the same time, the structure of an organization creates human and social relationships, which will become ends for the members of the organization. These relationships, when they have been defined and made legitimate by management, introduce the element of stability.

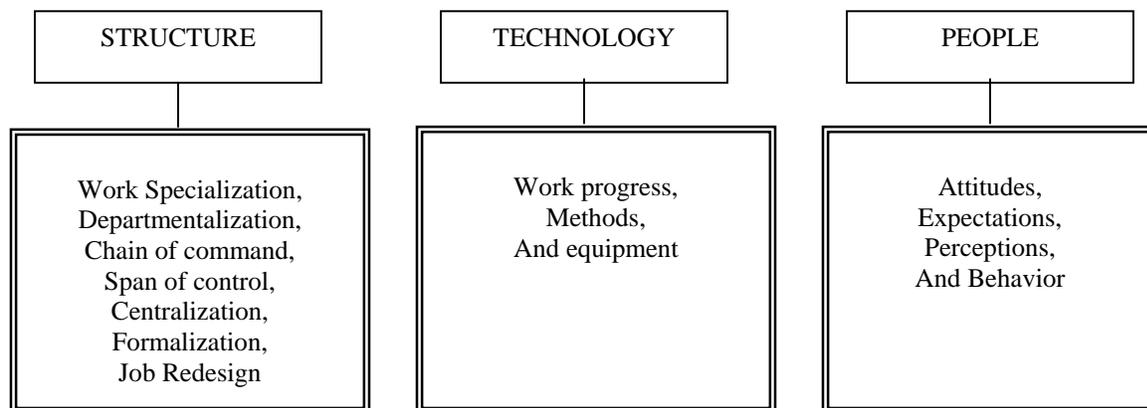


FIG. 2: THREE CATEGORIES OF IMPROVEMENT AND CHANGE  
 ADAPTED FROM: Robbins, S.P., & Coulter, M. (1999)

Changing technology includes any application of new ways to transform resources into the product or services. It encompasses modifications in the way the work is performed or the methods and equipment that are used. In the usual sense of the word, technology means new machines but we should expand the concept to include new techniques with or without new machines. Therefore, from this perspective, the work improvement methods of

scientific management such as automation and computerization can be considered as technological breakthrough (Lavin, 1997).

Lastly, changing people refers to the changes in employee's attitudes, expectations, perceptions and behavior. The major objective is to enhance the capacity of individuals to perform assigned tasks in coordination with others. In this relation, change could also be perceived in terms of individuals as agents who facilitate organizational transformation. It must be recognized that individuals are the critical catalysts for organizational change where real change occurs through the initiative and creativity of people, not hardware or systems.

Therefore, in organizational improvements, the "dynamics (content and format) of management development" must change (Longenecker and Fink., 2001) to help managers recognize their changing and revolving roles. Managers must also be assisted to acquire the skills needed to get their jobs completed but also to function more effectively and efficiently (Robbins and Coulter, 1999).

In addition, the paradigm for management development is also evolving in rapidly changing organizational. This evolution is being driven by the changing needs of both organizations and managers alike (Kemlelgor, Johnson and Srinivisam 2000). It is becoming apparent that organizations need managers who are capable of adapting themselves to change in terms of their skill and capability and modus operandi for leading others to achieve organization's goal.

## **Managerial Roles in Implementing Continuous Improvements**

Besides the function of planning and implementing, integrating and coordinating, leading and controlling as the main functions in managerial roles, rapidly changing organizations require:

- i. *New and different ways of thinking*: Makers of change or change masters are not necessarily creative than other people but they are more willing to approach problems from new angles. Managers in a rapidly changing organization should step outside traditional thinking, move across fields and bypass what everybody else is looking at to find possibilities for change.
- ii. *The acquisition of new business skills* (Longenecker and Fink, 2001): Determining the organization success is the key factor for all managers. At the very least managers need to understand the organization's situation well enough to know what is more important to competitive success and what is less important (Thompson and Strickland., 1998) and then acquire the skills needed to accomplish the task. This thinking is based on the premise that customer satisfaction, employee satisfaction and impact on the society are achieved through leadership driving policy and strategy, people management, resources and processes, leading ultimately to excellence in business results (Shergold and Reed., 1996).
- iii. *The development of different management skills and leadership styles*. Managers are people who do things right while leaders are people who do the right things. The difference may be summarized as activities of vision and judgment, which facilitate effectiveness as a leader, versus activities of mastering routines, which facilitate efficiency as a manager. A successful leader in the organization is a person who inspires, by appropriate means, sufficient competence to influence a group of individuals to become willing followers in the achievement of organizational goals. These leaders are creating new ideas, new policies or new procedures and have the reputation for bringing change to the basic operational foundations of their organizations. They are viewed as "creative change agents" and not simply as masters of basic routines (Darling, 1999).

Thus, the degree to which managers are also leaders relates to how they perform their roles. Those who are successful will be viewed as leaders, not just managers. This is to say that they are concerned with their organization's success dimensions in all respects. A real test of successful leadership in management lies in giving, to the greatest extent as possible, opportunities to others (Darling, 1999) act as resource allocators, coaches, mediators, controllers and negotiators (Chapman, 2001) within the situational context of the organization.

The competitive environment - societal, economic, global and technological - are changing and requires organization to change as well. When organization changes it requires effective managerial performance; effective managerial performance requires appropriate skills and behavior. Appropriate skills and behavior development is

facilitated through appropriate and effective management development activities (Longenecker and Fink, 2001). And different management development activities that is planning and implementing, integrating and coordinating, leading and controlling, may be required depending on which skills and behaviors are in most demand of development by the organization at a particular time.

## **Expectations Of Employees: Are They Getting What They Need To Make Improvements?**

In rapidly changing organizations, work and production processes change, reporting relationships are modified, job responsibilities are enriched, usage of technology increases resulting in a more self-managing and team-oriented employees. This led us to ask few questions about management development in rapidly changing organizations:

- What types of skills do managers need to handle change and how do they manage them?
- Are managers obtaining the experiences they need to be effective and efficient in rapidly changing organizations?
- What specific management practices are useful to improving management performance in rapidly changing organizations?

In their study on ten different, large US organizations experiencing significant levels of organizational change, Longenecker and Fink (2001), obtained top ten management development methods that managers considered to be most important to improving their performance in times of rapid change. The ranking of these management development methods is shown in Table 1.

In the top tier (cited by more than 75% of the managers) were three management development methods for improving performance which managers considered critical and top priority: *help them clarify their roles, goals and performance expectations* (85%) in their changing organizations, *give ongoing performance measurement and feedback* (77%) and *being mentored by senior managers* (75%). The importance placed on these three items suggest that in times of rapid organizational change, managers need better and clear direction, guidance and positive feedbacks to improve their effectiveness and efficiency.

Four methods appear in the second tier of importance (cited by more than 60% of the managers) for improving management performance. These methods included: formal career planning discussion (64%); challenging job assignments (62%); purposeful cross-training experiences (61%); and formal performance appraisal and review (60%). Each of these methods provide opportunities to improve their problem-solving and conceptual skills, improve their understanding of the organization as a total system, and highlight areas they need to improve or become more proficient.

Other top ten rankings methods were visiting other facilities and departments (56%); increased contact with external/internal customers (54%); special assignments like problem-solving teams or task forces (49%); and 360 degrees feedback systems (49%). The second half of the rankings are mentoring junior managers (46%) and using computer technology and networks (42%) as tools to improve performance. Managers also believed that involvement with professional associations (40%); pursuing additional college education (39%); attending outside seminars and workshops (35%); and, being part of a career development system (29%) also do have substantial benefits. Finally, near the bottom of these rankings are in-house seminars and workshops (27%); serving as an internal trainer/facilitator (26%); and outside readings assignments (17%).

TABLE 1: RANKING OF MANAGEMENT DEVELOPMENT METHODS FOR IMPROVING MANAGEMENT PERFORMANCE

Management Development Methods	What Managers Want (%)	What Managers Get (%)	The Difference (%)
Clarify Roles, Goals and Performance Expectations	85	41.6	43.4
Ongoing Performance Measurement And Feedback	77	35.7	41.3
Being Mentored By Senior Managers	75	16.6	58.4
Formal Career Planning Discussion	64	22.3	41.7
Challenging Job Assignments	62	46.2	15.8
Purposeful Cross Training Experiences	61	16.9	44.1
Formal Performance Appraisals and Reviews	60	41.1	18.9
Visiting Other Facilities	56	28.2	27.8
Increased Contact With External/internal Customers	54	34.9	19.1
360 Degrees Feedback Systems	49	18.1	30.9
Special Assignments	49	36.3	12.7
Mentoring Junior Managers/Supervisors	46	23.2	22.8
Computer Technology and Networks	42	39.7	2.3
Involvement with Professionals Associations	40	21.9	18.1
Pursuing Additional Educations	39	27.3	11.7
Outside Seminars and Workshops	35	44.8	-9.8
Career Development Systems	29	13.2	15.8
In-house Seminars and Workshops	27	41.1	-14.1
Serving As an Internal Trainer/Facilitator	26	17.3	8.7
Outside Reading Assignments	16	19.9	-3.9

NOTES: Statistical significant differences at the 0.05 level. N=433 managers

Adapted from: Longenecker et al. (2001)

It is interesting to note that all of the methods which included "formal" management development education such as formal college courses, in-house seminars and workshops, outside assignments; or involvement with professional were considered the least effective methods in improving management performance in rapidly changing organizations. Longenecker and Fink (2001) also pointed out that needs of these managers were not adequately addressed in order for them to improve their performance. For example, of the 20 management development methods identified, managers are receiving less than they desire in 17 cases. The other remaining three cases, the data revealed that organizations are investing resources in providing management development practices that managers in rapidly changing organizations do not necessarily find helpful for improving their performance.

On an overall basis, it is also noted that of the top ten development practices that managers have cited as most important in helping them improve their performance, all ten are being offered on average at levels. This suggest that managers are not well exposed to those management practices they most feel they need to improve their

performance. In other words, manager's needs are not being adequately addressed. They are not given what they desire to improve their performance. This might be the explanation why managers frequently having trouble in improving their performance in rapidly changing organizations.

The findings of the study made by Longenecker and Fink (2001) point toward the dynamic and complex nature of management development. In rapidly changing organizations, work and production processes change, reporting relationships are altered, job responsibilities expand, technology use increases, and people are called to become more self-managing and team-oriented. These changes place significant pressure on managers who must get results in this environment in shorter time periods, with less formal authority and fewer resources.

## Conclusion

The competitive pressure received by today's business environment is causing many organizations to make fundamental improvements not only in their operations but also in the way they interact with their customers. This means that continuous improvement effort, re-engineering, downsizing, working with a diverse workforce, culture change, team building and implementation of new technology is a critical respond to the above issue. Managers who are facing and implementing these programs require a much more diverse range of technical, interpersonal/communication, conceptual, diagnostic and political skills than ever before to successfully cope with the demands and expectations placed on them. As a consequence, extensive training and retraining of managers is vital if these changes are to be effectively implemented.

Improvements in strategy, structure, and work processes often leave managers unsure of their roles and related responsibilities. It can also lead to confusion about the roles and responsibilities of others within the organization. Bringing employees aboard the changing organization, assigning them a new job and expecting them to perform up to new standards, when they have no idea what those standards are or what their roles are, is unfair, unrealistic and counterproductive (Ziglar,1998). If employees are to serve as the drivers of improvement efforts, they must understand where the organization wants to go and how to achieve that vision. Only with a clear understanding of their role can employees develop strategies for implementing a new business project or change effort. Employees cannot be effective if they experience roles ambiguity. Perhaps this is why clarifying roles, goals, and performance expectations was the most frequently cited among those management development methods seen as important in improving manager performance in rapidly changing organizations.

In organizations experiencing intense competition, employees' effectiveness at anticipating, responding to, and implementing improvements in organizations can determine an organization's ability to compete. Organizational success is almost always a function of the effectiveness of an organization's employees. Thus, improving the effectiveness of organization's management development practices can be a distinctive source of competitive advantage in the years to come. The most encouraging aspect is that this competitive advantage can be expanded without a huge capital and technology but what is really needed is to help managers improve and a commitment to improve current management development efforts within the organization.

Yes, it takes everyone involved to make an organization successful; from CEO down to managers to the cleaning crew. Each person's job is important and each person has the power to make a positive or negative difference. Whether you are in the top management or you fill in part time for temporary service, you have a choice to make everyday of the week. Then choose to do good things that nurture your organization.

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# Employee Stress: The Case of Malaysian Workforce in Health Care Service

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## Abstract

Stress has been studied extensively in the business industry. In Malaysia, especially in the academic milieu, though, the need for more exploratory researches seems to be not fully explored. Being a pandemic concern, the necessity for casting attention on stress is as important in the educational setting as it is in the business environment. This paper looked into the work stress among the health personnel of Universiti Utara Malaysia, Sintok, Kedah. It also examined work stress across (a) gender, (b) age, (c) marital status, (d) educational attainment, and (e) length of service. The paper also explored on the implications of work stress on employee welfare development. Data were gathered using a Work Stress Questionnaire, and were analyzed employing the SPSS computer software. All analyses were set at 0.05 significance level. Findings revealed that as a whole group, the respondents experienced a “moderate” level of work stress. Potential sources of stress were Terms of Employment, Supervisor and Co-Worker Support, Job Demands, Decision Authority, and Skill Discretion. Work stress levels did not significantly vary according to gender, age, marital status, educational attainment, and length of service. Implications of findings are elucidated.

## Introduction

Stress may have been talked about in a myriad of discussions and in a string of researches. Despite the abundant investigations on stress and stress-related concerns, researches continue to explore its correlates and consequences as well as develop programs that reduce its health-related impact.

Whether one likes it or not, stress is an occupational or industrial reality and job issue that has permeated in management literature, especially in the context of work. It has become a major focus of organizations across types and cultures, owing to its negative and debilitating impact on employees' efficiency and productivity. For instance, in the UK, Cooper and Cartwright (in Rodham and Bell, 2002) pointed out that stress-related absences were 10 times more costly than other industrial relations disputes put together; in terms of sickness, absences, premature death or retirement, stress costs the UK economy a staggering 2 billion pounds per year. Likewise, Visser, Smets, Oort, and de Haes (2003) also cited a case in point of illnesses among Dutch physicians which prompted disability insurance companies to increase premiums by up to 30%.

According to Kivimaki and colleagues (2002), attention should be paid to the prevention of work stress because of its adverse effects on health, particularly the risk of cardiovascular disease such as hypertension, high concentrations of low density lipoprotein cholesterol, lowered vagal tone, and impaired fibrinolytic capacity. Johnson and Indvik (1996) said that approximately 100 million working days are lost each year because employees cannot face going to work. Bailey (in Stevenson, 2000) asserts that stress now accounts for more lost working days in the UK than industrial action. These examples may suffice the statement that stress affects appallingly personal health and job efficiency, among others. Stevenson (2000: 1) clearly states:

It is certainly conceivable that many stress-related absences – especially those of only a few days' duration – may be attributed to other, more mundane, causes. This is because stress does not usually manifest itself as a single easily identifiable set of symptoms; indeed many victims may not even realize that they are suffering stress at all.

The above assertion implies that stress consequences can sometimes be subtle. It can manifest itself by certain physiological problems like nausea, headache, irregular sleep patterns, and the like. In a business culture which puts more pressure on the personnel to succeed, says Grout (1994), it is vital to control and manage stress, like maintaining a balanced diet, cutting down on smoking, having exercise routines, and on the general scale, taking

good care of personal health. For Rojas and Kleiner (2000), positive thinking is an important tool to keep stress away.

Undeniably, the issue of stress in the work environment still creeps into the managerial agenda of employee development. It is obvious that if the workers are not given adequate attention, their safety and health in the organization will be at stake. As Ben-Bakr, Al-Shammari, and Jefri (1995) noted, stress is a major factor for absenteeism, poor morale, high accident and turnover rates, dwindling productivity, and increased company medical expenses.

The level of work stress among health workers of Universiti Utara Malaysia (UUM) was looked into in this paper. The health personnel of UUM, just like any other workers, are also worthy of research attention with regard to stress studies such as the present one. These personnel are undoubtedly playing roles in the university, with special mention to their contribution towards the health development of the university's workforce and students.

Through the findings of this study, the administrators and policy-makers would have baseline information on the level of work stress of personnel who are involved in the health care services in the university. These bits of information might lead to some restructuring of jobs or terms and conditions to cater to employees' suitability in performing the work vis-à-vis the possible amount of stress associated with the job. Stress-reduction programs may also be carried out depending on the extent of the work stress experienced by the respondents.

The benefits of the research may also be extended to the participants, whose awareness of their personal or individual stress level might be of great use for them for coping purposes.

## **Objectives of the Study**

The main purpose of this study was to determine the level of work stress among the staff at the Health Center of Universiti Utara Malaysia, Sintok, Kedah, Malaysia. It also examined work stress of respondents when grouped by (a) gender, (b) age, (c) marital status, (d) educational attainment, and (e) length of service. Finally, the study looked at how work stress would have implications to employee welfare development.

## **Methodology**

### **Research Design and Instrument**

This research was descriptive-correlation in nature utilizing all the staff at the Health Center of Universiti Utara Malaysia (UUM), Sintok, Kedah, Malaysia as the target population. Of the questionnaires distributed, only 68 percent were usable for analysis.

In assessing work stress, a Work Stress Questionnaire (WSQ) devised by several independent researchers namely, Karasek, Smulders, de Winter, Grundemann, Dhondt, Houtman, Bloemhoff, Dhondt, and Terwee (in Kompier and Levi, 1994) was used in the study. This questionnaire was also utilized in the study of Yeap, Bathmavathy, and Ifa (2002) of government hospital employees in the state of Kedah, Malaysia. To facilitate better understanding of the items, a Malay translation was provided. Three experts on language and on translation did the Malay version of WSQ.

WSQ consists of 38 items, answerable by "yes" (1 point) or "no" (0 point). Of this number, six (6) items were negatively stated, and the rest, positively stated. Due to the bipolar items, a reverse in scoring was done; that is, a positive statement with a "yes" response would be given 1 point while a "no" response, no point. On the other hand, a negative item with a "yes" response would not be given a point while a "no" response would receive 1 point. The higher the mean score (minimum = 0, maximum = 38), the higher would be the level of work stress.

In this study, however, WSQ was modified into a 5-five point Likert scale, with responses ranging from "always" to "never". Scoring was similar to the original format, where "always" received 5 points for a positively stated item and 1 point for a negatively stated item; "never" received 1 point for a positively stated item and 5 points for a negatively stated item.

WSQ has a total of five (5) sub-dimensions with the following number of items: (a) Job Demands – 9 items (max. score = 45), (b) Decision Authority – 8 items (max. score = 40), (c) Skill Discretion – 6 items (max. score =

30), (d) Terms of Employment – 7 items (max. score = 35), and (e) Supervisor and Co-Worker Support – 8 items (max. score = 40).

The WSQ was also pilot-tested to determine its suitability in the local setting. The overall Cronbach alpha was 0.893, and each sub-dimension generated the following Cronbach alpha coefficients:

- (a) Job Demands – 0.845
- (b) Decision Authority – 0.791
- (c) Skill Discretion – 0.805
- (d) Terms of Employment – 0.901
- (e) Supervisor and Co-Worker Support – 0.925

To determine the level of work stress for each sub-dimension, the researchers devised arbitrarily the following scale based on the minimum and maximum scores, as presented in Table 1.

TABLE 1: MEAN SCORES AND VERBAL DESCRIPTION FOR EACH SUB-DIMENSION OF WORK STRESS

Sub-Dimension	Range of Mean Scores	Verbal Description
(1) Job Demands (nature and volume of expected work)	33.00 & above	High
	21.00 – 32.99	Moderate
	20.99 & below	Low
(2) Decision Authority (freedom to determine what, when, and how to perform a task)	29.35 & above	High
	18.67 – 29.34	Moderate
	18.66 & below	Low
(3) Skill Discretion (personal discretion required on a task)	23.00 & above	High
	15.00 – 22.99	Moderate
	14.99 & below	Low
(4) Terms of Employment (conditions on employment like vacation arrangement, job security, career development, promotion)	18.67 & above	High
	9.33 – 18.66	Moderate
	9.32 & below	Low
(5) Supervisor and Co-Worker Support (workplace atmosphere and relationship between supervisors and co-workers)	23.00 & above	High
	15.00 – 22.99	Moderate
	14.99 & below	Low
OVERALL WORK STRESS LEVEL	139.34 & above	High
	88.67 – 139.33	Moderate
	88.66 & below	Low

### Data Collection and Analysis

Permission was first obtained from the Director of the Health Center of the university. The Director examined the WSQ and assessed its suitability to the target respondents. After about a week, the researchers were granted approval to gather the data.

Assistance was solicited and the questionnaires were distributed and collated by staff assigned by the Director. Gathering of data took about two weeks. The information obtained were then tallied, tabulated, and analyzed using the SPSS computer software, set at 0.05 significance level.

## Findings

### Profile of Respondents

There were more female respondents (52.20%), but their proportion with the males (47.80%) was almost similar. The respondents were almost in their forties, their mean age being 38.69 years (median = 36.50). The youngest respondent was 21 years and the oldest was 55 years.

Two-thirds (65.20%) of them were married; almost half (47.80%) possessed Sijil Pelajaran Malaysia or SPM/Sijil Tinggi Pelajaran Malaysia or STPM (Malaysian Certificate of Education/Malaysian Certificate of Higher

Education), and about one-fourth (21.70%) had Diploma/Certificate qualifications. A few of them had other qualifications (13.00%) and Bachelor's degrees (8.70%).

On the average, the respondents had a working experience of 9.79 years, with a median of 8.00 years. The shortest length of work was 1 year, and the most senior of them had 30 years of working experience.

#### Level of Work Stress

Table 2 shows the work stress of respondents as a whole and when grouped by sub-dimensions of work stress. As shown in the Table, the respondents obtained an overall mean score of 119.65, which fell in the "moderate" work stress category.

TABLE 2: WORK STRESS LEVELS OF RESPONDENTS

Work Stress Sub-Dimension	Mean Score	Verbal Description	Standard Deviation	Min. Score	Max. Score
(1) Job Demands	29.15	Moderate	4.77	23.00	41.00
(2) Decision Authority	24.84	Moderate	6.20	14.00	36.00
(3) Skill Discretion	18.10	Moderate	4.17	12.00	26.00
(4) Terms of Employment	19.05	High	8.37	7.00	35.00
(5) Supervisor and Co-Worker Support	29.59	High	4.58	22.00	36.00
Overall Work Stress Level	119.65	Moderate	20.52	92.00	166.00

Looking at the spread of overall mean scores, the lowest mean score generated was 92.00 ("moderate") while the highest mean score was 166.00 ("high"). The overall standard deviation was 20.52, suggesting that the respondents were heterogeneous in their views on the work stress they experienced in their workplace.

Across the sub-dimensions of work stress, the findings revealed that the respondents had "moderate" work stress in terms of Job Demands (mean = 29.15), Decision Authority (mean = 24.84), and Skill Discretion (mean = 18.10). However, they expressed "high" work stress with regard to Terms of Employment (mean = 19.05) and Supervisory and Co-Worker Support (mean = 29.59).

In order to identify specific components of the job that contributed to high work stress, individual items of WSQ were examined. As found, those that indicated relatively "high" work stress levels were as follow:

- (a) Job Demands:
  - "My job requires working very hard." (mean = 4.57)
  - "My job requires working very fast." (mean = 4.41)
  - "My job is very hectic." (mean = 3.78)
- (b) Decision Authority
  - "I can determine the order in which my work is to be done." (mean = 3.59)
  - "I can determine when a task is to be done." (mean = 3.50)
- (c) Skill Discretion
  - "My job requires a high level of skill." (mean = 4.04)
  - "My job requires that I learn new things." (mean = 3.74)
  - "My job requires me to be creative." (mean = 3.35)
- (d) Terms of Employment
  - "In five years, my skills will still be valuable." (mean = 3.35)
- (e) Supervisor and Co-Worker Support
  - "The daily management under which I work is good." (mean = 4.26)
  - "The atmosphere at the workplace is good." (mean = 4.13)
  - "The daily management gives me enough support in my work." (mean = 4.09)

### Work Stress Level by Demographics

In terms of gender, the data in Table 3 show that on the overall work stress, the female respondents experienced a “high” (mean = 128.83) level of work stress while the males had “moderate” (mean = 117.11) level of work stress. The difference, however, was not statistically significant when analyzed using a t-test ( $p = 0.294$ ).

TABLE 3: WORK STRESS AMONG RESPONDENTS BY DEMOGRAPHIC VARIABLES

Demographics	Job Demands	Decision Authority	Skill Discretion	Terms of Employment	Supervisor and Co-Worker Support	Overall Work Stress Level
(1) Gender						
Male	30.00(M)	23.00(M)	16.78(M)	18.44(M)	29.50(H)	117.11(M)
Female	28.44(M)	28.00(M)	19.67(M)	21.50(M)	30.50(H)	128.83(H)
(2) Age						
Younger (<36)	30.86(M)	24.71(M)	18.00(M)	18.57(M)	31.25(H)	122.83(M)
Older (36&>)	28.17(M)	27.50(M)	20.00(M)	24.67(H)	29.71(H)	129.17(M)
(3) Marital Status						
Single	27.67(M)	28.50(M)	19.67(M)	22.50(H)	30.00(H)	131.00(M)
Married	28.54(M)	26.08(M)	19.31(M)	21.77(H)	30.67(H)	125.92(M)
(4) Educational Attainment						
SRP/PMR	23.67(M)	21.67(M)	18.00(M)	21.00(H)	32.67(H)	117.00(M)
SPM/STPM	31.00(M)	24.44(M)	17.60(M)	15.11(M)	28.45(H)	113.43(M)
Diploma/Cert.	28.00(M)	29.25(M)	21.00(M)	28.25(H)	30.75(H)	137.25(M)
Degree	29.00(M)	30.00(H)	19.00(M)	24.00(H)	32.00(H)	131.00(M)
(5) Length of Service						
Shorter (<8 yrs)	31.13(M)	23.63(M)	17.25(M)	17.13(M)	30.90(H)	118.43(M)
Longer (8&>)	27.50(M)	27.13(M)	20.13(M)	23.57(H)	29.50(H)	127.14(M)

Legend: M = Moderate; H = High

Note: The t-test and ANOVA analyses were not statistically significant at 0.05 alpha ( $p > 0.05$ ).

Across various sub-dimensions of work stress, both the male and female respondents had “moderate” work stress in terms of Job Demands, Decision Authority, Skill Discretion, and Terms of Employment. However, both groups expressed “high” work stress with regard to Supervisor and Co-Worker Support. When the differences in mean scores across the sub-dimensions of work stress were analyzed, it was found that all the t-values were not significant at 0.05 significance level ( $p > 0.05$ ).

For comparison purposes with regard to age, the respondents were arbitrarily grouped into two: the younger and the older groups. The median age (36.00) was used as the point for categorizing respondents: those that were in the median level and above were considered “old” while those lower than the median were deemed “younger”. Based on the analyses, it was revealed that on the overall, both the younger and the older groups had a “moderate” level of work stress. Except for Supervisor and Co-Worker Support (“high”), both age groups had a “moderate” level of work stress in Job Demands, Decision Authority, and Skill Discretion. As regards Terms of Employment, the older group had a “high” (mean = 24.67) work stress level and those in the younger group had a “moderate” (mean = 18.57) work stress. When all the mean scores were tested statistically, it was noted that there were no statistically significant differences in the differences observed ( $p > 0.05$ ).

With regard to work stress of respondents grouped by marital status, both the single and married respondents expressed “moderate” work stress in terms of Job Demands, Decision Authority, and Skill Discretion. On the other hand, both groups revealed a “high” level of work stress with regard to Terms of Employment and Supervisor and Co-Worker Support. As a whole group, the single and married respondents experienced “moderate” work stress. The t-test was employed to determine if the differences in mean scores were significant at 0.05

significance level. The findings showed that regardless of marital status, no statistically significant differences were noted in the respondents' levels of work stress ( $p > 0.05$ ).

Across educational attainment, the overall work stress level of respondents was found to be "moderate," a trend which was also shown by all groups of respondents grouped by educational attainment with regard to Job Demands and Skill Discretion. In terms of Decision Authority, only those with Bachelor's degrees (mean = 30.00) experienced "high" work stress level while the other groups had "moderate" work stress. With respect to Terms of Employment, those with SPM/STPM expressed "moderate" work stress while the other groups had "high" work stress level. In terms of Supervisor and Co-Worker Support, all groups of respondents having various educational attainment had a "high" work stress level. Contrary to expectations, the ANOVA did not indicate any statistically significant differences in the mean scores across educational attainment groups at 0.05 significance level ( $p > 0.05$ ).

In terms of length of service, "moderate" levels of work stress were observed among those with shorter (less than 8 years) work experience and those with longer (8 years and above) years in work as regards Job Demands, Decision Authority, and Skill Discretion. Both groups, however, experienced "high" work stress in terms of Supervisor and Co-Worker Support. With regard to Terms of Employment, the "shorter" group had "moderate" (mean = 17.13) work stress while the "longer" group had "high" (mean = 23.57) work stress. The overall work stress level was "moderate" for both groups of respondents classified by length of service. To determine if the differences in mean scores varied significantly according to length of service of respondents, the t-test was employed. Based on the analyses, the findings revealed that there were no statistically significant differences in the work stress levels of respondents when grouped by length of service ( $p > 0.05$ ).

## **Discussion and Conclusion**

The health personnel of Universiti Utara Malaysia (UUM) experienced some degree of work stress. Based on the scale arbitrarily devised for the purpose of this research, the levels of work stress among the respondents ranged from "moderate" to "high." This finding is also similar with that of Yeap, Bathmavathy, and Ifa (2002), whose study examined work stress among employees of a government hospital in the state of Kedah, Malaysia. These researchers found that employees assigned at the Radiology and Pathology departments encountered "above average" work stress in terms of job demands.

In the present study, job demands, decision authority, skill discretion, terms of employment, and supervisor and co-worker support came out to be sources of work stress. Of these factors, the health personnel of UUM had relatively high work stress in employment matters and supervisor and co-worker support, and moderate amount of work stress in the other preceding sub-dimensions.

Terms of employment surfaced as a strong work stressor among the respondents. For instance, in the work of Ben-Bakr, Al-Shammari, and Jefri (1995), they highlighted an aspect of employment, which dealt with performance evaluation. Their research indicated that a lack of knowledge about performance evaluation ranked much higher as a source of stress in private and semi-private organizations than it did in public organizations. Rojas and Kleiner (2000) clearly stated that competing in the workplace for performance is a very stressful condition. These statements may well apply in the present study but when the individual items of the Work Stress Questionnaire (WSQ) were examined, the item "In five years, my skills will still be valuable" had the highest mean score. This implies that it is the most dominant source of work stress in terms of employment matters among the university's health personnel. It might be argued that work stress among the health personnel of UUM surged with this factor because of the feeling of "job insecurity" or inability to pursue valuable contribution to the university. This feeling may be more prevalent among the older respondents than the younger ones, especially those nearing retirement.

Moreover, the findings of the present research disclosed that supervisor and co-worker support was another major job stress among UUM's health personnel, where the respondents experienced a high level of work stress. This outcome, however, does not corroborate with the work of Lai and Chan (2000), who found that relations with superiors and colleagues constituted sources of least stress. These researchers explained that the low level of stress associated with interpersonal relationships might be due to the emphasis on social cohesion. In the context of the

present study at UUM, the individual items on this sub-dimension pointed out that work stress was high in terms of the atmosphere at the workplace, the daily management, and support in work. In other words, these are the areas in the management at Health Center that need to be looked into so that the personnel would be more eased in their work and in dealing or interacting with their colleagues and supervisor in the work environment. In the investigation of Cottrell (2001), “relationships” also turned out to be a source of occupational stress among community mental health nurses in a semi-rural area of North Wales.

Job demands, decision authority, and skill discretion were also other potential sources of work stress among the health personnel of UUM. The work of Rusli, Huda, Rampal, Naing, and Winn (2003) also cited job demand, psychological stressors, created skill, and working in clinical-based departments as significantly related to high job strain among medical lecturers at Universiti Sains Malaysia in Penang, Malaysia. Azzat, T. Ramayah, and S. Kumaresan (2003) also found that blocked career, alienation, conflict, and unfavorable work environment had significant positive effects on job stress among electronic firm managers in Penang.

In the present research, it was identified that work stress was relatively high if jobs were viewed as demanding, specifically those that “require working very fast, very hard, and very hectic.” This is understandable for those who cannot cope with the physical requirements of the tasks assigned. Alternatively, it might be explained that work stress could be attributed to the nature of work of the health personnel of UUM. Being into a “caring,” service-oriented job, a lot of demands could be expected and as such, people may not be able to cope easily with the pressure involved. The situation may have been induced by the “decision authority” viewed by the respondents, where they felt that they had limited opportunities to determine the order and period (time-related) of doing their work. Moreover, the conditions may have been perceived to be more stressful because the respondents had to “learn new things, be creative, and acquire high level of skills.” The findings may suggest that on top of the demands of the job, the respondents had to possess additional experiences or competencies so that they could perform their work efficiently.

The finding that there were no significant differences in the work stress levels of respondents when grouped by demographic characteristics implies that work stress would not be statistically and significantly different regardless of whether respondents were male or female, younger or older, single or married, had degrees or not, and had shorter or longer length of service. Some studies have also focused on these variables, such as that of Golec (2002), who found that nurses who felt older than their actual age reported mental and physical tiredness and feeling tense after a workday more so than the other nurses. Lai and Chan (2000) disclosed that gender, education, age, and work experience were not related to stressors. Humpel and Caputi (2001) found that years of experience was not related to work stress.

## **Implications**

The findings of this research have led to certain implications, with special emphasis on employee welfare management. Along with these implications go some recommendations for future action.

Over the past 20 years, there has been growing recognition of job stress as an important occupational health problem. In industry, there is an increasing awareness that occupational stress contributes to a significant portion of employee compensation claims, health care costs, disability, absenteeism, and productivity losses (Sauter, Murphy, and Hurrell, 1990, in Murphy, 1995). If work stress is not diagnosed or attended to at its early stage in the workplace, it might pose a substantial damage to the medical and health conditions of employees as well as strike a huge financial liability on the part of the management. Obviously, there is a need to initiate stress management and stress-coping programs for the employees. As global competition increases, corporations that can teach their employees how to manage and channel stress in positive directions may well have discovered a strategic advantage (Donovan and Kleiner, 1994). However, the task of selecting and implementing stress management interventions is not a simple one, said Bradley and Sutherland (1994). These authors pointed out that stress management programs might include a heterogeneous range of activities, which extend from training an individual in relaxation techniques to the redesign of a job. In other words, there should be initiatives from the top management to ensure that

employees work with a tolerable level of work stress. It is argued that some amount of stress is also necessary to motivate individuals to push ahead and work with a certain amount of urgency.

Apart from training and management commitment, another implication of the research is to provide more financial incentives to the health personnel of UUM. These incentives may come in the form of, say, bonus, which can be performance-based or as determined by the management. As these personnel may be prone to any contagious diseases or illnesses, the management may wish to provide sort of risk allowances to qualified employees, such as those in the x-ray department, among others. Another incentive may come in the form of a reward package for employees, which will serve as a motivation for employees to maintain a satisfactory level of performance despite the elements of work stress.

Moreover, employees need to be educated of the evolving and progressive nature of work stress. Specifically, the management should emphasize the importance of developing a positive outlook and wholesome mindset regarding the approaches of dealing with work stress. Citing the National Institute of Occupational Safety and Health of the U.S., Segumpan (2003: 38) clearly advances:

Jobs should be designed to provide meaning, stimulation, and opportunities for workers to use their skills. Roles and responsibilities should be clearly defined, giving workers opportunities to participate in decisions and actions affecting their jobs. Communications should be improved by reducing uncertainty about career development and future employment prospects. Social interaction needs to be provided, and work schedules that are compatible with demands and responsibilities outside the job should be established.

Special emphasis needs to focus on supervisor and co-worker support as well as terms of employment because these were the two sub-dimensions of work stress in the study where the respondents had high work stress. The implication, therefore, is to establish a social or interpersonal support network in the workplace and encourage active socialization process and programs. Proactive, not reactive, measures should also be explored on which or what specific terms of employment should be modified or changed to cater to the growing needs of the health personnel.

Finally, it may be worthwhile to point out that to a large extent, work stress is attitudinal or perceptual in nature. It is self-imposed. Hence, efforts should be done to encourage employees to view work stress in a positive or constructive perspective.

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# **Examining the Relationship between HRM Practices and Firm Performance in Malaysian Manufacturing Firms: The Moderating Role of Environmental Uncertainty**

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## **Abstract**

An increasing interest in improving the management of people or utilizing human resources better as a means of achieving competitive advantage has resulted in an extensive literature in this area of human resource management. Whilst a good number of empirical studies have examined the human resource management (HRM) practices in the West, there is insufficient research that has focused on the role of environmental uncertainty in moderating the relationship between HRM practices and firm performance. This study initiates an attempt to address this issue. Data were collected using mail questionnaires to human resource managers of manufacturing firms in Malaysia. This study finds there is a relationship between HRM practices and firm performance. Furthermore environmental uncertainty is found to significantly moderate the relationship between HRM practices and firm performance.

## **Introduction**

Over the past decade there has been high interest and much research in the area of HRM or people management practices and their link to performance. For many companies, employees or human resources constitute an important source of competitive advantage (Barney, 1991; Pfeffer, 1994). For these companies maintaining a competitive advantage requires a management of human resources that makes sure these human resources stay competitive, difficult to imitate and substitute. As a result, it is important for a company to adapt HRM practices that make the best use of its human resource. The above realization has prompted an increasing interest to study the importance of HRM practices on organizational performance, and a number of studies have found a positive relationship between HRM practices and firm performance (Huselid, 1995; MacDuffie, 1995; Delery & Doty, 1996; Huselid & Becker, 1997; Fey & Bjorkman, 2001; Rondeau & Wagar, 2001, Daud & Ahmad, 2003).

## **Defining HRM**

HRM means different things to different people. Armstrong (1995) defined HRM as 'a strategic and coherent approaches to the management of organization's most valued assets - the employees' whereas Storey (1995) applies a more specific definition, stating that HRM 'is a distinctive approach to employment management which seeks to achieve competitive advantage through strategic deployment of a highly committed and capable workforce, using an integrated array of cultural, structural and personnel techniques.' Storey's definition specifies the characterization of HRM as one particular approach to managing people which yields competent and committed workforce which positively affects competitive advantage or performance; because of that many researchers (Schuler & MacMillan, 1984; Schuler & Jackson, 1987; Wright & Snell, 1991) consider HRM practices as organizational activities that are directed at managing the pool of human resources and ensuring that the resources is employed toward the fulfillment of organizational goals.

## Literature Review

### HRM Practices and Firm Performance

Since early 1990s, HRM practices have become an increasingly important topic for research (Arthur, 1994; Pfeffer, 1994; Huselid, 1995; MacDuffie, 1995; Delery & Doty, 1996; Ichniowski, Shaw & Prennushi, 1997; Fey & Bjorkman, 2001; Mayrhofer, Muller-Camen, Ledotler, Strunk and Erten, 2002; Hartog & Verbug, 2004). One of the earlier attempts was undertaken by Arthur (1994) where he identified two types of HRM systems (i.e. control and commitment) to test the extent to which the specific combination of practices utilized by organizations could predict differences in organizational performance.

Similarly, Huselid (1995) using a national sample found that HRM practices had an economically and statistically significant effect on turnover, productivity, and corporate financial performance. Hoque (1999) explored HRM practices and a range of outcome variables from a sample of 200 hotels. He found that, amongst the quality enhancers, commitment, job satisfaction, quality of work, quality of service and financial performance as perceived by the respondent, were all strongly related to the use of HRM practices. On the other hand, Khatri (2000) using a sample of 200 of the largest companies in Singapore, found that HRM practices have a stronger direct effect on profitability than sales growth and non-financial measures. In fact, the significant relationship between HRM practices and profits is in agreement with the findings from other studies (Gerhart & Milkovich, 1990; Huselid, 1995).

### HRM Practices – Environmental Uncertainty – Performance Relationship

Researchers have for decades been concerned with the effects of the environment on the organization's effectiveness and efficiency. Much work has suggested that environmental forces combined with internal organizational conditions have degree of impact on firm performance (Lenz, 1980; Rumelt, 1982; Hambrick, 1983; Prescott, 1986). Environmental uncertainty has been viewed as the amount of change and predictability in the economic, technological and political dimensions of the industry environment. A majority of earlier studies on external environment have basically concentrated on the relationship between environment and organizational performance. However, there are a few researches that have studied external environment as a moderating variable.

Although a number of studies have tried to investigate the HRM practices – firm performance relationship, no clear pattern of the relationship between HRM practices and its environment has been found. Though prior studies have found that external environment is one of the moderating variables that can influence the performance of large firms, the influence of external environment on HRM practices has not receive much attention. Based on the above review, the present study considers environmental uncertainty will positively affect the relationship between HRM practices and firm performance.

### The Present Study

Based on the above discussion, the theoretical framework for the present study is depicted in figure 1 below.

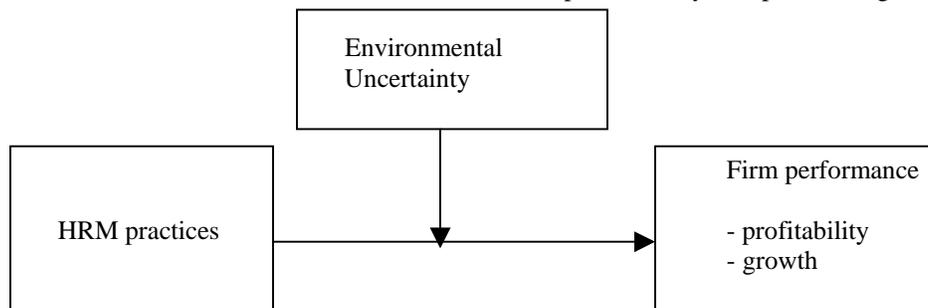


FIG. 1: RESEARCH FRAMEWORK

Within this framework two hypotheses are proposed:

- H1a: There is a significant positive relationship between HRM practices and profitability.

- H1b: There is a significant positive relationship between HRM practices and growth.  
H2a: The relationship of HRM practices and profitability is moderated by environmental uncertainty.  
H2b: The relationship of HRM practices and growth is moderated by environmental uncertainty.

## Methodology

### Sample and Response Rate

For this study, a list of medium and large-sized firms was obtained from the Directory of the Federation of Malaysian Manufacturers (FMM) 2001. Data was collected through mail questionnaires, which were addressed to the Human Resource Directors/Managers. The unit of analysis is organization and the samples were randomly selected from the directory. The sample selected were the manufacturing firms with a minimum number of fifty fulltime employees.

A total of 800 questionnaires were mailed, of which 170 firms responded. Out of the 170 questionnaires received, a total of eight questionnaires were unusable due to incomplete response. This represents an overall response rate of 20.25%. Considering that mailed surveys generally have a low response rate, this level of response is considered satisfactory.

### Variables and Measures

The variables of this study were measured using instruments derived from various sources. Many researchers have included various HRM practices to be tested. In this research we identified seven practices that should contribute to high growth and profitability of the firm which include staffing, training and development, performance appraisal, compensation and benefits, employee participation and involvement, job security and human resource planning. The extents of these HRM practices were expected to increase growth and profitability of the firm. A five-point Likert scale (1 = not at all to 5 = to a very great extent) was used in order to measure the extent of HRM practices.

Environmental Uncertainty measures the predictability of impact of changes in environment on performance.

Performance. The performance measures used in this study include profitability and growth. Profitability is measured in terms of market share, profit, return on investment, sales, return on sales and size of market for the last three years. Growth is measured in terms of percentage of growth in sales and percentage of growth in profit in the last three years (Khatri, 2000).

These measures were subjected to factor analyses to identify the structure of interrelationship (correlation) among a large number of variables. Factor analyses were conducted on all the items measuring HRM practices. Four main factors emerge factor loading ranging from .52 to .88. On the basis of factor loading, the four factors were named accordingly. The factor analysis was conducted separately for extent of environmental unpredictability. The result of factor analysis on the five questions provides a single factor (Cronbach's alpha, .74). The result of factor analysis on profitability also yields a single factor, thus the name profitability was retained (Cronbach's alpha, .95).

Past research have shown that HRM practices can be influenced by demographic variables. The demographic factors that may have potential effect on HRM practices are size of the firm; life cycle stage and length of operation. Hence, these demographic variables were controlled in the statistical analysis. In the current study, the third and fourth hypotheses were tested using hierarchical regression (Cohen and Cohen, 1975). Control variables were entered first, followed by in step 2 regression with the independent variables of HRM practices, step 3 refers to regression with the independent variables and the moderator environmental uncertainty, whilst instep 4 refers to regression with the independent variables, moderator and the interaction terms. Categorical variables such as size of the firm, life cycle stage and length of operation were initially dummy-coded.

## Findings

### Organizational Profile

The profile of the respondent firms is given in Table 1. From a total of 162 firms that responded, 53 firms (32.7%) were from the electrical and electronics, while 22 (13.6%) firms from fabricated metal products, machinery, transport equipment tied with chemical, petroleum and plastics products responded to the survey. Seventeen firms (10.5%) were from basic metal/nonmetallic mineral products, and thirteen (8%) and twelve (7.4%) firms came from wood, wood-based products, and furniture and food, beverage and tobacco respectively. A total of ten (6.2%) were from rubber-based products, seven (4.3%) were from textile, wearing apparel and leather firms and six (3.7%) firms grouped under others, which comprise of jewelry, watch and ammunition manufacturing. Majority of the firms (73.5%) have been in business for more than 10 years. Slightly more than half of the firms responded were Malaysian owned (51.9%), while the remainders were foreign-owned. Approximately 57% of the firms surveyed were in the maturity or decline stage, with 43% were in the introduction and growth stage. More than half of the responding firms (61.7%) have 500 fulltime employees or less while thirty-eight percent are large firms with more than 500 employees

TABLE 1: ORGANIZATION PROFILE

	No. of firms	Percentage
Manufacturing sectors		
Food, beverage and tobacco	12	7.4
Textile, wearing apparel and leather	7	4.3
Electrical and electronics	53	32.7
Fabricated metal products, machinery, transport equipment	22	13.6
Wood, wood-based products, furniture	13	8.0
Chemicals, petroleum, plastic products	22	13.6
Basic metal/non-metallic mineral products	17	10.5
Rubber-based products	10	6.2
Others	6	3.7
Length of operation in Malaysia		
10 years and below	43	26.5
11 to 15 years	46	28.4
16 to 20 years	15	9.3
More than 20 years	58	35.8
Ownership status		
Malaysian	84	51.9
Japanese	26	16.0
Taiwanese, Korean, Hong Kong, Singaporean	17	10.5
Others: USA, UK, EC, Australia	35	21.6
Life cycle stage		
Introduction & growth stage	70	43.2
Maturity stage	84	51.9
Decline stage	8	4.9
Size		
500 employees or less	100	61.7
501 to 1000 employees	31	19.1
More than 1000 employees	31	19.1
Formal HR department		
Yes	146	90.1
No	16	9.9

### Respondents' Profile

Table 2 presents detailed figures concerning the respondents' profile. More than eighty percent of the respondents were HR or Personnel Managers or Assistant HR Managers. The other respondents (19.1%) were senior Administration or Senior HR executives. The highest number of respondents is Malays (62.3%) followed by

Chinese (27.8%). Indian and others make up 9.9 percent of the total. More than two third of the respondents in the sample were male (71.0%), female make up less than a third (29.0%) of the people responded to the survey. The table also indicate the majority of the respondents were below 45 years of age (72.3%). Most of the respondents (72.9%) have at least a bachelor's degree.

TABLE 2: RESPONDENTS' PROFILE

	No. of firms	Percentage
Position of respondents		
Director/Director of HR/General Manager		
General Manager of HR/Deputy General Manager – HR	11	6.8
Administration & HR/Personnel/HR Manager	99	61.1
Assistant HR Manager/Office Manager/Personnel Officer	21	13.0
Senior Administration/HR Executive	31	19.1
Race		
Malay	101	62.3
Chinese	45	27.8
Indian and others	16	9.9
Gender		
Male	115	71.0
Female	47	29.0
Age (years)		
Less than 36	39	24.1
36 – 40	44	27.2
41 – 45	34	21.0
46 – 50	31	19.1
51 – 55	10	6.2
More than 55	4	2.5
Education level		
SPM, STPM, Certificate, Diploma	44	27.2
First degree	84	51.9
Masters degree & PhD	34	21.0

Table 3 presents the results of multiple regression analyses, which analyses the relationship between HRM practices and profitability. Human resource planning and performance-based pay practices were found to be significant at .05 level. The results of the analyses also indicate that performance-based pay significantly influencing the profitability of the firm. The greater the extent of firms practicing human resource planning and performance-based pay the higher the profit of the firm. This result is consistent with Khatri (2000). There is no significant relationship between HRM practices of skills development and group-based incentives on profitability. Thus, hypothesis 1a is partially supported.

Similarly, hypothesis 1b states that there is a significant positive relationship between HRM practices and growth. Table 3 also shows that human resource planning, performance-based pay and group-based incentives practices were found to be significant at .01 level. The results of the analyses indicate that human resource planning; performance-based pay and group-based incentives significantly influence the growth of the firm. The

greater the extent of the firms practice human resource planning, performance-based pay and group-based incentives the greater the growth of the firm. Thus, hypothesis 1b is partially supported.

TABLE 3: THE RELATIONSHIP BETWEEN HRM PRACTICES AND PROFITABILITY

Independent variable	Profitability	Growth
R <sup>2</sup>	.39	.45
Adjusted R <sup>2</sup>	.36	.42
Sig. F	.00	.00
Standardized Coefficients (β)		
Skills development	.12	.03
Group-based incentives	.00	.24***
Human resource planning	.39***	.25***
Performance-based pay	.26***	.23***

\*\*\*significant at .01

#### The Moderating Effect of Environmental Uncertainty

As can be seen from Table 4, size of the firm and life cycle stage of the firm both have a significant effect on profitability of the firm. The results of the regression show that both human resource planning and performance-based pay have a significant effect on profitability. Environmental uncertainty moderates the relationship between human resource planning and profitability. On the other hand performance-based pay will have a greater impact on profitability in firms where the environment is more stable. Thus, hypothesis 2a is partially accepted.

Table 5 displays the moderating roles of environmental uncertainty on the relationship between HRM practices and growth. In step 1 it was discovered that control variable, length of operation has an effect on growth of the firm. The results show that environmental uncertainty does not moderate the relationship between HRM practices and growth. Thus, hypothesis 2b is rejected.

TABLE 4: THE MODERATING EFFECT OF ENVIRONMENTAL UNCERTAINTY ON THE RELATIONSHIP BETWEEN HRM PRACTICES AND PROFITABILITY

Variable	Step 1	Step 2	Step 3	Step 4
Control variable				
Length of operation <sup>a</sup>	.08	.02	.01	-.03
Size <sup>b</sup>	.17**	.07	.07	.09
Life cycle stage <sup>c</sup>	-.32***	-.14	-.14	-.16**
HRM practices				
SDEV		-.05	-.05	.44
GPINC		-.03	-.03	-.41
HRP		.41***	.41***	-.65
PPAY		.28***	.28***	1.12***
ENV			-.03	-.14
SDEV X ENV				-.77
GPI X ENV				.45
HRP X ENV				1.44***
PPAY X ENV				-1.01**
R <sup>2</sup>	.11	.40	.40	.46
R <sup>2</sup> change	.11	.28	.00	.06
F change	6.74	18.02	.22	4.10
Sig F change	.00	.00	.64	.00

Note: N = 162. \*\*p<.05, \*\*\*p<.01. Dummy coded: <sup>a</sup>less than 15 years = 1, more than 15 years = 0. <sup>b</sup> 500 employees or less = 1, more than 500 employees = 0. <sup>c</sup> Introduction & growth stage = 1, maturity & decline stage = 0.

TABLE 5: THE MODERATING EFFECT OF ENVIRONMENTAL UNCERTAINTY ON THE RELATIONSHIP BETWEEN HRM PRACTICES AND GROWTH

Variable	Step 1	Step 2	Step 3	Step 4
Control variable				
Length of operation <sup>a</sup>	.08	.02	.01	-.03
Size <sup>b</sup>	.17**	.07	.07	.09
Life cycle stage <sup>c</sup>	-.32***	-.14	-.14	-.16**
HRM practices				
SDEV		-.05	-.05	.44
GPINC		-.03	-.03	-.41
HRP		.41***	.41***	-.65
PPAY		.28***	.28***	1.12***
ENV			-.03	-.14
SDEV X ENV				-.77
GPI X ENV				.45
HRP X ENV				1.44***
PPAY X ENV				-1.01**
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Note: N = 162. \*\*p<.05, \*\*\*p<.01. Dummy coded: <sup>a</sup>less than 15 years = 1, more than 15 years = 0. <sup>b</sup> 500 employees or less = 1, more than 500 employees = 0. <sup>c</sup> Introduction & growth stage = 1, maturity & decline stage = 0.

## Discussion and Conclusion

With regard to the impact of HRM practices on profitability, we found that human resource planning and performance-based pay have a significant positive effect on profitability. These findings indicate that firms can improve their performance by practicing a greater extent of human resource planning and performance-based pay. This result is supported by many previous studies done by Huselid (1995), Khatri (2000). Likewise, this finding also shows that human resource planning; performance-based pay and group-based incentives have a significant positive effect on growth. These findings imply that firms that practice a greater extent of human resource planning, performance-based pay and group-based incentives seem to experience better growth than firms that do not.

Environmental uncertainty reflects the extent of predictability in the environment. The uncertainty of the environment refers to factors such as economic, technology, and political that are likely to influence a business organization. We postulate that the more unpredictable the environment, the greater the impact of HRM practices on profitability. This is because firms in an uncertain environment are able to differentiate themselves from competitors and because of that they have a competitive advantage over their competitors, which would translate into better profits for these firms.

We also postulated that the more unpredictable the environment, the greater the impact of HRM practices on growth. However, our findings show that environmental uncertainty does not moderate the HRM practices – growth relationship. This can be attributed to the overall situation whereby Malaysia was actually experiencing slow growth as a result of the Asian financial crisis that struck the country in late 1997. Some firms are still struggling to recover from that situation.

The findings of this study imply that the impact of HRM practices on profitability of the firm depended on the predictability of the environment. Firms that are able to differentiate themselves from others will be in a better position in terms of profit. The first limitation of this study is that this study is limited to the manufacturing sector only, thus generalization to other sectors is not possible. Secondly, requests for financial information limit the voluntary participation of respondents and thirdly, the survey on HRM practices is limited to non-managerial employees only, as such the results of this study could not be generalized to other levels of management. Future research could be extended to the service sector and financial sector as well. Future studies may consider using other non-financial dependent variables such as quality of work life, organizational citizenship behavior or organizational learning.

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# **Exploring the Antecedents of Needs and Job Satisfaction among Employees of a Leading Bank in Malaysia: Implications for Managing Bank Employees in Malaysia.**

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## **Abstract**

In view of the rising competition as a result of globalization, managers have placed great importance on the construct of job satisfaction. This paper investigated the perceptions of need satisfaction and job satisfaction for the employees of a leading bank in Malaysia. This study utilizes the Cornell Job Descriptive Index and the Porter Need Satisfaction Questionnaire. The findings indicated that salary, self-actualization and autonomy needs were regarded as the least fulfilled needs and the most important needs perceived by the employees were salary, self-actualization and job security needs. Results showed that respondents from the supervisory category generally perceived less need satisfaction compared to respondents from the clerical category. All five job facets of the Cornell JDI had strong significant relationships with overall job satisfaction and the partial correlation coefficients were above 0.70. Meanwhile, almost 36% of employees are not satisfied with promotion opportunities which is the most important job facet influencing the level of job satisfaction.

## **Introduction**

There has been a convergence of interest by organizations to examine the facets that contribute to greater job satisfaction. This may be due to the perception that job satisfaction will lead to better quality work performance and employees will be more committed towards their organizations (Carroll and Tosi, 1977). While the concern for employee satisfaction in Malaysia is high, there are very few research done on job satisfaction amongst employees in the financial institutions. Most knowledge of job satisfaction comes from journal articles, individual experiences, opinions of scholars and corridor conversation (Saiyadain, 1996).

Job satisfaction as a construct has been defined differently by various scholars. The term was first defined by Hoppock (1935) as a combination of psychological, physical and environmental circumstances that cause a person to say, "I am satisfied with my job". Among the most accepted definition of job satisfaction is by Locke (1969) who defines job satisfaction as an positive emotional feeling as a result of one's evaluation towards his job or his job experience by comparing between what he expected from his job and what he actually gets. Job satisfaction is the result of the interaction of the employees' values and his perception towards his job and environment. This definition is in line with Smith et al.(1969) that job satisfaction is the feeling or emotional reaction of an individual towards certain aspects of the working environment.

Nasurdin and Ramayah (2003) cited the work of O'Reilly and Caldwell (1980) that both task and organizational rewards contribute to job satisfaction. Task rewards are intrinsic rewards directly associated with the job such as interesting and challenging work, variety and opportunities to use one's skills. Organizational rewards are the tangible rewards that are visible to others such as pay, promotions and comfortable working conditions.

There are many ways to measure this construct. However, the Cornell Descriptive Index (Cornell JDI) has been well accepted by many employees as a measurement tool which has been well formulated to measure job satisfaction (Smith, Kendall, and Hulin, 1969). It measures job satisfaction in terms of 5 aspects ie. salary, promotion opportunities, relationship amongst co-workers, supervision and the nature of work itself. Besides, Poon and Ainuddin (1990) has cited the work of Muchinsky (1977) that the JDI has been shown by extensive research to be a reliable and valid measure of job satisfaction.

This is in line with Dessler (1985) opinion that job satisfaction can be measured by measuring the degree of satisfaction of an employee towards salary, promotion opportunities, recognition etc. Locke (1969) mentioned that a job satisfaction index can be obtained by summing up the employee's evaluation towards all aspects of the job and it

is not necessary to allocate importance to each of the job facets as it has been reflected in the employee's satisfaction towards each of the job facet. This conclusion is supported by Mobley and Locke (1970) that there is a correlation between the importance of the employees' values and his satisfaction towards that value and the researchers also highlighted several other studies that weighted scores do not predict job satisfaction better compared to unweighted scores such as Decker (1955); Ewen (1967); and Schaffer (1953).

Meanwhile, Saane, Sluiter, Verbeek, and Frings-Dresen (2003) found out that seven job satisfaction instruments met the defined reliability and validity criteria ie. the Job in General Scale(JIG), the Andrew and Withey Job Satisfaction Questionnaire, the Job Satisfaction Survey(JSS),the Emergency Physician Job Satisfaction Instrument(EPJS),the McCloskey/Muller Satisfaction Scale(MMSS), the Measure of Job Satisfaction(MJS) and the Nurse Satisfaction Scale(NSS). Only the Measure of Job Satisfaction(MJS) has an adequate content validity.

Besides, Chu, Hsu, Price, and Lee (2003) cited the model proposed by Price, Mueller and colleagues that hypothesized 11 exogenous variables to have direct influence on job satisfaction. The variables are job involvement(one's willingness to exert effort on the job); positive affectivity versus negative affectivity(the degree to which an individual feels enthusiastic over time and across situations); autonomy(the degree of power that an employee can exercise over his/her job and work environment); distributive justice( the degree to which rewards are related to performance inputs; procedural justice(the degree to which rights are applied universally to all members of an organization; job stress(the extent to which job duties are difficult to fulfil); pay; promotional chances; routinization (the degree to a job is repetitive) and social support(assistance with job-related problems provided by co-workers, supervisors and family members). It was discovered in the study on non-supervisory nurses in Taiwan that six of the variables namely involvement, positive and negative affectivity, job stress, routinization and co-worker support are significantly influencing job satisfaction and explains 45% of the variance of job satisfaction. This findings suggest that the Price and Mueller model work fairly well in explaining job satisfaction in a non-western country.

Besides, employees are motivated to satisfy various types of needs including physiological, job security and self-esteem and needs fulfillment will have a significant impact on employee behavioral responses such as job satisfaction, job performance, intention to quit etc. Hence, it is important to identify the needs satisfaction levels of the employees in banks to avoid losing many experienced and well trained employees (Maslow, 1943; Pinder, 1984 and Steers & Porter, 1987).

## **Problem Statement**

The banking scenario in Malaysia has changed completely since the Asian economic crisis. The banks are witnessing fundamental shift in working attitude and work style due to the impact of globalization and increased competition. Many banks have adopted the new customer-centric work environment and this has changed dramatically the roles and job requirement for bank employees. Additionally, the existing expertise of the employees is constantly being challenged by new requirements and expectations of the authorities and management.

Hence, the rapid change in the banking business environment and the demanding working environment will definitely influence the level of needs and job satisfaction of bank employees. In this instance, it is important for the management of Bank X to identify the important factors influencing the level of needs and job satisfaction since human resources is the most important capital asset in the banking industry. The findings of the study will reflect the desired needs of the employees in the banking industry.

## **Objectives of the Study**

The main objectives of this study were to identify the factors influencing the level of needs and job satisfaction among employees of Bank X.

Specifically, the objectives were:-

- a) To measure the level of perceived needs satisfaction of the employees of Bank X utilizing the Porters' Needs Satisfaction Questionnaire (1961) based on the Maslow's Hierarchy of Needs

- b) To identify the level of perceived importance of the various categories of needs based on the Porters' Needs Satisfaction Questionnaire (1961)
- c) To examine whether there are any significant differences in the level of needs satisfaction between employees from different category of work, namely supervisory and clerical employees
- d) To measure the level of job satisfaction of employees working in Bank X using the Cornell Job Descriptive Index(Cornell JDI).
- e) To examine whether there is significant relationship between each of the facets in the Cornell JDI and overall job satisfaction
- f) To examine whether there is any relationship between age, gender, job category, experience and level of education and level of job satisfaction.

## **Job Satisfaction**

There has been many past studies conducted on the construct of job satisfaction. The importance of job satisfaction towards productivity was first highlighted by the Hawthorne studies in the 1920s where it was concluded that when workers receive special attention, their productivity is likely to improve whether or not working conditions actually change.

Hoppock (1935) forwarded a traditional approach to job satisfaction where job satisfaction is a result of various factors in the working environment and if these factors are present, job satisfaction will arise otherwise job dissatisfaction will arise. In other words, the same factors influence job satisfaction and job dissatisfaction. Hoppock's preposition is supported by Khaleque and Rahman (1987) who also highlighted the importance of good relationship between co-workers towards job satisfaction. Vroom (1964) also cited many past studies which confirmed the importance of good relationship between co-workers towards job satisfaction of employees. Herzberg, Mausner, and Snyderman (1959) on the other hand distinguished the factors like the working environment, pay, company policies etc that eliminates job dissatisfaction as the hygiene factors while the factors creating job satisfaction like challenging work, responsibility, recognition and achievement as motivators.

Mumford (1991) have categorized the various thoughts of job satisfaction into several categories which include the psychologists such as Maslow, Herzberg, Likert etc who viewed motivational development as the primary factor influencing job satisfaction; the psychologists such as Blake & Mouton and Fiedler who viewed that the supervisors' behavior and they studied the relationship between leadership styles and job satisfaction; the Manchester Business School studies which emphasizes the importance of rewards system towards job satisfaction; Crozier (1964) and Gouldner (1955) studies which emphasize the importance of organizational values such as punishment, delegation of power and bureaucracy; and finally the behavioral scientists who emphasizes on the importance of job content and the process of developing the jobs.

## **Needs Satisfaction**

There are many definitions and interpretations about the concept of needs. Several categories of needs are examined by the motivational theories such as Maslow Hierarchy of Needs (1954), Herzberg Two Factor Theory (1959) and the existence, relatedness and growth theory(ERG theory) by Alderfer (1969) and Locke (1976) value theory. Employees satisfy their needs through activities and outcomes from their work experiences. Common categories of employees' needs identified in the studies were physiological, job security, social, salary, autonomy, self-esteem and self-actualization. Pinder (1984) defines needs satisfaction as the feeling of a person when the tension felt by him as a result of unfulfilled needs are removed.

## **Needs Satisfaction and Job Satisfaction**

Job Satisfaction is often defined as a function of the extent of perceived needs satisfaction by the employees through their work experiences (Pinder, 1984; McCormick & Tiffin, 1974; Locke, 1969). Hence, this paper attempts to explore the relationship between needs satisfaction and job satisfaction among bank employees.

## **Theoretical Frameworks For Job Satisfaction**

There are 2 categories of job satisfaction theories ie. the content and process theories (Gruneberg, 1979). The content theories examines factors influencing job satisfaction such as Maslow Hierarchy of Needs (1954), Herzberg Two Factor Theory (1959) and the existence, relatedness and growth theory (ERG theory) by Alderfer (1969). The process theories examines the process of interaction between variables such as expectation, needs and values and the job characteristics to create job satisfaction. Examples of process theories are the equity theory by Adams (1963) which is concerned with individuals' beliefs about how fairly they are treated compared with their peers; Vroom (1964) expectancy theory which states that people choose among alternative behaviours according to their expectation that a particular behaviour will lead to one or more desired outcomes; and Locke (1976) value theory which states that the employees' values are influential factors of job satisfaction and the values consist of job related values such as achievement and sense of success towards the job as well as non-job related factors such as increase in salary, promotion opportunities and recognition.

Maslow (1954) identified two levels of needs ie. lower order needs such as physiological needs and security needs and higher order needs such as affiliation, esteem and self-actualization needs. He assumes that lower order needs must be satisfied before higher level needs become strong to stimulate behaviour. However, Onedo and Ojuka (1991) found out that cultural differences and differing stages of economic development affect the degree of importance attached to the 5 needs categories. On the other hand, Alderfer (1969) who proposed the ERG theory said that people strive to meet a hierarchy of existence, relatedness and growth needs and if efforts to reach one level of needs are frustrated, the individual will regress to a lower level of needs.

Herzberg et al.(1959) categorized the hygiene factors as factors that can eliminate job dissatisfaction and motivators as factors that can create job satisfaction. Herzberg's emphasis on the importance of motivators compared to the hygiene factors as factors that contribute to job satisfaction is true and generally accepted (Locke, 1976; Lok and Crawford, 1999). However, there were many studies and reports which did not support Herzberg's model and also questioned the methodology adopted by Herzberg such as Gruneberg (1979); McCormick and Tiffin (1974); Dunnette, Campbell, and Hakel (1967); Armstrong (1971); Hulin and Smith (1967); and Hinton (1968).

Witt and Nye (1992) reported that there were many studies which supported the predictions of the equity theory (Adams, 1963) that people will be more dissatisfied and motivated to change when they are in disequilibrium compared to when they are in equilibrium with others in terms of the input-output ratio and the relationship between equity and satisfaction is stronger for men compared to women implying that women do not place much importance on salary and promotion compared to men.

## **Organizational Factors Influencing Job Satisfaction**

Robbins (2004) concluded that there are five categories of factors influencing job satisfaction ie. challenging job; equitable reward system which include salary and promotion opportunities; conducive working environment and good relationship between co-workers. Ronan and Organt (1973) have reported many studies that salary is one of the main factors influencing job satisfaction. One recent study by Egbule (2003) suggest that salary, working conditions and status of universities affect job satisfaction of academic staff in Nigerian universities. Comparison salary was found to be an important influence on academics' overall job satisfaction of Scottish academics (Ward and Sloane, 2000).

Meanwhile, Korman (1977) listed both working environment factors and personal factors to explain job satisfaction. Among the working environment factors are the level of job category, job variety, caring leadership

style by the supervisors, promotion opportunities and reward system as well as social interaction and teamwork. On the other hand, Hui and Yee (1999) found out that positive workgroup atmosphere resulted in higher job satisfaction among collectivists than individualists.

Among the personal factors there are positive relationships between age and job satisfaction by controlling factors such as level of job category (Saleh and Otis, 1964); there are negative relationships between the level of education and job satisfaction by controlling the level of job category and there is no conclusive evidence that women are more satisfied than men though other factors such as category and level are held constant. Korman (1977)'s comments that the working environment and personal factors are influencing job satisfaction are in line with Vroom (1964)'s opinion that job satisfaction can best be explained using both working environment and personal factors.

Hackman and Oldman (1976) has highlighted in their Job Characteristics Model that job characteristics such as skills variety, task identity, task significance, autonomy and feedback are important determinants of job satisfaction. For employees who would want to satisfy their higher needs from their job, those jobs that are high on task variety, autonomy, task identity and feedback will generate high job satisfaction (Hackman and Lawler, 1971; Stone, 1976; Gerhart, 1987). Prichard and Peters (1974) found out that intrinsic factors such as achievement and autonomy explains nine times the variances in job satisfaction and also has higher correlation with overall job satisfaction compared to extrinsic factors such as salary, promotion opportunities and recognition.

Supervisory practices is perhaps one of the most thoroughly explored variables contributing to job satisfaction. Since the publication of Michigan Leadership Studies by Katz, Mccoby, and Morse (1950), a large number of studies have been conducted to identify supervisory styles leading to satisfaction and there is overwhelming evidence that the participative and involving style of supervisors has a more positive effect on the job satisfaction of the employees (Saiyadain, 1996; Lunjew et al., 1994; Kim, 2002). Meanwhile, Burns (1978) describes transformational leadership as followers and their leaders inspiring each other to achieve "higher levels of morality and motivation" while transactional leadership refers to exchange relationships between the leaders and their followers to fulfill self-interests. Transformational leadership was often demonstrated to have stronger relationship with job satisfaction (Haji Busari and Chang, 2003; Chiok, 2001; Bogler, 2001).

## **Personal Characteristics Influencing Job Satisfaction**

Review of the literature on the relationship between personal characteristics and job satisfaction suggests that the former contributes in varied and complex ways to the attitudes employees have towards their jobs (Saiyadain, 1996). While generally women have been found to be more satisfied with their job than men (Dunham and Herman, 1975; Liou, et al., 1990), few studies suggest no differences in the satisfaction scores between male and female employees (Ghazali, 1979; Furnham and Schacffer, 1984; Hashim, 1985; Weaver, 1977; Witt and Nye, 1992; Saiyadain, 1996; Ward and Sloane, 2000; 2001).

Sauser and York (1978) found out that differences in job satisfaction between men and women are due to several other factors which changes along with gender and gender is not the single factor influencing job satisfaction. This is in line with the research findings and opinions by Herzberg et al.(1959) that there were no studies which showed consistent job satisfaction differences among men and women. Hulin and Smith (1967) also share the same opinion that once the effect of the other factors are controlled, differences of job satisfaction between men and women becomes not significant. However, Varca, Shaffer, and McCauley (1983) found out that job category moderates job satisfaction levels between men and women towards salary and promotion opportunities while Ward & Sloane (2001) suggest that age cohort moderates the influence of age towards job satisfaction.

Mottaz (1986) tested Locke (1969) value theory whether there is any differences in the perception of the rewards system offered by their jobs in relation with their work values among men and women. Results showed that men and women have significant differences in their perception of the rewards system. This may be explained by men who perceived more intrinsic reward, better working environment, salary and better opportunities while women perceive better supervision and support from their co-workers.

Most studies have found positive relationship between age and job satisfaction (Kong, Chye, and Hian, 1993; Weaver, 1977; Hulin and Smith, 1967;). However, some recent evidence suggests that the assumed direct relationship between age and job satisfaction may be questionable. Older employee may experience a downturn in job satisfaction, suggesting a curvilinear relationship between age and job satisfaction (Luthans and Thomas, 1989; Zeitz, 1990; Kacmar and Ferris, 1989;). Meanwhile, there are some other past studies suggesting that job satisfaction may be independent of age (Wright, 1987) or may be inversely related to age (Ghazali, 1979). Synder and Dietrich II (1992) and Zeitz (1990) suggested that there are moderating variables affecting the relationship between age and job satisfaction and these factors may explain the inconsistencies of research findings. Some of the moderating variables suggested by the researchers are job category, job characteristics, non job related social roles, attitudes, values, communication abilities etc.

Highly educated employees have generally been found to be not satisfied with their jobs (McDonald and Gunderson, 1974; Ghazali, 1979; Saiyadain, 1985). It is generally accepted that the more educated feel more frustrated in routine jobs (Saiyadain, 1996). However, one study reported no relationship between education and job satisfaction (Hashim, 1985). As far as length of service is concerned, its correlation with job satisfaction is not conclusive. Some studies found no relationship (Rao, 1970; Saiyadain, 1985), some found a linear relationship (Hashim, 1985; Salleh, 1988) and some others found a U-shape relationship (McDonald and Gunderson, 1974).

## **Past Studies on Needs Satisfaction**

There were many studies conducted on the construct of needs satisfaction since the work of Porter (1961). The studies were conducted in various industries including manufacturing, financial, hospitals and also on professionals such as accountants, students etc. The most often cited study was Porter (1961) study of needs satisfaction on the perceived needs satisfaction among the middle and lower level managers utilizing the needs satisfaction deficiency method whereby the higher the perceived deficiency in terms of needs satisfaction, the employees will experience higher needs dissatisfaction. In the study, the lower level managers experienced higher needs satisfaction deficiency and the middle level managers were more satisfied in terms of their job security, autonomy and self-esteem needs. In addition, both groups of managers perceived that they were not satisfied with the job security and self-actualization needs which were their most important needs. Similar findings were reported in Porter (1962) utilizing larger sample size of about 2000 respondents. Hence, this study investigates whether there are any significant differences in the level of needs satisfaction between employees from different category of work, namely supervisory and clerical employees

Meanwhile, Porter(1963) reported interesting findings that the employees' position in the organization influenced the perceived importance of the categories of employees' needs. In this respect, managers in higher managerial position perceived the autonomy and self-actualization needs as more important compared to lower level managers.

Studies conducted in the over the last four decades had explored the antecedents of needs satisfaction and found that demographic, culture, environment, job level, job category and the size of the organization influenced the level of needs satisfaction among the employees (Rhinehart, Barrell, Dewolfe, Griffin, and Spaner, 1969; Strawser et al., 1969; Slocum, 1971; Root & Tosi, 1973; Stephens et al., 1980; Onedo, 1991; Khojasteh, 1993; Karl & Sutton, 1998).

## **Methodology**

The objectives of this study are summarized by Figure 1 below. It attempts to measure the level of needs satisfaction based on Porter's Need Satisfaction Model (1961). The findings of the level of needs satisfaction formed the basis of discussion for the level of job satisfaction of the employees.

The independent variables of this study are all the five facets of job satisfaction according to the Cornell Job Descriptive Index (JDI) ie. the nature of work, supervision, salary, promotion opportunities and relationship between co-workers as well as some of the selected demographic variables such as age, gender, years of work,

academic qualification and category of work. The dependent variable of this study is overall job satisfaction and also satisfaction of the worker towards each of the facets of job satisfaction namely satisfaction towards the nature of work, supervision, salary, promotion opportunities and relationship between co-workers.

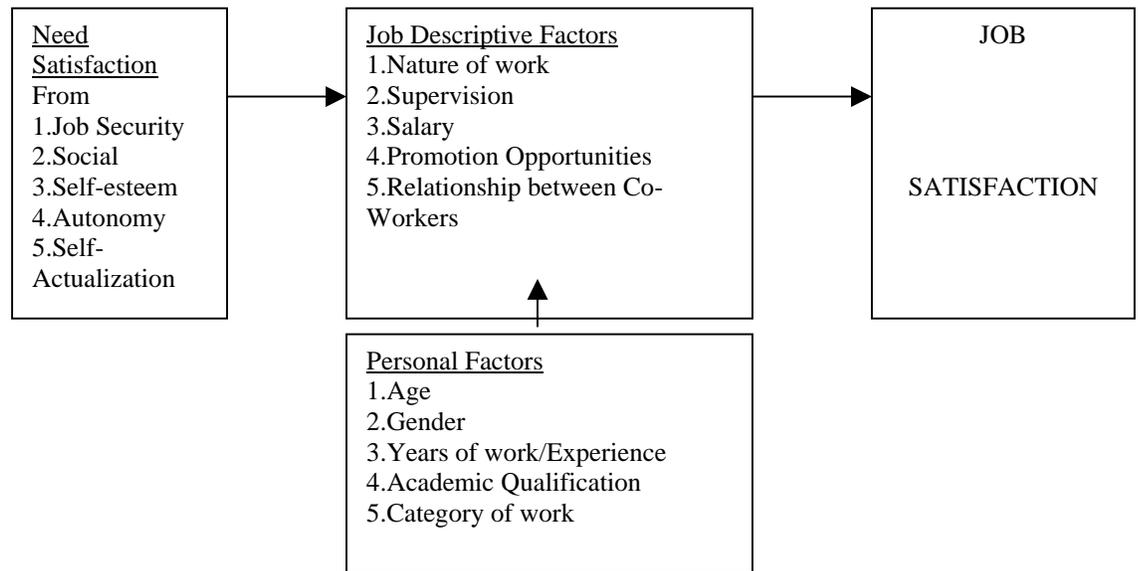


FIG. 1: THE THEREOTICAL FRAMEWORK

## Sample

Data for this study was collected through self-administered questionnaire sent to employees attending training at the Bank's training centre. This approach was chosen as employees attending training at the center are selected from the bank's branches throughout Malaysia. Hence, the random sample taken will be representative of the bank's employees in Malaysia. The sampling frame is all the bank's employees working in Malaysia. A total of 200 questionnaires were mailed along with self-addressed envelopes to the respective employees. Of these, 121 were completed and returned, amounting to a 61% response rate. In order to encourage the participants to respond, they are given an option to indicate whether they are interested to know their job satisfaction scores and confidentiality is also assured.

## Measurement Instrument

The Porter (1961) Needs Satisfaction Questionnaire (NSQ) which is the most popular instrument used by researchers to measure the level of needs satisfaction was adopted to gauge needs satisfaction in an organizational context. The NSQ was used to assess the level of organizational resources relevant to the needs experienced by the employee, the level of employee needs that are pursued on the job and the congruence between a person's needs and organizational resources, with greater congruence reflecting increased need fulfillment by the organization. Four need categories, including seven needs based on Maslow's hierarchy were covered by the NSQ measure. These are:

- Survival needs:
- Security needs (1 item), and
- Pay (1 item)
- Social needs:

- Need of interpersonal interactions and friendships(2 items), and
- Need for membership and being-in-the-know in a significant social group(1 item)
- Ego needs:
  - Need for self-esteem(3 items), and
  - Need for autonomy(4 items)
- Self-actualization needs(3 items)

Using security needs as an example, respondents were asked: “The feeling of security in my job: (a) How much feeling of security is there now in your job?; (b) How much feeling of security do you feel should be in your job? and (c) How important is the feeling of security to you in your job? The response scale is a 7-point scale varying from “minimum” (1) to “maximum” (7). Need satisfaction (an index of congruence between organizational resources and personal needs) is derived by taking the absolute difference between “is” (organizational resources) and “should” (need) scores. Hall et al., 1970; Cohen et al., 1997; Golembiewski and Sun, 1989, 1989, 1990 (as cited in Sirgy, Efraty, Siegel, and Lee, 2001, p.244) established the nomological (predictive) validity of this measure. Meanwhile, the face validity and discriminant validity of this instrument was established by Mitchell & Moudgill (1976) and Porter & Lawler (1968) respectively.

The instrument to measure job satisfaction is the questionnaire based on the Cornell Job Descriptive Index(Cornell JDI). It measures job satisfaction according to five dimensions ie. nature of work, supervision, salary, promotion opportunities and relationship among co-workers. The study has also adopted the Cornell JDI translated into the Malay language by Ariffin (1981). The instrument is worded in both English and Malay languages to facilitate understanding of the items of the instrument. Jaafar (1996) has also reported that the Cornell JDI has been used in several local studies in Malaysia (Ariffin, 1981; Jacob, 1980; Narander Singh, 1987; Othman, 1986; Selwendran, 1989; Zaiton, 1982) and the instrument is widely used because it is simple and hence does not require the respondents to be highly proficient in the English language; easily understood and proven suitable in several researches. Zaiton (1982) reported that Cornell JDI has high content validity. The different facets of job satisfaction were designed after extensive review of the literature and the correlation between the job satisfaction scores of the Cornell JDI and job satisfaction scores from other job satisfaction instruments is at least 0.70 (Smith et al. 1969). Meanwhile, Smith et al.(1969) reported high internal consistency with Cronbach alpha coefficient of between 0.80 and 0.88. Kacmar and Ferris (1989) supported the findings of Smith et al., (1969). In addition, Feratt(1981) has reported several studies which supported the hypotheses that overall job satisfaction is a linear function of satisfaction towards a few facets of job and a linear job satisfaction model will generate job satisfaction scores which are as effective as other non-linear job satisfaction models.

There are three parts to the questionnaire. The first part attempts to get the respondents’ background in terms of gender, race, religion, academic qualification, marriage status, age, salary, working experience and job category.

The second part consists of the Porter’s Need Satisfaction Questionnaire to measure the level of needs satisfaction and the importance of the various categories of employee needs.

The third part consists of the Cornell JDI which will require the respondents to describe their satisfaction towards each of the five facets of job satisfaction, namely satisfaction towards the nature of work, supervision, relationship between co-workers, salary and promotional opportunities.

If the respondents’ response to a particular item corresponds with the required answer as per the Cornell JDI, three points will be allocated, otherwise no marks will be given. However, if the respondents are not sure whether the particular item describes his job satisfaction level, then one point will be given. This process will be repeated until the satisfaction scores towards each of the facets of job satisfaction are computed. The respondents’ overall job satisfaction scores will be obtained by summing up all the satisfaction scores towards each of the dimensions of the Cornell JDI.

## Analysis of Data

The SPSS statistical package was used to analyze the data and generate research findings. Descriptive statistics such as percentages, frequency, mean and correlation were presented to report the background of the respondents such as gender, age, marital status, education level, working experience and job category as well as the level of perceived needs satisfaction, level of perceived importance of the various categories of needs and the level of job satisfaction. Independent samples t tests were used to test significant differences in the level of needs satisfaction between employees from different category of work, namely supervisory and clerical employees.

Significant relationships between each of the facets in the Cornell JDI and overall job satisfaction were tested by using the Pearson r zero-order. Next, the partial regression coefficient will be used to test the predictive power of each of the facets of the Cornell JDI towards overall job satisfaction when the effects of the other facets are being controlled.

The Pearson r correlation coefficient, t tests and ANOVA were used to test whether there is any significant relationship between age, gender, job category, experience and level of education and level of job satisfaction.

## Findings

The demographic profile of the respondents are presented in Table 1 below:-

TABLE 1: DEMOGRAPHIC PROFILE

Background	Frequency	Percentages (%)
<b>Gender</b>		
1.Male	54	44.6
2.Female	67	55.4
<b>Academic Qualification</b>		
1.SRP	2	1.7
2.SPM	62	51.2
3.STPM	20	16.5
4.Diploma	12	9.9
5.Degree	25	20.7
<b>Age Groups</b>		
Less than 21 age	3	2.5
21-29++ years	73	60.3
30-39++ years	27	22.3
Above 40 years	18	14.9
<b>Working Experience</b>		
Less than 1 year	1	0.8
1-5 years	57	47.1
6-10 years	32	26.4
More than 10 years	31	25.6
<b>Job Category</b>		
<b>Executives</b>	67	55.4
<b>Clerks</b>	54	44.3

Table 2 shows that the employees are very dissatisfied with salary (mean =1.73), the opportunity for participating in the determination of methods and procedures (mean =1.73) and the feeling of self-fulfillment (mean

= 1.70). In terms of needs category, the employees are very dissatisfied with the need for self-actualization (mean= 1.58) and the need for autonomy (mean=1.41). Meanwhile, the employees are most satisfied with the social needs (mean =0.78).

TABLE 2: NEEDS SATISFACTION MEAN SCORES DEFICIENCY FOR EACH ITEM OF THE NSQ AND CATEGORIES OF EMPLOYEE NEEDS

Items and needs category	Mean Scores
1. Feeling of security in the job	1.33
2. Social	
a.The opportunity to give help to other people	0.80
b.The opportunity to develop close association and friendship	0.76
Mean for category	0.78
3. Self-esteem	
a. The feeling of self-esteem obtained	1.26
b The prestige of the position within the company	1.21
c The prestige of the position outside the company	1.10
Mean for category	1.19
4. Autonomy	
a.The opportunity for independent thought and action	1.16
b.The opportunity for participation in the setting of goals	1.59
c.The authority given by the company	1.11
d.The opportunity for participating in the determination of methods and procedures	1.73
Mean for category	1.41
5. Self-Actualization	
a.The opportunity for personal growth and development	1.43
b.The feeling of worthwhile accomplishment	1.60
c.The feeling of self-fulfillment	1.70
Mean for category	1.58
6. Salary	1.73
7. The feeling of being informed	1.55
Note: The higher the mean scores deficiency, the lower the level of needs satisfaction	

Table 2 showed that the employees are very dissatisfied with salary (mean = 1.73), the opportunity for participating in the determination of methods and procedures (mean = 1.73) and the feeling of self-fulfillment (mean = 1.70). In terms of needs category, the employees are very dissatisfied with the need for self-actualization(mean=1.58) and need for autonomy (mean = 1.41). Meanwhile, the employees are most satisfied with the social needs(mean = 0.78).

Table 3 below showed the three most important perceived needs are job security (mean = 6.23), salary (mean = 6.17) and self-actualization (mean = 6.09).

TABLE 3: THE MEAN SCORES FOR THE PERCEIVED IMPORTANCE OF THE VARIOUS CATEGORIES OF NEEDS

Items and needs category	Mean Scores
1. Feeling of security in the job	6.23
2. Social	
a.The opportunity to give help to other people	6.02
b.The opportunity to develop close association and friendship	5.90
Mean for category	5.95
3. Self-esteem	
a. The feeling of self-esteem obtained	6.06
b The prestige of the position within the company	5.64
c The prestige of the position outside the company	5.61
Mean for category	5.76
4. Autonomy	
a.The opportunity for independent thought and action	5.92
b.The opportunity for participation in the setting of goals	5.62
c.The authority given by the company	5.39
d.The opportunity for participating in the determination of methods and procedures	5.46
Mean for category	5.60
5. Self-Actualization	
a.The opportunity for personal growth and development	6.12
b.The feeling of worthwhile accomplishment	6.01
c.The feeling of self-fulfillment	6.16
Mean for category	6.09
6. Salary	6.17
7. The feeling of being informed	6.06
Note: The higher the mean scores, the higher the perceived importance for the particular need category (min=1 & max = 7)	

From Table 3, the three most important perceived needs are job security (mean = 6.23), salary (mean =6.17) and self-actualization (mean = 6.09). Table 4 below showed significant differences were found in the mean scores deficiency for the overall needs satisfaction between the supervisory and clerical employees. This may be due to the significant differences of the two needs category ie. autonomy and self-actualization as well as the needs items of the opportunity to develop close association and friendship, the opportunity for participation in the setting of goals, the opportunity for participating in the determination of methods and procedures and the feeling of worthwhile accomplishment. The supervisors were less satisfied than the clericals in all the above mentioned categories and items of needs.

TABLE 4: MEAN SCORES FOR NEEDS SATISFACTION DEFICIENCY ACCORDING TO JOB CATEGORY

Items and needs category	Scores (Supervisor)	Scores (Clerical)	t value
1. Feeling of security in the job	1.32	1.35	-0.15
2. Social			
a.The opportunity to give help to other people	0.83	0.76	0.47
b.The opportunity to develop close association and friendship	0.96	0.57	2.73*
Mean category	0.89	0.67	1.78
3. Self-esteem			
a.The feeling of self-esteem obtained	1.16	1.35	-1.07
b.The prestige of the position within the company	1.16	1.26	-0.54
c.The prestige of the position outside the company	1.24	0.97	1.60
Mean category	1.19	1.19	-0.06
4. Autonomy			
a.The opportunity for independent thought and action	1.29	1.04	1.63
b.The opportunity for participation in the setting of goals	1.87	1.33	2.36*
c.The authority given by the company	1.20	1.02	1.06
d.The opportunity for participating in the determination of methods and procedures	2.00	1.50	2.34*
Mean category	1.61	1.22	2.56*
5. Self-Actualization			
a.The opportunity for personal growth and development	1.61	1.27	1.92
b.The feeling of worthwhile accomplishment	1.87	1.36	2.79*
c.The feeling of self-fulfillment	1.88	1.54	1.83
Mean category	1.80	1.39	2.92*
Overall needs satisfaction	18.33	15.36	2.18*
6. Salary	1.87	1.61	1.12
7. The feeling of being informed	1.70	1.41	1.36

Note: The higher the needs satisfaction mean scores deficiency, the lower the level of needs satisfaction

\* significant t tests (2 tails) at the  $p < 0.05$  level.

### Satisfaction Levels

The overall job satisfaction levels findings revealed that about 65.3% and 33.1% of the respondents are moderately satisfied and very satisfied respectively. Meanwhile, satisfaction towards the nature of work, salary, promotional opportunities, supervision and relationship between co-workers are presented in Table 5 below.

TABLE 5: PERCENTAGES OF THE JOB SATISFACTION LEVELS TOWARDS EACH ASPECTS OF WORK

Types of satisfaction	Not Satisfied	Moderately Satisfied	Very Satisfied
Satisfaction towards the Nature of Work	6.6	66.1	27.3
Satisfaction towards Salary	35.5	51.2	13.2
Satisfaction towards Promotional Opportunities	35.5	36.4	28.1
Satisfaction towards Supervision	4.1	43	52.9
Satisfaction towards Relationship between Co-Workers	1.7	33.9	64.5

Findings in Table 5 indicated that 65.3% of the employees who are moderately satisfied in terms of overall job satisfaction may be due to the majority of the employees are moderately satisfied towards the nature of work, salary and promotional opportunities while 52.9% and 64.5% of the employees are very satisfied towards supervision and relationship between co-workers. On the other hand, about 65% of both men and women employees are moderately satisfied towards their overall job satisfaction.

Table 6 below showed that all the aspects of work as per the Cornell JDI have significant relationship with overall job satisfaction. Meanwhile, satisfaction towards promotion opportunities demonstrated the strongest linear relationship with overall job satisfaction, followed by satisfaction towards supervision, salary, nature of work and co-workers respectively. It is observed each facets of job satisfaction in the Cornell JDI are important in measuring job satisfaction as the partial correlations coefficients which measure the main effects of each of the facets towards overall job satisfaction is above 0.70.

TABLE 6: BIVARIATE AND PARTIAL CORRELATIONS BETWEEN SATISFACTION TOWARDS THE NATURE OF WORK, SALARY, PROMOTIONAL OPPORTUNITIES, SUPERVISION AND CO-WORKERS WITH OVERALL JOB SATISFACTION

Types of Satisfaction	Bivariate Correlation between Satisfaction towards each aspect of Cornell JDI and Overall Job Satisfaction	Partial Correlation between Satisfaction towards each aspect of work and Overall Job Satisfaction
Satisfaction towards the Nature of Work	0.631**	0.750**
Satisfaction towards Salary	0.532**	0.8002**
Satisfaction towards Promotional Opportunities	0.783**	0.8218**
Satisfaction towards Supervision	0.503**	0.810**
Satisfaction towards Co-Workers	0.416**	0.709**

\*\* correlations are significant at  $\alpha= 0.01$  level(2-ends)  
where  $p=0.000$  for all correlations

Meanwhile, there is no significant relationship between the demographic variables of this study and job satisfaction except for age and length of service which demonstrated significant relationships with satisfaction towards the nature of work.

## Discussion

Almost 65% of the employees are moderately satisfied and this finding can be explained by the Herzberg Two Factor Theory (1959) that employees will only be satisfied when their basic needs ie. hygiene factors such as annual leave, annual increase in salary, allowances, equipment and housing, EPF contribution and conducive working environment provided by the Bank are satisfied. In these aspects, the Bank has provided almost all the hygiene factors to its employees. However, promotion opportunities in the Bank is rather limited and based more on seniority rather than performance, though changes are on the way whereby promotion opportunities are more performance based rather than seniority based. There is evidence that almost 35% of the employees are not satisfied towards salary and promotion opportunities, though these are important factors influencing job satisfaction.

Generally, all the aspects of work in the Cornell JDI ie. satisfaction towards the nature of work, salary, promotion opportunities, supervision and co-workers are significant in influencing the job satisfaction of employees of Bank X. The hierarchy of relationship strength between each dimension of the Cornell JDI and overall job satisfaction in descending order is opportunities for promotion, supervision, salary, nature of work and co-workers. The findings are consistent with the findings of several studies such as Smith et al.(1969); Kacmar and Ferris(1989) and Zaiton (1982) that Cornell JDI has been well accepted by employees as a measurement tool with high validity and reliability which has been formulated thoroughly and it is also a good measurement tool of the construct of job satisfaction which is defined by Locke (1969) as an emotional reaction by employees as a result of his evaluation whether his job can satisfy his important values or not.

The relationship between satisfaction towards the nature of work and overall job satisfaction is strong and significant as evident by the Pearson r coefficient of 0.750. This may be explained by the perception and aspiration of the employees towards their work. Those employees who have high aspirations towards their work will

experience high job satisfaction. This is explained by Vroom's (1964) expectancy theory of measuring job satisfaction whereby an individual will only be committed to his job if he is aware that there is a strong relationship between his effort and achievement and also rewards which are important to him. Hackman and Oldman (1975) also mentioned that the characteristics and nature of work is an important determinant of job satisfaction. The importance of the nature of work in influencing job satisfaction is also highlighted by Locke (1969) that job satisfaction is the result of relationship between what is expected from the job and what is actually experienced by the employee.

Meanwhile, the need for job security emerged as the most important perceived employee need mainly due to the current employment scenario in the Malaysian banking industry whereby job security is more performance driven rather than seniority driven. Moreover, the many voluntary separation schemes (VSS) offered during the Asian regional economic crisis in 1998 and the banking industry merger exercise in 1999-2001 may have affected the sentiment of the employees.

This study revealed that employees are dissatisfied with their need for self-actualization which was the third most important perceived need and the need for autonomy as they are not given the opportunity to participate in the determination of methods and procedures and their jobs did not give them the feeling of self-fulfillment. This findings support the earlier findings by Porter (1962), Rhinehart et al., (1969) and Root and Tosi (1973).

The relationship between satisfaction towards salary and overall job satisfaction may be due to the fact that salary can eliminate job dissatisfaction and it can be a motivating factor if salary increment is linked with performance track record. This is in line with the opinion of Herzberg et al.(1959). In the Bank, salary scales are fixed according to the job grades and also terms and conditions specified in the collective agreement negotiated between the Bank's management and the employees' union every three years. Employees will normally get fixed annual increment whether they are performing or not. Even the bonuses component declared every year are dependent on the Bank's financial performance. This may perhaps explained why 35% of the employees are not satisfied towards their salary and the employees were most dissatisfied with the need for salary. This finding is consistent with the findings of Porter (1961) that salary is one of the most difficult aspects of employees' needs to be satisfied by employers. Since salary is the second most important perceived need identified in this study, the Bank is currently introducing a performance based salary system based on the respective Key Performance Index (KPIs) for various job grades.

The relationship between promotion opportunities and overall job satisfaction has the highest partial correlation. However, about 35% of the Bank's employees are not satisfied with promotion opportunities in the Bank and only 28% are very satisfied with it. This showed that promotion opportunities are limited in the Bank and it cannot satisfy those employees who have needs for advancement and self-improvement. Promotions are normally based on seniority rather than performance and it will normally take 3-5 years before an employee will be recommended for further promotion. This is line with the research findings of Patchens (1960) that individuals who are not promoted but feel that they are qualified for promotion, will experience job dissatisfaction, leading to deterioration in the individual's and organization's productivity. The importance of promotion opportunities may be due to the higher order needs of employees such as the need for achievement and self-esteem which are important to satisfy employees especially when their lower order needs have been satisfied (Maslow, 1954).

Meanwhile, the supervision aspect is the second most important facet of job satisfaction and the Bank should ensure that all employees are properly supervised in their work as highlighted by Locke (1976) and Vroom (1964). Effective supervision by supervisors is of paramount importance for bank employees as the banking industry is a highly regulated industry governed by the respective banks' standard practice of instructions, the Banking and Financial Institutions Act (BAFIA) and others. Last but not least, satisfaction towards co-workers is also an important determinant of job satisfaction and the employees are most satisfied with their social needs.

There is significant differences in the mean scores of satisfaction towards the nature of work between employees of different age groups. Hence, age is an important determinant of satisfaction towards the nature of work.

The findings contrasted with the findings of Kong, Chye, and Hian (1993) who reported several studies that there is positive linear relationship between age and job satisfaction. This may be due to the non-linear relationship between age and job satisfaction which was discovered by Luthans and Thomas (1989) who found curvilinear

relationship between age and job satisfaction. However, the findings of this study are consistent with the findings of Kong et al.(1993) and Lee and Wilbur (1985) that older employees are more satisfied than younger employees. This may be explained by the fact that younger employees who are more inexperienced are assigned more routine and simple jobs compared to senior employees who are more experienced and assigned non-routine jobs, engaged in complex decision making and undertaking challenging analysis. Kacmar and Ferris(1989) and Zeitz (1990) also reported that the U curvilinear is the most appropriate relationship between age and satisfaction towards salary, promotion opportunities, supervision and co-workers and the inconsistencies of past studies suggest that there are other factors such as length of service, educational level and salary which may influence the relationship between age and job satisfaction.

It is important to note that there is relationship between age and satisfaction towards the nature of work whereby older employees will be more satisfied than younger employees. This suggest that the senior employees perceive their job as more enjoyable, non-routine, interesting, creative, respectful, more challenging and satisfy the need for achievement. However, when other aspects of job satisfaction such as salary, promotion opportunities, supervision and co-workers are taken into account, the main effect of age towards overall job satisfaction becomes not significant.

There is also no significant relationship between gender and job satisfaction. This findings contrasted with the findings of Sauser and York (1978) who found significant differences of satisfaction towards promotion opportunities and the nature of work whereby men are more satisfied than women employees. However, the findings of this study are consistent with the findings of Herzberg et al.(1959) that there is no consistent conclusion of differences in job satisfaction between men and women employees and Hulin and Smith (1967) that gender is not an important factor influencing job satisfaction compared with other factors which change along with gender such as salary, job category, promotion opportunities, values of the society etc. There is also no significant relationship between job category and job satisfaction.

Other findings of this study is that there is no relationship between academic qualification and satisfaction towards salary which contrasted with the findings of Ronan and Organt (1973) and several other studies in the western literature that academic qualification has a weak positive relationship with satisfaction towards salary for all levels of employees. The implication is that the management of the Bank does not have to worry that its highly educated executives will be dissatisfied with their job.

Another important discovery of this study was that there is significant relationship between length of service and satisfaction towards the nature of work. This finding can be explained by referring to the report by Gruneberg (1979) who reported the work of Wild and Dawson (1972) that job satisfaction is related to both age and length of service and the longer the employee served the organization, the importance of factors such as self-esteem and nature of work will diminish while the importance of salary will increase. In this respect, the more senior employees will not pay attention to the nature of work when evaluating their satisfaction towards their job. However, they will emphasize the importance of salary and this is where the Bank's reward system which is often based on seniority will assist to satisfy the more senior employees. Meanwhile, when the effects of the other facets of job such as promotion opportunities, supervision and co-workers are taken into account, the effect of the length of service towards overall job satisfaction becomes not significant. The implication is that there are other factors such as the types of sampling units and types of satisfaction moderating the relationship between the length of service and job satisfaction.

There are also significant differences in the overall needs satisfaction, the need for autonomy and the need for self-actualization between the supervisory and clerical level of employees. The supervisory category which comprises the non-managerial level employees were less satisfied with the need for autonomy and the need for self-actualization compared to the clerical level employees. This may be explained by the fact that supervisors in the Bank are not given the opportunity to participate in the setting of goals as their job responsibilities and performance targets are set by the Management with little consultation/discussion with them. Moreover, the methods and procedures for work are determined by the management of the Bank and relevant Malaysian banking acts such as the Banking and Financial Institutions Act 1969 etc. As a result, the nature of work did not generate the feeling of worthwhile accomplishment needed to satisfied the need for self-actualization. The findings were not consistent with the findings of Porter (1961) and Porter and Mitchell (1967) that higher ranking employees tend to be more

satisfied with their higher order needs. However, both the supervisors and the clerical employees were dissatisfied with their higher order need for autonomy and need for self-actualization. This is due to the slow promotion process in the Bank that compared to the individual employee's performance.

## Conclusion

The study identified that the need for adequate salary and the need for self-actualization were important perceived needs for both supervisory and clerical level employees. However, these needs were regarded as the least fulfilled needs. Hence, the Bank needs to provide the opportunity for personal growth, the feeling of worthwhile accomplishment and performance and create pay for performance systems to promote the excellence driven culture in the Bank. Meanwhile, the Bank needs to be aware that the supervisors were generally less satisfied in all the employee needs' category compared to the clerical level employees. The Bank needs to create more opportunities for the supervisors to satisfy their need for social, self-esteem, autonomy, self-actualization and salary. Besides, their expectations of the perceived employment benefits must be managed to reflect the norm of the industry and the economy. It is important to satisfy the needs of the supervisors as they formed the majority of the workforce of the Bank and most of them are front liners delivering quality services to the ever demanding customers.

This study implies that the management of the Bank should be aware that the majority of its employees are only moderately satisfied and almost 36% of its employees are not satisfied towards promotion opportunities which is the most important aspect of the Cornell JDI influencing overall job satisfaction. In addition, the significant contribution of the five dimensions of job satisfaction in the Cornell JDI i.e., the nature of work, supervision, salary, promotion opportunities and co-workers have to been taken into account when designing effective human resource strategies in the future. This is important in view of the challenging Malaysian banking environment beyond 2007 when the full effects of financial liberalization is evident and the fact that motivated employees play important roles in creating and sustaining the resilience of the banking industry characterized by many challenges and opportunities in the new millennium.

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# Human Capital Development in a Complex Learning System: The Virtuous Interaction between Individuals, Organizations and Communities

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## Abstract

The aim of the paper is to find a framework for understanding dynamics of the learning process at different levels, occurring through different forms of education. The purpose is to consider the impact of formal, informal, non-formal learning on firms' performance. For sure R&D expenses and market are really important to foster innovation and drive firms towards better performances, but they need to take place in a learning oriented environment.

Our target of analysis are micro and small firms learning processes, which we look at using secondary data from different sources. The paper proceeds as follow. Firstly, the main aim of the work and research questions are presented, secondly, we focus on the relationships between human capital and innovation in SME. Thirdly, we illustrate what we mean for learning, paying particular attention to the differences between education and learning. Fourthly, we propose our interpretative framework, analysing in details its components.

## Introduction

The aim of this paper is to find a framework for understanding dynamics of the learning process (changes in the stock of owned knowledge), at different levels (individuals, organization, community), occurring through different forms of education. The purpose is to consider the impact of formal, informal, non-formal learning, as they are defined in the 2001 Communication from the Commission of the European Communities, on firms' performance. For sure R&D expenses and market are really important to foster innovation and drive firms towards better performances, but not only. The wide spread of innovation by large scale of adoption and redesign (best practices, meta-standard) in multiple context, in fact, is enormously relevant overall in Europe, where systems of SMEs are dominant (20.415.000 SMEs vs. 40.000 large firms in Europe<sup>1</sup>). It is in this environment that the virtuous paradox of European industrial experiences takes place. We look at the innovation process as an ecological process (Shrivastava 1998), where the focus is the relational ability of individuals and the high quality of human resources, building a dynamic bridge between individual learning, organizational learning and network learning, sustaining the creativity of individuals in general and human capital in the specific. Three main categories determine an ecology system to build up a shared value between different actors:

- a) Internal/external interdependences (multidimensional identity – individual and network)
- b) Compatibilities as standards sharing (communication);
- c) Connectivity (developing interactions towards the creation of a super-identity).

This multidimensional network of interdependences shape a peculiar ecosystem of both actors and network interactions, able to foster competition and cooperation on the basis of their specific competencies and inclinations towards a process of knowledge and value creation [23][31]. From this perspective, we relay mainly on the work of Morin [41] [42], who defines an ecosystem as a complex system of interactions characterized by two subsystems: an interactive system and the environment.<sup>2</sup> None of these subsystems plays a dominant role in the generation of the ecosystem. The ecosystem is the dynamic and emergent outcome of the combinatorial interaction between these two parts, that we could defines as a sort of *genetic* mechanism of emergent ecology. A generative integration between systems - or system of systems - and complex environment (material culture, traditions, habits and mental habits, intangibles or specific coupling of tangibles and intangibles and so forth, building a flexible bridge between local and global resources to enlarge learning capacities by varieties [3][45][23].

The paradigm of the knowledge economy (K-Economy) is definitely shifting to a new paradigm: the learning economy (L-Economy) [35][22]. The key factor of this new “Paradigm” is the power of generating knowledge by knowledge. Inputs of productive process are technology and knowledge, and outputs are technology and knowledge as well, deriving by learning capacity of the agents of the value chain. New needs of innovative networks in a new industrial space are:

- a) Connecting richness of learning organizations by interacting in evolutionary contexts (through tacit knowledge sharing) and developing absorptive capacity as acquisition of codified knowledge;
- b) Connecting networks of firms, new cores of infrastructure (ICT, ADSL, new media, etc.), R&D institutions, High Education institutions (University, Business, School, middle School, etc. ).
- c) Connecting identity value of firms and identity value of network oriented to renew and upgrade multiple levels of an identity core tree.
- d) Connecting private and public interests to the same channels for multiple values of sustainable overall growth of non-scarce resources by creating meta-organizer .

We assume the innovation process as an ecology process where human resource needs are:

- a) Continuing education as long-life mobility intra-firms and inter-firms, intra-industry and inter-industry up to trans-national education system for managers, technicians or specialists, etc.
- b) Developing Innovation Support Organizations preferably oriented to SMEs network for focalised filiere or industry, or Local Production Systems for new management skills as “network manager” or “district manager”;
- c) Enlarged application of benchmarking methods for diffusing best practices (as prospected for example in “European Trend Chart of Innovation” )

The paper addresses the crucial issue of the creation of new skills and the re-invention of learning processes in Italian industrial districts or local production systems, through an emergent intensification in the use and development of new customised information and communication technology supporting new learning organization. This evolution implies the availability of trained workers who can maximise the opportunity offered by new technologies as a basic support to diffuse learning *in action*, to reinforce mobility, flexibility, adaptability and innovation of knowledge local resources by coupling global ones.

## **From “Knowledge Economy” to “Learning Economy”**

The paradigm of the knowledge economy (K-Economy) is definitely shifting to a new paradigm: the learning economy (L-Economy) [22][35]. The competitive advantage of firms doesn't reside in the amount of owned “scarce” knowledge, but in their capability to learn. How do firms learn? Do they learn through their employees? What is the relative impact of formal and informal education on their learning capabilities? Is it a matter of cross-learning actions between individuals and organizations? What are the principal types of learning? Those are the questions that can be raised for facing competitive issues in a learning economy. Henceforward we will try to provide some answers after giving some definitions and useful specifications.

Education is prevalently oriented to programmed knowledge meanwhile learning needs both programmed and non-programmed knowledge (as we can define made by “structure and semi-structure knowledge”), for facing the complexity of a not stable (internal/external) organizational climate (see: environment). Learning presumes diffuse interactions and an orientation to a system creativity of firms, where the engine is connecting human agents' minds through relationships of organizations, probably sustained by technology interfaces communities: learning fuelling (micro/macro) ecosystem.

The process of interaction changes nature and structure of the environment, but structure and nature of the environment themselves shape the structure and nature of the interaction: we assist to a complex process of co-evolutive mechanism by interaction of the two semi-autonomous levels of artificial life. The main resource of this interaction between two levels (system and environment) is a communication normally mediated by technology as a distance communication among both persons and systems creating a new social “virtual” space. We are referring here to a space that differs from the traditional space of action or work, because agents are not isolated but become

active and creative parts of virtual communities. In a virtual community emotions, tastes and preferences create glue to reproduce relationships within four main leverages that operate towards an integrated ecology of value involving single and networked systems:

- a) Instant relationships,
- b) No sense of place or absence of space;
- c) Relevance of contents as emotional value;
- d) Competence passion as a sharing mission in a chain of learning games [23].

It is quite well known that traditional teaching/learning approaches of highly structured and polished lessons in pre-programmed classes suffer of flexibility shortage [39]. They are too much stuck into fixed scheduling, offering a standardised form of education, which often doesn't fit the real needs of individuals and firms (mostly SMEs). Education systems fail to foster self-motivated learning, and the attitudes of openness, curiosity and responsibility needed to live and prosper in a permanently changing world. As Shrivastava [55] underlines, carefully pre-packaged knowledge resources (such as books, articles, case study analyses) sometimes become obsolete even as they are under preparation. That is why new knowledge societies need *ad hoc* education systems, where the past static classrooms have to be plugged into permanent and continually updating knowledge instruments and networks. The classic hierarchical relation between teacher and learner is moving towards the building of a knowledge ecosystem, which can extend over the entire working life of the learner. The ambitious objective of a knowledge ecosystem is to create and maintain strategic human resources, capable of enhancing the competitive advantage of companies where they are employed, through different kinds of knowledge applications (such as lifelong learning). In a static world, in fact, learning is not so important, the accumulation of knowledge needed to perform reasonably well the tasks occurs during the first ages of human life, through formal education. In an uncertain world, instead, where changes are becoming day-by-day routine and the demand for flexibility is swelling, the need to learn increases. Training is necessary throughout life. If theoretically this assumption can meet an almost general agreement, practically it meets some difficulties, particularly in the case of SMEs. The limited available time of managers and employees is a relevant obstacle to the adoption of a lifelong learning point of view. New educational forms and channels are needed, possibly involving distance learning and multimedia techniques [19], pushing the diffusion of adult education, in an action learning perspective.

It appears as if Reg Revans [48] is the first to introduce the concept of action learning for describing a type of learning that comes from concrete experience and critical reflection on it, basically through group discussions that allow learning from each components experience<sup>3</sup>. Particularly interesting is his "equation for learning" [49] that is:  $L = P + Q$ . Learning (L) occurs through a combination of programmed knowledge (P) and the ability to ask insightful questions (Q).

We can see at this type of learning as a three (at least) dimensions process, which involves together different spheres of the worker life: individual, social and job-related one.

Considering the complexity of human interactions, we can speak about learning in action as an overlapping layers learning system, where the single worker assumes a central position. Learning and training authorities actually largely recognize this "learner centrality" point of view, all over the world, as we can infer by reading several ILO (International Labour Office) documents.

*"The individual is becoming the architect and builder responsible for developing his or her own skills, supported by public and enterprise investment in lifelong learning."*

With this exhaustive sentence the 2002 Report IV [27] of the ILO underlines the emergent role of the learner in the emergent knowledge society. It is clear that the focus of international policies is moving from traditional formal education to informal processes of learning, where workers are been encouraged to be innovative and creative, where they learn to learn, and not to absorb passively new knowledge. They become learning agents in dynamic communities of learning.

Denmark, for example, is pioneering a learner centred approach to vocational education and training by interaction. This attitude enforces the potentiality and the performances of its enterprises [53]. In the Report IV<sup>4</sup>, in fact, it appears that Danish enterprises that introduced process or production innovations combined with targeted training are more likely than non-innovators to report output growth (11% vs. 4%), job growth (3% vs. 2%) and labour productivity growth (10% vs. 4%). The difference existing between knowledge and learning is not always

clear, misunderstandings may occur. Following the definitions given by Gavigan et al. [24], knowledge substantially describes a state or potential for action and decision in a person, organisation or group. Learning, instead, is a dynamic process, which indicates permanent changes in the state of knowledge, often manifested by a change in understanding, decision or action. Knowledge mostly derives from a process where the amount of information achieved is mediated by a context and by human beliefs. Two kinds of information can be identified: un-probable and probable. According to the Information Theory [54], it is the un-probability that defines the high value and usefulness of information, because un-probable information is mostly embedded (in individuals or organizations) and, by definition, hard to unforeseen. On the contrary, probable information is easily to forecast and therefore has a scarce or null value. Learning capacity of individuals and organizations signs a deep gap between the two types of information. The first one (un-probable) emerges by new contexts of interactions, the second one (probable), instead, is normally codified and it is non-context specific (or inter-context). Emergent innovation contexts need both types of knowledge: codified and non-codified. That is why we need to facilitate an education process where both formal/codified and informal/non-codified knowledge can coexist and interact, by fostering, for instance, a circular reproduction of contexts that enable the generation of individual and organisation creativity.

In other words, learning can be seen as the capacity to integrate different types of knowledge (both tacit and explicit) in an industrial or business activity. From the age of the industrialisation to date, explicit types of knowledge and consequently stereotyped forms of learning have been the only ones under the attention of policy action. In the emerging post-industrial world, soft-tacit forms of knowledge and learning have come to dominate, allowing the growth of a knowledge-based economy, characterised by high levels of adaptability, flexibility and creativity at individual and collective level.

## Types of Learning

The scale of current economic and social change, the rapid transition to a knowledge-based society and demographic pressures resulting from an ageing population in Europe are all challenges which demand a new approach to education and training, within the framework of lifelong learning<sup>5</sup>. Lifelong learning, in fact, is often encapsulated in the idea of the lifelong development of human potential to empower the learner to adapt to continuously changing circumstances. It is therefore generally agreed that lifelong learning marks a paradigm shift away from an emphasis on the supply of education and training opportunities provided by systems and institutions towards a demand for actual acquisition of learning in many different settings reflecting changing needs over the lifetime of the individual. Many conceptualisations of lifelong learning promote a multi-faceted aetiology consisting of active citizenship, personal fulfilment, employability and social inclusion, and embrace learning at primary, secondary, tertiary as well as continuing levels.

In the 2001 Communication from the Commission of the European Communities, lifelong learning is defined as:

*“all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective”*.<sup>6</sup>

The breadth of this definition draws attention to the full range of formal, non-formal and informal learning activity. In next paragraphs we are going to explain the conceptual contents of these three categories, according to definitions given in the Communication.

- Formal learning
  - *“Learning typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner’s perspective.”*<sup>7</sup>
    - Formal learning mainly takes place in education and training institutions and are leading to recognized diplomas and qualifications
- Non-formal learning

- *“Learning that is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives...). Non formal learning is intentional from the learner’s perspective.”*<sup>8</sup>
  - Non-formal learning mainly takes place outside education systems at the workplace and through learning activities provided by stakeholders, institutions etc. within the civic society. Situated learning [32], and instructive learning [13] belong to this category. They, in fact, are in practice a kind of efficient transfer of tacit knowledge through apprenticeship.
- Informal learning
  - *“Learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or “incidental”/random).”*<sup>9</sup>
  - Informal learning is seen as the learning we experience through our daily life activities as human beings.

## **Locus of Learning (Providers of Education), Contents and Tools**

Learning oriented activities take place in different ways and following different channels. We distinguish among the locus of learning, i.e. the physical environment where knowledge is transferred and learning mechanisms are activated. Basically we identify three natural places: school, workplace and the Internet. As we can easily infer, each educational channel is characterised by a different type of audience, and shows both advantages and disadvantages, which we tried to summarise in the following.

### 1.1 Formal education → schooling

For formal education we mean the hierarchically structured, chronologically graded 'education system', running from primary school through the university and including, in addition to general academic studies, a variety of specialized programmes and institutions for full-time technical and professional training.

Among the advantages of this type of education:

- it provides a system of easily readable and comparable degrees;
- it guarantees an educational base where to build next specialization.

Among disadvantages:

- long-term and general;
- credential-based;
- contents are standardized and input centred;
- the delivery system is institution-based, isolated from environment, rigidly structured, teacher-centred and resource intensive;
- external / hierarchical control.

### 1.2 Training in line → workplace

Training in line includes every activities the enterprise develops for up-to-date the competencies of its employees. They can be shaped in the form of classroom lessons or conferences and seminars, as well as weekly/monthly meetings. This form of training is structured and is useful for the transfer of specific knowledge related to practical issues concerning the production system, as well as to technological issues concerning the enterprise communication and information system.

Advantages:

- possibility to deepen ad-hoc topics strictly related to firm core-activities;
- opportunity to create occasion of ideas exchange between employees employed at any level;
- reinforcing of the sense of belonging to the same work-community.

Disadvantages:

- very focused topics;
- scarce capacity to connect members outside the boundaries of the organisation.

### 1.3 On the job training → workplace

On the job training is an informal process of acquisition of professional skills, which is shaped through the direct observation (on the field) of the activities that a just-employed should carry out. By working next to an incumbent expert he has a great opportunity for absorbing gradually his/her competencies [18]. It's obviously a direct training tool (learning by doing), useful for transferring not only abilities and information, but also tacit behavioural codes, allowing a socialisation of competencies at an organisational level [43]. This form of learning can be assimilated to a kind of apprenticeship, where the temporal horizon is limited and declared, and the knowledge shared is mostly contextual.

Main advantages of the adoption of on the job training are:

- possibility to transfer knowledge (specific and tacit) regarding utilisation of specific production processes, which imply both the familiarisation with the technology and the specific behaviour typical of the productive context;
- orientation to workers employed at any level (from the lowest to the highest ones);
- increasing horizontal intra-firm mobility of workers and consequently elevate capacity to front complex problems related to interconnected areas of the company;
- quick and easy inclusion of young workers in the firm context and enforcement of the feeling of belonging to the new work community;
- perfect integration in the production activity, without breaking point.

Between the disadvantages we can consider:

- strong investment of the company in the process of training;
- subtraction of some of the most valid incumbent workers from their task during the on the job training activity;
- risk of replication of past best practices, in a static learning context, where a kind of path-dependency mechanism occurs.

### 1.4 Education on-line → society, community→ubiquification

Removing social, geographical, psychological barriers (by promoting, for instance, ICT) is a key point in the process of facilitating access to learning opportunities. Workplace learning and local learning centres are able to bring learning and learners together at times/paces and in places suited to other people's commitments. Education on-line is a technology-based category of training, which allows instructor and student being separated geographically. Main efficient vehicles for information exchange are multimedia tools, such as audio, video, and graphics. Both synchronous (real-time training) and asynchronous forms of interaction are possible. Anyway, the more is the reduction of temporal lag, the more we can assume the students can benefit from this educational form. Proximity advantages of instant feedback can be re-created in the virtual education environment, thanks to customised software for interactive individual and group communication (Internet Relay Chat (IRC), Multi-User Domain (MUD), and MUD-Object Oriented (MOO)). We are talking about a distance type of learning, which is build upon an interactive type of knowledge at the organisational level, and which can evolve towards a final empowerment of workers thanks to the benefit of the enlargement of the number and expertise of the learners involved. The shift from the organisational level to the community level implies a growing process of knowledge sharing from which individuals, organisation and society can benefit. ICT tools permit to go over the barriers of the single experience (both at the individual and at the organisational level), and to exploit a network effect, where the pluralities of actors and of their background joint together can be mutually empowered. Virtual communities of practices, as described by Wenger [58] are one of the means that can be surprisingly helpful for reaching the purpose.

Advantages in the implementation of distance learning for virtual office workers are basically:

- possibility to chose a convenient location for both student and instructor, reducing travel expenditures and wastes of time;
- availability of expert instructors independently from their geographic location;
- high interactivity due to the use of advanced communication technology, which allows also the shyest student to express doubts and solutions (it is well known how virtual interaction benefits from the sense of protection given by the web);
- global reduction of training costs, and consequently broader employee access.

Among disadvantages:

- absence of visual contact and connected difficulty to be concentrated, for the student, and to give equal attention to all the students, for the trainer;
- difficulties to adapt certain topics to the distance learning format;
- initial difficulty to feel the sense of belonging to the virtual learning-community;
- basic computer skills are a prerequisite for accessing this educational channel;
- infrastructure costs, related to the acquisition of computer equipment and communication services (specific software, fast connections and so on).

## The Pace of the Learning Activity: An Interpretative Framework

The number of the agents involved in the learning process determines the effectiveness of the knowledge transferred and created among networks of different sizes. **FIG. 1** shows the relationship between the two forces that regulate the learning process, geographical power (in terms of physical area covered), the relational power (in terms of number of agents involved) and the resultant force, fruit of their interplaying: the effectiveness (in terms of amount and quality of knowledge created and transferred) or knowledge intensity.

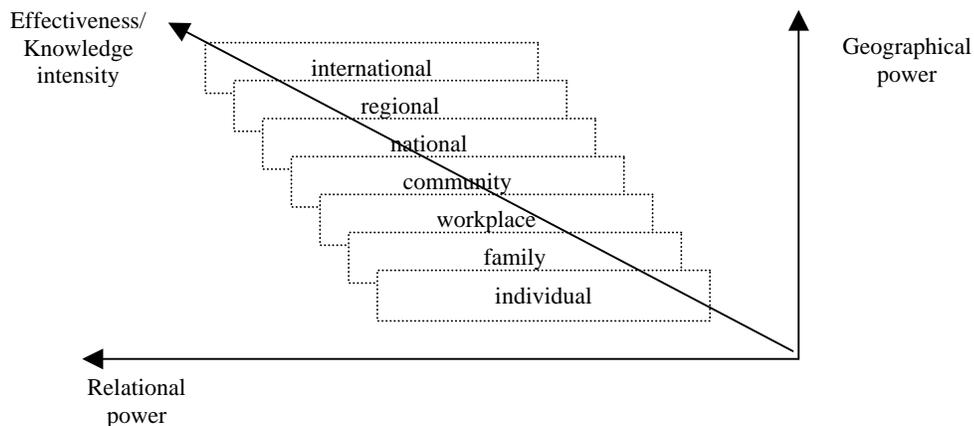


FIG. 1: SETTINGS OF LEARNING AND RELATED POWER.  
SOURCE: OUR ELABORATION

The potential agents involved in the educational process<sup>10</sup> can be grouped in three levels:

- The individual level orientates attention to the education and training of people;
- The organisational level refer to the co-operative and collective processes of knowledge generation, management and learning within organisations and between organisation in networks;
- The broader community or system level considers the overall coherence of individual and organisational knowledge and learning processes, plus the frameworks and incentives in place to further their development.

We propose firstly a tri-dimensional framework, where different types of education, from traditional (mono-directional and static) to technology-based (interactive and dynamic) ones, give life to plural types of learning, which involve the participation of different agents.

In **FIG. 2** there is a graphic representation of the framework. In x-axes we find the educational forms, in y-axes the learning types and in z-axes the agents involved. The best way to read the graph is to start from the x-axes, and individuate for each educational form what is the type of learning associated (y-axes). Finally, connecting the y-axes with the z-axes we can have an idea of the impact of informal, non-formal, formal learning on the agents involved in the process.

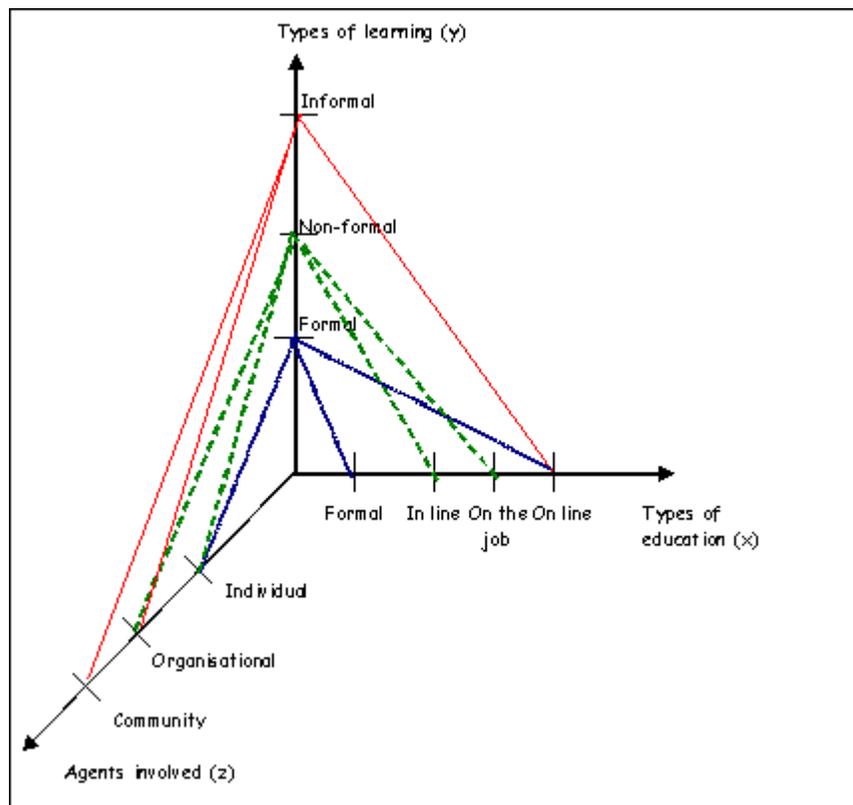


FIG. 2: THE FRAMEWORK (FIRST STEP).  
SOURCE: OUR ELABORATION

Let see what happens if we take in consideration the formal education: it implies a structured and standardised type of learning, which involves learners at an individual level. Scarce or null attention is given to interactions between the learner and the environment, in the shape, for instance, of sharing experiences with other learners or of meeting the local working demand. It's basically routed on an instructive process, where little room is reserved to follow and deepen individual proclivities, to foster personal involvement and to reinforce the engagement.

Looking at the in-line training, we shift to a non-formal learning, based on participation to internal courses or meetings, which are extremely focused in specific topics, which allow workers belonging to the same organisation engaging together a learning experience, even if the possibilities of mutual interaction are still low.

If we look at the on the job training, we assist to a non-formal learning process, which doesn't lead to a certification, which is deeply based on a strong peer-to-peer relationship between the individual and the organisation. The sphere of interest here is enlarged, the number of agents involved increases, and the goals of the training are in a way more reliable because they are declined on the basis of a company's needs.

Things completely change when we approach the on line education. Here, thanks to the availability of modern information and communication technology, able to connect distant location and to allow interactions between people both in an asynchronous and synchronous way, learning process evolve towards a formal plus informal model. We enter the domain of the virtual, which can be viewed as a place where employees meet together

and share their experience, but also a place where standard teachers and learners virtuously interact. The co-existence of the offer of pre-packed curricula, on one side, and high versatile sections firm-oriented or learner-oriented, on the other side, turns to be particularly useful to aid SMEs embracing new challenges (in terms of technological change, innovation adoption, network processes). In this case the standard becomes pushing flexible solutions that can broader involve a plurality of agents, stimulating learners' active participation and providing ad-hoc solutions.

By the way, this first framework can be extended including emergent issues in learning types and focusing on the nature of the knowledge exchanged by different channels (or education places). A representation of this enlarged framework can be found in FIG. 3.

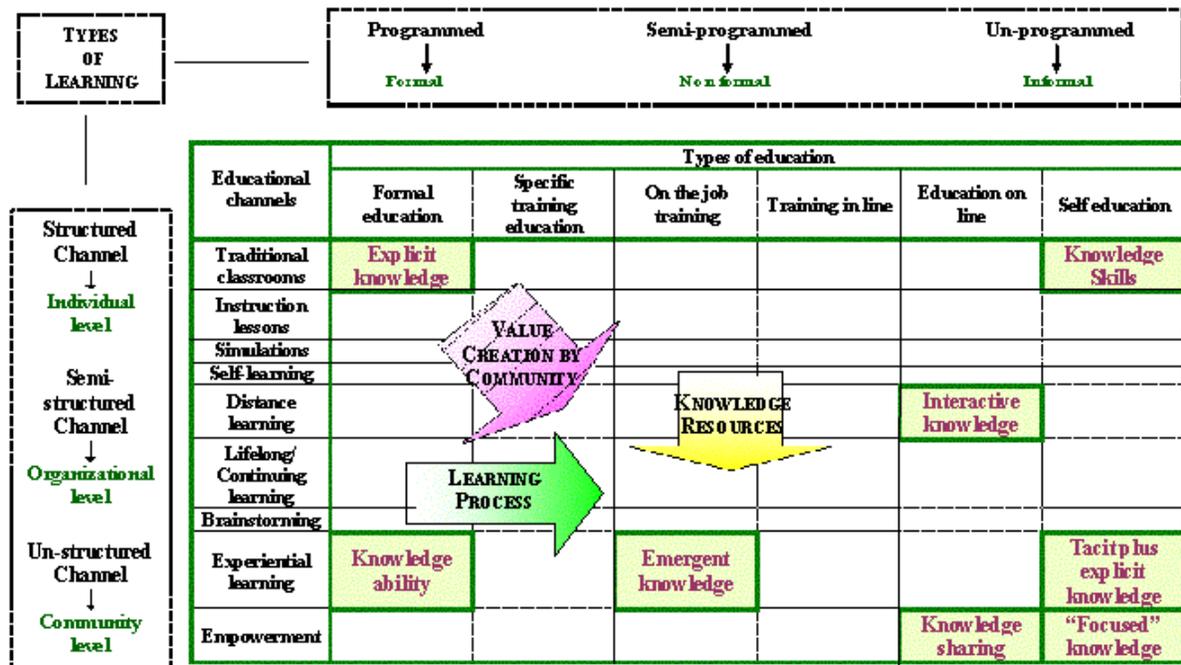


FIG. 3: THE FRAMEWORK (SECOND STEP).  
SOURCE: OUR ELABORATION

In the table presented in FIG. 3, out of the borders there are different types of learning with their main characteristics and their level of impact (on individuals, organisations, community), in columns there are educational forms, in rows there are educational channels. Matching together this information we are able to describe the complexity of the inter-relationships between the components of the learning system.

Here (FIG. 3) we can identify at least three strong forces that influences the dynamic of the education process:

- the learning process;
- the capability to create knowledge by community;
- the knowledge resources.

Moving from the left to the right of the table, learning appears to be more and more un-programmed, embracing the “informal” category, where explicit knowledge loses its weight and the tacit knowledge prevails.

Moving top-down we meet a type of learning un-structured, which is able to affect an enlarged number of actors and to build what can really be called a learning-ecosystem, based on knowledge sharing. Finally, if we follow the diagonal of the table, from the top-left corner to the bottom-right one, we can individuate a pattern where

value for the whole system is created. The knowledge transferred in this case is focused in terms both of the task and the user, it is the fruit of community interactions and it is mainly incorporated in individuals, as a mixture of tacit and codified knowledge (derived by formal learning and experience).

## Learning in SMEs and Local Production Systems

Spatial proximity has been elected by some scholars as one of the most important determinants for learning capability. They talk about economies of agglomeration, that is: net benefits of being in a location together with other firms increase with the number of firms in the location. Emblematic is the case of industrial districts, where non-market relations between firms, trust, conventions, cultural structures and non-codified knowledge are seen as factors of spatial binding, which promote innovation and entrepreneurship and help lowering transaction costs.

It is not the purpose of this work to recall all the types of local production systems, which sometimes take the shape of a cluster [47], sometimes of an industrial district [9], some others of a regional system of innovation [37]. The concept we want to take in account here as a reference one is the local development, which involves simultaneously local firms, institutions, social community, workers.

It is particularly relevant to give a careful look to the statistics concerning the pace of the training activities of SMEs, which dominate the economic Italian landscape. ISTAT collected in the second survey CVTS2 (Continuing Vocational Training Survey), performed in 1999, many useful information on the learning structure of SMEs and large firms by interviewing directly 2.665 large enterprises and mailing 11.000 firms with more than 10 employees. The situation of Italian enterprises can be compared at the international level with other countries (TABLE 1), revealing a clear time lag that imposes a penalty on Italian SMEs development and competitiveness.

TABLE 1: PERCENTAGE OF FIRMS THAT PERFORM TRAINING ACTIVITIES BY COUNTRY AND SIZE

Country	Total	10-49 employees	50-249 employees	>249 employees
Denmark	96	95	98	100
Netherlands	88	85	96	98
Ireland	79	75	98	100
Germany	75	71	86	98
Belgium	70	66	93	100
Spain	36	31	58	86
Italy	24	21	49	81
Portugal	22	17	46	78

SOURCE: ISTAT/EUROSTAT: CONTINUING VOCATIONAL TRAINING SURVEY - 1999

The characteristics of the Italian business structure, dominated by small firms that prevalently do not carry out any form of training activities pushes towards a serious reflection on type, time, and place where to organise the necessary employees update.

We propose to look not only at the single firm, but at the network of relations locally built and developed between public and private training institutions, trade associations and chambers of trade, organizations and individuals, in search for a useful training planning, organization and management (**FIG. 4**).

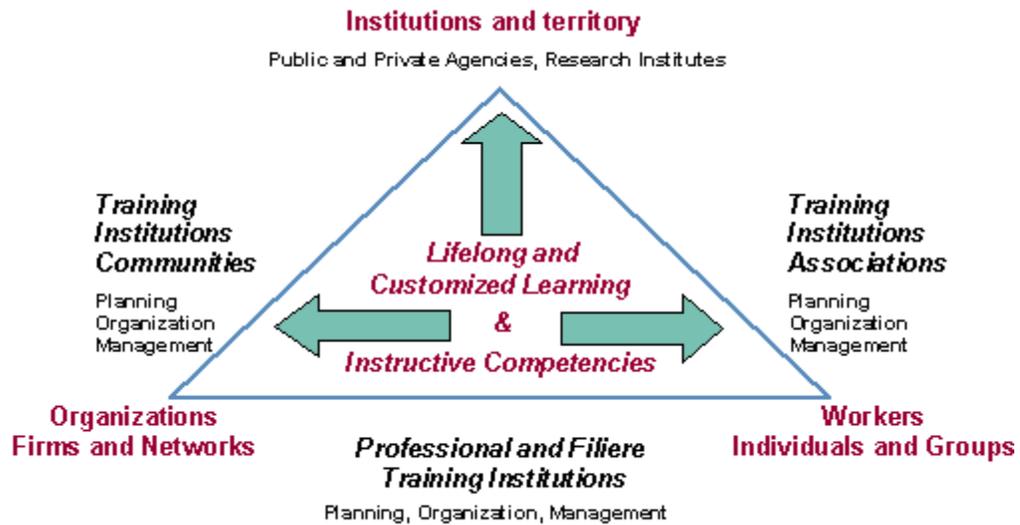


FIG. 4: THE TRAINING VALUE CHAIN.  
SOURCE: ALBERTINI AND PILOTTI [4]

Besides, we individuate in the territory the first and natural place where to share training investments, both between firms and workers. The specific local productive environment, with its social and work-based relationships, constitutes a powerful layer where to insert instructive initiatives, deploying the communication channels that already exist. We are referring to training activities that benefit not only the single individual or firm, but also the overall local production system, which is characterised by a lively local market for skill connected with a high level of inter-firm mobility. The existence of a district-specific and not firm-specific labour market is unluckily not linked to a local institutional engineering [14], able to plan customised training activities.

Despite the need of local learning policies [34][52], there is a lack of formal institutions (trade associations, service centres, universities, research institutes, chambers of trade) or informal institutional mechanisms developed between firms (inter-firm agreements, partnerships, communitarian rules).

A inter-firm and communitarian place, not completely public nor private (firm specific), should be created, where to access knowledge resources for labour force upgrading. We are talking about a new locus of learning, which is rooted on the social and economic relational tissue and whose benefit can be appropriated by all the agents of the local system, a meta-organiser operating at a meso-level, just between the macro (government) and the micro (firm) level. This new approach to the learning dynamics of local systems imply to shift the focus from a supply-push to a demand-pull model, where the instructive technology adapt to the specific needs of the system, to produce customised educational channels and contents, towards a context-specific instructive value chain.

The flexible model of production, which is typical of the local production systems, has to be coupled by an adequate learning structure, which is organised around the specific tasks to be performed.

Stemming from the assumption that learning is a social activity, and derives from social participation [32], we outline an environment that is marked out by the interplaying between different agents.

Under this vision, territory can't be no longer seen as a simple container of a lot of elements (such as morphologic, social, economic, political objects), but it must be seen as the locus of a fruitful interaction between them. ICT diffusion is one of the tools that can be exploited to create quick and deep linkages between all the stakeholders of what cannot be ever named a "territory", but which should be better defined as a "space system" (characterised by dominating governance) or an "ecology system" (characterised by interdependence governance).

One of the heaviest problem a SME is finding a way to meet effectively time to work and time to learn, that need to be viewed as different moments of a holistic process of growth. New tools from ICT (Information and

Communication Technology), which form the “knowledge local infrastructure”, could be very helpful in this field, allowing the creation of alternative educational channels, such as, for example, the distance education.

## Conclusions

The paper aimed to enlighten on the complex learning environment which is created by the interactions between different agents at different levels (individual, organization, community). Looking for an interpretative framework, we propose our view for a possible schematization of the places where learning occurs, the channels by which knowledge is transferred and the content of the knowledge transferred. We basically distinguish between schooling, workplace and on-line training. Our effort aims to produce a more policy-oriented contribution, able to overcome the limits given by the theoretical controversy developed around the attempt to establish the relative importance of tacit vs. codified knowledge and vice versa.

A particular attention is devoted to the analysis of learning activities occurring in local production systems, where the territory and its properties (physical, social, economic) play a fundamental role in planning training and instructive activities. The establishment or the individuation of instructive meta-organizers avoid to keep knowledge transfer and accumulation as an individual action.

The local production system behaves, in fact, as an ecology system, where the interactions among the agents and between the internal agents and the environment, constitute a natural field where to articulate modern education and training methods, that take in account of the pre-existent networks of relations.

We pinpoint the need to customise the training offer according to the specificity of the place and of the type of relations between firms, local institutions, labour market. Tools coming from ICT appear to be a good chance to realize an educational network that can be rather flexible in terms of time and space devoted to training activities.

Distance learning coupled with periodical encounters, such as fairs, meetings et al. could be a solution to the largely diffused attitude towards routines and mental models driven systems of running the business in micro and small firms.

The work is oriented towards the constitution of a complex learning system, which empowers itself thanks to the local relations and which takes advantage from the fruitful communication with global agents, in an evolving spiral of creation and conversion of both tacit and codified knowledge through new connected educational platform, generating a multiplicative effect of the learning efforts.

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## End Notes

<sup>1</sup> Source: Osservatorio Europeo 2002 sulle PMI.

<sup>2</sup> Lanzara and Morner [31], referring to the work of Bateson [8], apply a similar definition. The ecology of open source, according to their perspective, is an interactive system. Part of the "rules" that "govern" the interaction in the ecology are in-scripted in the coordination technologies that parties use to coordinate their work.

<sup>3</sup> Action learning can be associated, in a way, with the type of learning occurring inside Communities of Practices (CoPs) [59]. Here learning is viewed as a social process, where each member benefits from the interactions with

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other members, and where personal experiences and capabilities melt together with the experiences and capabilities of the whole community. Nevertheless, the main difference between the two types reside in the characteristics of the group (community, in the case of CoPs). CoP, in fact, constitutes a rather defined and fruitful environment, where to share knowledge and where to play action learning.

<sup>4</sup>Source: Danish Ministry of Business and Industry.

<sup>5</sup>At the national level, lifelong learning in Europe can be traced back to the 1970s where many countries, inspired by e.g.the UNESCO report on Learning to Be, paid substantial attention to ensuring lifelong education options based on humanistic concerns for their citizens by focusing on aspects linked to the "fulfilment of man".

<sup>6</sup>"Making a European Area of Lifelong Learning a Reality", Communication from the Commission of the European Communities, Brussels, 21.11.01

<sup>7</sup>See endnote 6

<sup>8</sup>See endnote 6

<sup>9</sup>See endnote 6

<sup>10</sup>The classification has been inspired by the considerations made by Gavigan et al.[24] in their Report on Knowledge and Learning prepared for the European Commission Directorate.

## Does Type A Behaviour at Work: A Taiwanese Case

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### Abstract

Bortner's Type A Behavior Questionnaires was used to explore the work behavior of Chinese managers and entrepreneurs in Taiwan and how that behavior was influenced by occupation, age and gender. 117 subjects participated in the study of which 45 were also interviewed. The mean score on the questionnaire was 74.68, the median (74) and the mode (76) within a scoring range of 0-140. 84 subjects registered scores of 80 or less (Type B behavior) and 33 came within the mid-range of 81-120. None of the subjects registered scores of 121-140 (Type A Behavior). The highest score of 113 was registered by a female bank vice-president and the lowest (47) by a male manager working in a charitable organization and about to retire. The results are discussed within the context of Chinese cultural traditional and parenting practices, the unique characteristics of Taiwan's recent history and the subjects' career experience.

### Introduction

It has become almost a commonplace to remark that we live in hectic times fraught with intractable pressure such as deadlines, role conflict and ambiguity, financial responsibilities, traffic congestion, noise and air pollution, family problems and work overload (Kreitner et al. 1999). Technological advancements make it harder for employees to disconnect completely from the office. Managers find that the dynamics of modern career life present them with real challenges in balancing the demands of work and non-work obligations. Studies of the impact of these pressures have also become common. Barley and Knight (1992) reported that the amount of published material on work and stress had doubled since 1980 and this rapid rise continues. More than two decades ago, Rosenman and Chesney (1982) argued that the modern work environment had stimulated competitiveness, aggression and hostility and created unique stressors not experienced by previous generations or non-industrialized societies. Cooper (1981) pointed out that managers are particularly vulnerable to these intensifying pressures and Cox and Cooper (1988), in a study of forty-five UK chief executives, commented on what they referred to as their 'frenetic' lifestyle. A major survey undertaken by the UK Institute of Management (1996) and involving almost 1100 managers showed that stress is common to all levels and types of manager with nearly 90% of the sample reporting adverse effects on their health, morale, work effectiveness and relationships.

Given the weighty responsibilities which managers are said typically to carry, often coupled with relentless time pressures and equally relentless pressure to deliver, it is reasonable to conjecture that these factors will carry significant implications for the way managers (and entrepreneurs) go about their work. However, studies of these implications to date have focused predominantly on managers in the West with a few exceptions such as the research of Siu et al (1999) comparing two managerial samples from Hong Kong and Taiwan. There is a paucity of studies of Chinese managers' work behaviour and particularly so as regards Taiwan.

Looking back over the last forty years, Taiwan has been gone through several stages of modernization and became one of the Asian Economic Tigers. The intention of the Taiwanese government has been to make the country a regional economic power by actively encouraging foreign direct investment, a policy which has spawned new managerial elite. Simultaneously, one of the Taiwan government's central economic policies has been to encourage the establishment of small and medium size businesses, the outcome of which has been the growth of a vibrant entrepreneur class. The success of the Taiwanese economy thus owes a great deal to its managers and entrepreneurs who have risen to the government's challenge through their strong work ethic, long hours and busy lives. On the face of it at least, Taiwanese managers and entrepreneurs are strong candidates for demonstrating the kind of behaviour denominated by Friedman et al. (1966) as Type A: behaviour characterized by aggression, impatience, time urgency and restlessness.

## Literature Review of Managerial Work Behaviour-Type A Behaviour

During the 1960s, Friedman and Rosenman made extensive studies of patients with coronary heart disease (CHD) (Rosenman et al. 1966). They found that these patients behaved similarly in many ways, being extremely competitive, high-achieving, aggressive, hostile, impatient and restless. They were also characterized by explosive speech patterns, tenseness of facial muscles and appeared to be under constant pressure of time. Friedman and Rosenman referred to these patients as having 'Type A' personality types as opposed to the more relaxed 'Type B' individuals who were 'completely free of all of the habits and exhibiting none of the traits of the Type A personality.' Type Bs, in contrast to Type As, have a low risk of coronary heart disease but Type A employees tend to be more productive than Type Bs. Kreitner et al. (1999) refer to three studies covering students, university professors and life assurance brokers, in each of which Type A Behaviour and performance showed a significant and positive correlation. But this high performance can bring with it negative consequences such as raised blood pressure and high cholesterol levels. Friedman and Rosenman contend that Type A Behaviour may not be due solely to personality attributes but rather that the cluster of particular behaviours as manifested by Type A Behaviour stems from the interaction of specific personality characteristics with the stressors of the environmental milieu (Rosenman, 1978). Cox and Cooper (1988) report a study of white-collar, middle class males in Buffalo, New York in which a link between high status jobs and Type A Behaviour was indicated. The men occupied a range of work settings including banking, healthcare, university academics and trade union officers. Type A Behaviour was found to relate to occupational status as measured by rank, level of occupational prestige and income. It was also significantly related to rapid career achievement as indicated by rank and income relative to age.

Chusmir and Hood (1986), examining the relationship between Type A Behaviour and motivation needs, argued that Type A individuals, both men and women, are characterized by high levels of job commitment, higher needs for power and achievement and a tendency to occupy high-ranking positions in profit-making organizations. They are also more prone to low job dissatisfaction and are younger compared to Type B subjects. Individuals identified as Type B are most characterized by reports of high job satisfaction, are older and work more often for non-profit making organizations than Type A subjects. Thoresen and Low (1991) and Moss et al. (1986) suggest that as age increases, Type A Behaviour decreases. Studies by Waldron et al. (1977) and by Davidson, Cooper and Chamberlain (1980) indicate that older professional women (over 60 years old) demonstrate virtually no Type A Behaviour. The reason for this may due to a sense of satisfaction and achievement with what life has brought. Byrne and Reinhart (1989) suggested that as individuals achieve their life goals, Type A Behaviours become less important. Greenglass (1991), in a study of female academics at a large Canadian university, found that those who were looking to be promoted to professor were more likely to display Type A Behaviour patterns. Type A scores also correlated positively with role-conflict: the higher the Type A, the higher the role conflict in areas involving work and family roles. Bedeian et al. (1990) examined the work exposure of accountants (men and women) and found that, on the whole, Type A correlated with the work experience of males but not of females. Job satisfaction and Type A status were only weakly related for males but highly related for the women in the study. The authors conjecture that this gender-based difference may be related to a relative ineffectiveness of males in managing such negative Type A characteristics as impatience, hostility and aggressiveness.

Cohen and Reed (1985) report on a cross-cultural study comparing Japanese and Caucasian men. The results of the study indicated that there was low prevalence of Type A Behaviour among the Japanese subjects (18.7% in comparison to 50% in the American white-collar male sample). The authors explained these findings in cultural terms: the Japanese culture encourages trust and cohesiveness at the expense of individual needs for achievement; similarly, it discourages the hard-driving and competitive behaviour which are reinforced by western cultures. In a study comparing managers in Hong Kong and Taiwan (men and women) for occupational stress, Siu et al. (1999) report little difference between the two samples. However in the Hong Kong group, Type A Behaviour was associated with strain symptoms: worse physical and mental well-being and higher absenteeism. In the Taiwan group, Type A Behaviour was only associated with worse physical well-being. The gender difference in Type A Behaviour was not significant in Hong Kong but in Taiwan, male managers indicated a higher tendency towards Type A Behaviour than their female counterparts.

## **Taiwan and Its Cultural Specific Characteristics**

Taiwan's economy before the 1960's was based primarily on low-skill labour-intensive industry such as assembly work and agricultural plantations. In 1949, when Chiang Kai Shek retreated to Taiwan, his one million followers brought with them much of the indigenous Chinese culture such as Confucian values and Mainland dialects, life styles and traditional religious practices. However, the Japanese who withdrew from Taiwan after their defeat in World War II left a legacy of their own culture and the Americans, who have aided and protected Taiwan since that time, have also left their mark.

From the-mid 1960s to the 1980s, Taiwan implemented a series of economic reforms which rapidly accelerated the country's economic growth and raised the people's living standard. Taipei is the capital city and has been developing fast over the past 30-40 years with a strong economic infrastructure whilst Taiwan, the second city gradually shifted to become an important commercial centre with a strong service base from its mainly industrial beginnings. Taiwan has also been the recipient of considerable foreign direct investment (FDI) during the process of its economic and social reforms and this has been accompanied by an influx of western business management values, ideas and practices. In other words, both of the country's major cities provide vibrant job markets and opportunities for individuals to enjoy high career mobility. Over the last ten years or so, the expansion of industries calling for high levels of technological know-how has raised the standard of managerial performance required in order to sustain continuing economic development. The determination of the Taiwanese government to make the country a regional economic power has had spectacular results. In addition to the government's determination to reform Taiwan's economy, other factors such as a strong Confucian work ethic engendering hard work and thrift (Westwood, 1992) may also be at work.

The economic transformation of the Asian Tigers, including Taiwan, within the space of a single generation has raised the question of whether there is something uniquely Asian at work here. Given the common Confucian heritage of these countries, is that something essentially bound up with Confucian values? Interestingly, Weber ([1926], 1964) took the view that Confucianism was anything but conducive to economic success. He argued that its emphasis on obedience to parental authority discouraged competition, risk-taking and innovation; in other words, it was hostile to capitalism. More recently however, commentators have focused on other aspects of Confucianism, explaining the success of the Tiger economies and China as well in terms of their encouragement of hard work, high rates of savings and investment, long-term vision and an emphasis on co-operation towards achieving shared goals. Not everyone is convinced about this explanation: for example, the celebration of Confucianism in South-East Asia has been said to spring from the central importance which it attaches to obedience, a feature which makes it attractive to authoritarian governments in the region (Naisbitt, 1997). Nevertheless, the debate about the nature and extent of the influence of Confucianism goes on and, to the extent that it has been deemed important in producing economic success, it seems a logical next step to me to enquire into how far elements within the Confucian work ethic are reflected in the behaviour of the managers and entrepreneurs who can reasonably claim much of the credit for delivering that success? Does hard work coupled with a strong desire to achieve manifest itself in the behaviour characteristics known as Type A? And are there any culture-specific factors operating in Taiwan which might additionally lead to Type A Behaviour patterns? In other words, is Type A Behaviour an inevitable outcome of leading a managerial and entrepreneurial career in present-day Taiwan? What role do Confucian values play in important decisions in the work and personal lives its managers and entrepreneurs?

## **Taiwanese Managers and Entrepreneurs and Type A Behaviour**

Research evidence has been presented above about links between the nature of managerial work, individual characteristics (age, gender, occupation, career aspirations etc) and Type A Behaviour. On the basis of this evidence, I conjectured that, in the context of present-day Taiwan with its own peculiar pressures on managers stemming from the voracious national appetite for economic growth, a high incidence of Type A Behaviour should be found among the subjects taking part in this study. Given also the links revealed by the research between Type A Behaviour and age, gender and occupation, I was also interested in exploring how far these factors were lead to significant in

influencing the work behaviour of the sample population. Research cited already in this paper, Byrne and Reinhart (1989), Thoresen and Low (1991), Moss et al. (1986) has demonstrated the effects of age on work behaviour and attitudes towards career achievement. Also, Greenglass (1991), Siu et al. (1999), Waldron et al. (1977), and Davidson et al. (1980) have shown how gender can have a differential impact on work behaviour. And turning to occupation, Rosenman et al. (1966), Cox and Cooper (1988), Chusmir and Hood (1986) and Kreitner et al. (1999) have produced findings which suggest that type of occupation, responsibilities and organizational ranking can all exert influence on work behaviour. But no research to date, as far as I am aware, has examined the variables of age, gender and occupation as they affect Type A Behaviour solely within the Taiwanese context. This led me to frame the following research question as the cornerstone of my research:

### **What are the Work Behaviour Characteristics of the Subjects (Using Type A as an Indicator)?**

It is contended that differences in scores on Type A Behaviour measures among the subjects according to age, gender and occupation represent prima facie evidence of the influence of these factors on the subjects' work behaviour. Three hypotheses were proposed relating to this research question:-

H1: Given the indicators from research that Type A Behaviour tends to decline with age, younger subjects taking part in the study are more likely than older subjects to exhibit Type A Behaviour.

H2: Given the indicators from research that Type A Behaviour is more associated with males than females, male subjects are more likely to exhibit Type A Behaviour than women subjects.

H3: Since the work of managers and entrepreneurs could be considered as equally demanding, there will be no differences between managers and entrepreneur subjects on Type A Behaviour.

### **Method and Research Techniques**

Two instruments were considered for gathering data to measure the managers' and entrepreneurs' behaviour. One was devised by Bortner (1969) consisting of 14 bipolar items (e.g. never late -casual about appointments, very competitive-never competitive). Bortner's questionnaire was derived from studies of coronary heart disease by Rosenman et al. (1966). The scoring range is 0-140. Scores of 121-140 are considered high (proneness to Type A Behaviour), scores of 81-120 average, and scores of 0-80 low (proneness to Type B behaviour) (Friedman and Rosenman, 1974). The questionnaire has been validated and is widely used (Robinson and Heller; 1980; Cox and Cooper, 1988; Thoresen and Low, 1991; Lam, 1996). The second instrument is the Jenkins Activity Survey (JAS) (1979) which consists of 52-items and is a modification of Bortner's instrument. (JAS) yields a total Type A score as well as a score for stress assessment which comprises three factors: a speed and impatience factor, a job involvement factor and a hard-driving and competitiveness factor. Bortner's was the preferred instrument for the present study as it is simple and clear as well as being easy to administer.

In order to enrich the data collected from the Type A Behaviour questionnaires, semi-structured interviews were carried out with 45 subjects to gain a deeper understanding of their perceptions of their career experience. An interview is a conversational exchange with the purpose of obtaining insight and knowledge by listening carefully and by questioning the interviewee and as such, it allowed the subjects to articulate and define their thoughts and feelings and what they perceived as important to them (Miles and Humberman, 1994; Wong and Slater, 2002). The subjects were also requested to complete a biographic data sheet indicating their age, gender, occupation and their work history. Its purpose was to provide background details to assist in analyzing the data collected from the Type A Behaviour questionnaires and interviews.

The Bortner Type A Behaviour questionnaires was first published in English but in this study, it was translated and administered in Chinese, the established convention of back-translation being used to verify that accuracy of meaning had not suffered through translation (Brislin, 1986). The semi-structured interviews were conducted in Chinese too. The reason for using Chinese was to ensure that the concepts were fully understood by the subjects. Although all of the interviewees were highly educated and spoke fairly good to fluent English, it seemed

wise to use Chinese as the medium for the study to ensure that there was no ambiguity in their understanding of some of the specific English terms used when translated into Chinese. A pilot study was carried out using a trial group of native Chinese speakers from Taiwan to ensure the acceptability of the Chinese version of the Type A Behaviour questionnaires. Discussion and revision meetings were also held on five occasions involving the same trial group to test the interview format and especially to ensure that it included appropriate words, tones, common expressions and phrases which are used colloquially in Taiwan. These discussions turned out to be very useful subsequently in enhancing the effectiveness of the interviews.

## Sampling and Data Collection

117 subjects were identified from Taipei and Taiwan. The reasons for choosing these two cities stem from their economic significance within Taiwan and their thriving managerial job markets, characteristics which I have previously referred to. In other words, they offered good potential for finding subjects who would meet the sample criteria. These were that they had to be ethnically Chinese, either born in Taiwan or living there for more than 20 years; aged 30 or above, university educated and in a managerial and or entrepreneurial role for at least 5 years.

The subjects taking part in the study turned out on average to have at least eight years working experience and at the time and were either employed as managers or self-employed as entrepreneurs. Some combined employment as managers with part-time entrepreneurial activities. Most of them had an MBA or were studying part-time for an MBA. Of the 117 subjects, there were 86 males and 31 females. Of the males, 54 were managers and 32 entrepreneurs (self-employed or in business partnerships). Of the females, 28 were managers and 3 entrepreneurs. In terms of age, there were 24 (20.5%) male subjects aged from 30-35, 19 (16.2%) from 36-40, 29 (24.8%) from 41-45, 7 (6%) from 46-50 and 7 (6%) above 50. Of the females, 18 (15.3%) subjects were aged from 30-35, 8 (6.8%) from 36-40 and 5 (4.4%) from 41-45. 84 subjects were married, 32 single and 1 divorced. 42 male subjects' wives were in full-time and 9 in part-time employment. 20 were full-time house-wives. Of the female subjects, 10 were married and one subject's husband was in part-time employment. 35 subjects did not indicate whether their spouses were in employment or not.

## Results

The mean score on the 117 validated Type A Behaviour questionnaires was 74.68, the median (74) and the mode (76) (Table 1). The highest score, 113 was registered by a female subject (a bank vice-president who was married and had two children) and the lowest (47) by a male (a manager working in a charitable organization and about to retire). Table (2) indicates that 84 subjects registered scores of 80 or less (Type B behaviour) and 33 came within the average range (81-120). None of the subjects registered scores of 121-140 (Type A Behaviour).

TABLE 1: DESCRIPTIVE STATISTICS-TYPE A BEHAVIOUR

N	Valid	117
	Missing	0
Mean		74.68
Median		74
Mode		76
Std. Deviation		11.7
Percentiles	25	66.5
	50	74
	75	82

TABLE 2: FREQUENCY TABLE OF TYPE A BEHAVIOUR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	47	1	0.90	0.90	0.90
	54	1	0.90	0.90	1.70
	55	1	0.90	0.90	2.60
	56	3	2.60	2.60	5.10
	57	1	0.90	0.90	6.00
	58	2	1.70	1.70	7.70
	59	2	1.70	1.70	9.40
	60	2	1.70	1.70	11.10
	61	1	0.90	0.90	12.00
	62	2	1.70	1.70	13.70
	63	6	5.10	5.10	18.80
	64	1	0.90	0.90	19.70
	65	2	1.70	1.70	21.40
	66	4	3.40	3.40	24.80
	67	2	1.70	1.70	26.50
	68	4	3.40	3.40	29.90
	69	4	3.40	3.40	33.30
	70	8	6.80	6.80	40.20
	71	3	2.60	2.60	42.70
	72	4	3.40	3.40	46.20
	73	1	0.90	0.90	47.00
	74	6	5.10	5.10	52.10
	75	2	1.70	1.70	53.80
	76	9	7.70	7.70	61.50
	77	3	2.60	2.60	64.10
	78	3	2.60	2.60	66.70
	79	4	3.40	3.40	70.10
	80	2	1.70	1.70	71.80
	81	3	2.60	2.60	74.40
	82	3	2.60	2.60	76.90
	83	2	1.70	1.70	78.60
	84	2	1.70	1.70	80.30
	85	1	0.90	0.90	81.20
86	1	0.90	0.90	82.10	
88	3	2.60	2.60	84.60	
89	4	3.40	3.40	88.00	
90	1	0.90	0.90	88.90	
91	2	1.70	1.70	90.60	
92	5	4.30	4.30	94.90	
93	2	1.70	1.70	96.60	

	95	1	0.90	0.90	97.40
	98	1	0.90	0.90	98.30
	108	1	0.90	0.90	99.10
	113	1	0.90	0.90	100.00
	Total	117	100.00	100.00	

Turning to the interview sample, 14 subjects registered scores within the average range, their mean age being 42. (Subject 8), (JS), aged 44 and (Subject 26), (AT), aged 38 both said that they would like to get on further in their careers but both also admitted that they found their current life patterns comfortable and that they had no specific plans as to their next career move; what enthusiasm they had for 'getting on' tended to come and go. (JS) was married with two young children and wanted to spend more time with them. Case (46) (LGL) liked the idea of advancing his career but not if it meant promotion to a job in Taipei which would require him to leave Taiwan where he was living close to his parents.

### Age and Type A

Table 3 indicates that of the five age groups into which the main sample was divided, the age group 50+ registers the lowest mean score (66.25) and the age group 41-45 the highest (78.34).

TABLE 3: COMPARE MEANS-TYPE A BEHAVIOUR BY AGE GROUP

AGE	Mean	N	Std. Deviation
30-35	73.38	42	11.27
36-40	74.48	25	11.48
41-45	78.34	35	11.59
46-50	74.43	7	7
50+	66.25	8	14.84
Total	74.68	117	11.7

### Gender and Type A

The Independent Samples Test (Table 4) indicates that the difference in mean scores between male (73.40) and female subjects (78.23) is significant (0.08).

TABLE 4: INDEPENDENT SAMPLES T TEST: TYPE A BEHAVIOUR BY GENDER

	SEX	N	Mean	Std. Deviation	Std. Error Mean					
TYPE A	1 Male	86	73.40	10.63	1.15					
	2 Female	31	78.23	13.82	2.48					
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	90% C.I.	
									Lower	Upper
TYPE A	Equal variances assumed	4.49	0.04	-2.00	115	0.05	-4.83	2.42	-8.84	-0.82
	Equal variances not assumed			-1.77	43.47	0.08	-4.83	2.73	-9.43	-0.23

Note: F – the F – statistic, Sig – level of significance, t – t-statistics, df- degree of freedom, C.I. – confidence interval of the difference

### Occupation and Type A

The Independent Samples Test (Table 5) indicates that there was no significant difference (0.86) in the mean scores of managers and entrepreneurs

TABLE 5: INDEPENDENT SAMPLES T-TEST: TYPE A BEHAVIOUR BY OCCUPATION (MANGERS AND ENTREPRENEURS).

	You are manager/ entrepreneur	N	Mean	Std. Deviation	Std. Error Mean					
TYPE A	Manager	82	74.80	12.39	1.37					
	Entrepreneur	35	74.37	10.05	1.70					
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	90% C.I.	
									Lower	Upper
TYPE A	Equal variances assumed	1.79	0.18	0.18	115	0.86	0.43	2.37	-3.5	4.37
	Equal variances not assumed			0.20	78.55	0.84	0.43	2.18	-3.2	4.06

Note: F – the F – statistic, Sig – level of significance, t – t-statistics, df- degree of freedom, C.I. – confidence interval of the difference

## Discussion

The low to average Type A scores suggest that, despite the pressures stemming from rapid economic expansion in Taiwan, the subjects seemed to be well protected against its more unwelcome and health-endangering manifestations. The semi-structured interviews included that in their daily lives, they appeared to put a high value on work behaviours which avoided confrontation and conflict and on the maintenance of smooth relationships. If their behaviour on the surface seemed busy or even hectic, the subjects, according to their self-reporting, did not seem to suffer serious adverse consequences in terms of typical Type A Behaviour patterns.

Turning to Hypothesis 1, it was posited that the subjects' Type A Behaviour would decline with age based on research by Davidson et al. (1980), Moss et al. (1986), Thoresen and Low (1991) and others. This was not the case. Type A Behaviour actually increased with age, peaking within the age group 41-45 and only declining afterwards. Perhaps the pattern here reflects increasing work responsibilities as the subjects age up to a point where at around 45, the subjects take stock and determine to take things more easily. Hypothesis 1 is supported only to the extent that it applies to subjects aged 46+.

Hypothesis 2 was based on research evidence which suggests that Type A Behaviour is associated more with males than females. It was posited that the men taking part in the study would score higher than the women. This also turned out not to be the case in that the difference in mean scores was significant with women scoring higher than men. The interview program might shed useful light here. Several female subjects drew attention to the tensions which they experienced as a result of the conflicting roles of wife, daughter, mother and career woman. There is the intriguing possibility that the Type A Behaviour questionnaire in this case was measuring not so much work behaviour as role conflict. Hypothesis 2 is rejected.

Hypothesis 3 proposed that there would be no difference in the mean scores of managers and entrepreneurs subjects given that there is no research (as far as I am aware) to suggest that work behaviour, as measured by Type A, differs between these two occupational categories. Indeed, the data revealed no significant difference, so Hypothesis 3 is supported.

The research question 'What are the work behaviour characteristics of the subjects?' was based on the premise that, given the apparently frenetic pace of business activity in Taiwan stemming from its recent rapid pace of economic growth, the work behaviour of the subjects would exhibit strong evidence of the Type A pattern. This turned out not to be the case with 72% of the main sample falling into the Type B Behaviour pattern and the remainder into the average range. Whatever the factors which lie behind the subjects' career success, they do not appear to include the typical Type A Behaviour such as an insatiable desire to compete, to adopt an adversarial approach to relationships or to treat time as if it were an enemy.

Two subjects, Subject 8 (JS) referred to above and Subject 26 (AT) seemed to exemplify the attitudes of the 45 subjects who were interviewed in expressing a desire to strike a proper balance between the competing claims of work and non-work activities. Analysis of the biographic data sheets reflects this. 94 subjects (80%) said that they gained support from their families in pursuing their work and 91 subjects (78%) indicated that they tried to keep their work and home lives separate. The participants in the interview program frequently referred to their family and home as a haven from the pressures and deadlines that they had to grapple with daily in the workplace. Cohen, Syme, Jenkins, Dagan and Zyzanski (1970) and Cohen and Reed (1985) contend that national cultural characteristics might be an important factor affecting the incidence of Type A Behaviour. Could it be therefore be that cultural characteristics are at work here? Westwood (1992) and Wong and Slater (2001) found in many Chinese communities, the extended Chinese family provided a stronger bulwark against the pressures of the workplace than the nuclear family, more typical of western societies. Perhaps it is also worth noting that almost all the subjects had completed an MBA degree. That need to balance the commitments of working and studying successfully might have filtered out the Type As.

Although the Type A data reveals differences in mean scores by age and gender (but not by occupation), I take the view that those variances pose questions which are far less critical than the question of why scores overall are as low as they are. Some conjecturing on this has been made in the previous paragraph but conjecturing is no valid substitute for systematic research. A promising avenue for further research might lie in a comparative study in

which Taiwanese managers are matched with managerial samples from other Chinese (and non-Chinese) communities. The relationship between work behaviour and career experience also merits a more rigorous exploration than I was able to give within the constraints of the present study.

## Limitations of the Present Study and Indications for Future Research

The Bortner questionnaire was the instrument used in this study for measuring work behaviour. The justification I gave for using this questionnaire rather than alternatives was that it is 'simple and clear and as well as being easy to administer'. Practical considerations weighed heavily here: the Bortner questionnaire presented few translation difficulties and there was concern on my part about the burden being imposed on the subjects' time given that they had also been asked to complete a biographical data sheet and 45 of the subjects had also accepted the invitation to take part in the interview program. But practical considerations aside, the questionnaire is well validated and widely used in developmental settings.

However, my reservations about the Type A Behaviour questionnaire, having gained experience of using it in this research, relate first to the question of what was measured. Did it measure work behaviour or did it measure behaviour generally? This is not to imply that there is always a clear-cut distinction: but the question is important if only because a number of subjects in the interview sample pointed out a contrast between their extremely busy lives at work and the relaxed tranquillity of the home and family environment. A second reservation relates to whether Type A Behaviour should be considered healthy and Type B Behaviour unhealthy. Friedman and Rosenman (1974) distinguish between good (adaptive) and bad (maladaptive) Type A and B types. Thus, some Type A types, they suggest are talkative, in control and charismatic while others are tense, hostile and competitive; some B types are relaxed and quiet while others are over- controlled inhibitors. Chinese parenting practices are strong on control of children's behaviour. Wu (1996) and Ho (1996) commenting on Chinese child-rearing note that Chinese parents teach their children by their example not to indulge in horseplay, argue, quarrel, joke, slouch, speak in a vulgar manner, upset their parents and to obey without question. There is an intriguing possibility that the low Type B scores obtained in the present study might in part be a reflection of maladaptive Type B Behaviour: inhibition instilled in childhood finding expression in adulthood. Further research is needed.

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# Human Resource Management Challenges in Times of Global Change and Uncertainty

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## Abstract

Human resource management is at a crossroad in its evolution. It has developed highly efficient programs, practices, and policies to serve industrial organizations of the 20<sup>th</sup> century, *specifically, the dynamic global labor market*. However, the demands of the 21<sup>st</sup> century knowledge economy present a new imperative for HRM more than an efficient employment bureaucracy bequeathed to us by the Industrial Revolution and management *giants* like Taylor, Weber, Fayol, and Mayo, et al. To become a viable contributor to organizations in the new economy, HRM must undergo self-examination and redirection. It must reinvent itself to preempt being consigned in the dustbin of obsolescence. It will require a *paradigm shift* or a new focus: 1) on building strategic capability; 2) on expanding the boundaries of HRM to include the entire value chain; and 3) on managing new roles – roles that contribute directly to the creation of organizational capabilities. Indeed, the challenges posed by the knowledge economy are formidable (Lengnick-Hall and Lengnick-Hall, 2003), let alone in its complexity. And yet the microchip era owes its existence from a simple, uncomplicated but ubiquitous office gadget, a bent paper clip!

## Introduction/Overview

The ubiquitous *paper clip*, commonly used in a typical human resource office (or any office for that matter), symbolizes quite anachronistically, the Industrial Revolution, in this age of digital revolution otherwise known also as the knowledge economy (courtesy of Peter Drucker, a world-renown management guru, and Fritz Machlup of Princeton University). In fact, the assembly line of the Industrial Revolution gave birth to the ubiquitous paper clip. Grab any book on human resource management, and you will find out that HRM has its roots from the Industrial Revolution (late 1800s to early 1900s). A montage symbolizing the Industrial Revolution, would include, other than the assembly line, the steam engine of James Watt, electricity, and some ideas in various fields whose currency has not been diminished by the ravages of time, such as, mass production, economies of scale, division of labor, the capitalism of Adam Smith, the comparative advantage of David Ricardo, and the socialism of Karl Marx. History, according to Andrew Steven Grove, CEO of Intel, has its “strategic inflection points”, which can cause global change and uncertainty, those moments when new circumstances alter the way the world works, as if the current of history goes through a transistor and our oscilloscopes blip. Such inflection points may be a *process*, like the assembly line of the Industrial Revolution; or an *invention* like the Gutenberg’s printing press of the 15<sup>th</sup> century; or an *idea* like the yearning for individual liberty during the 18<sup>th</sup> century, or a *technology* like electricity in the 19<sup>th</sup> century (“Man of the Year”, *Time*, Annual 1997 The Year in Review: p75).

Is there a connection between the paper clip and microchip? The development of HRM is similar to the metamorphosis of the paper clip to a microchip. The very first microchip, invented by the two scientists from Bell Laboratories in New Jersey on December 23 1947, the dynamo of the digital revolution or the knowledge economy (of the 21<sup>st</sup> century) made use of “...*some strips of gold foil, a chip of semiconducting material and a bent paper clip*” (“Man of the Year”, *Time* Annual 1997 The Year in Review:74). An ordinary paper clip can only hold about 3 to 5 pieces of paper; a Pentium II microchip is capable of processing 500,000,000 bits of information per second (Pentium IV, 1600 megahertz, has a much bigger capacity). By extrapolation, while the paper clip age has painted an exciting art and science of human resource management apropos to the past century just ended, expect no less that the microchip era of the 21<sup>st</sup> century would evolve a much more exciting HRM tapestry, vis a vis the *challenges in times of global change and uncertainty*, i.e., an HRM initiative going beyond the traditional box of managing people, but more than that --- *managing the human capital or the capabilities that people create and the relationships that people must develop*.

### **HRM, Defined**

Basically, human resource management (HRM) is the effective management of people at work, according to textbook definition. HRM examines what can or should be done to make working people more productive and satisfied (Ivancevich, 2004). It deals with the professional treatment and concern for people within the organization, its most important asset, to optimize their performance, bearing in mind the notion that to grow, prosper, and remain healthy, the organization must optimize the return on investment of all resources – physical, financial, and human. HRM is the function performed in organizations that facilitates the most effective use of people (employees) to achieve organizational and individual goals. Terms such as *personnel*, *human resource management*, *industrial relations*, and *employee development* are used to describe this unit, section or department within the organization. Currently, however, the term human resource management is widely used globally, although some people still refer to it as the personnel department. HRM is more reflective of the increased concern, respect, and recognition both society and organizations have for people.

### **Typical HRM**

A typical HRM “box” consists of numerous activities, such as --- 1) job analysis, 2) human resource planning, 3) employee recruitment, selection, motivation and orientation, 4) performance evaluation, compensation and benefits administration, 5) training and development, 6) labor relations, 7) safety, health, and wellness, and 8) community relations, otherwise known today as “corporate social responsibility”. Depending upon the nature, size, and structural complexity of the organization, the emphasis or focus on the aforementioned activities would vary. In companies for example with complex products like in a pharmaceutical company, training and development function is a high profile position, a knot or two higher than simple housekeeping functions such as wage and benefit administration or canteen supervision.

Under the paper clip milieu, with imprints of Taylor and Gantt, Weber, Fayol, et. al, this old HRM box has worked to the satisfaction of management with some modifications here and there (but modifications all within the context of the “rational man” theory, pointed towards efficiency and productivity of the assembly line, and serving well the self-interest of business). The “social man” theory embraced by the human relations theorists and behavioral scientists, espoused by Elton Mayo, et al., Maslow and company, have gained popularity in the later part of the 20<sup>th</sup> century up to the present digital age, but remains to be clothed under a heavy cloud of suspicion from the global community at large, fueled by the clamor for transparent corporate governance, corporate social responsibility, and rising education and vigilance of all stakeholders, specially the NGOs.

*Under the microchip milieu, most of the functions in the old box are either outsourced, digitalized, or shared by other departments within the organization; hence, there may be a need to think outside of the old box, or better still create an entirely new box?* But this may be easier said than done. A simple case in point is the name of the biggest aggrupation of HRM practitioners in the country, called the Personnel Management Association of the Philippines (PMAP); the association could not seem to discard its old name which is very clearly an anachronism!

### **Current HRM Thoughts, New Imperative**

The influence of behavioral science (e.g., the work of Elton Mayo, et al., the *Hawthorne Studies*) and the rapid changes in the macro-environment of the organization, e.g., globalization, technology, the economy, legal considerations, social and political changes, and the phenomenal growth of stakeholders’ vigilance, vis a vis the compelling challenge of sustainability, have resulted in a *humanistic orientation* of today’s HRM; a stark contrast to the *Weberian* tradition (the three Es of bureaucracy – effectiveness, efficiency, and economy) and the management science of Frederick Taylor and his associate, Henry Gantt, et al. The traditional housekeeping functions of the “old” personnel office, such as hiring, wage and benefits administration, and keeping of the 201-file in a steel-cabinet are still being performed. However, the portfolio has been expanded to include such strategic functions as career planning, training and development, organizational development (OD), and corporate social responsibility (CSR) functions, hence, the “qualitative leap into human resource management” (Sison, 1991: 2).

Today’s HRM is doing a strategic function relative to the achievement of organizational objectives and enhancement of employees’ development and satisfaction. Some contemporary HRM thoughts are, as follows:

1) It is action-oriented. Effective HRM focuses on action rather than on record-keeping, written procedure, or rules. Certainly, HRM uses rules, records, and policies, but it stresses action. HRM emphasizes the solution of employment problems to help achieve individual and organizational objectives.

- 2) It is people-oriented. HRM treats each employee as a human being, not as a tool of production, and offers services and programs to meet the individual's needs.
- 3) It is globally oriented. HRM is a globally oriented function or activity; it is being practiced efficiently and continuously in many organizations around the world, where employees are treated fairly, with respect, and with sensitivity, within the ambit of the Universal human rights declaration.
- 4) It is future-oriented. Effective HRM is concerned with helping an organization achieve its objectives in the future by providing for competent, well-motivated employees.

Lengnick-Hall and Lengnick-Hall (2003) have a more forward-looking view of HRM for the 21<sup>st</sup> century *knowledge economy* (please see Appendix B); for them, HRM is no longer simply focused on “managing people” in the conventional meaning of the phrase (e.g., staffing, training and development, performance management, and so on). Human resource management is now responsible for managing the capabilities that people create and relationships that people must develop. In Michael Porter's value chain analysis (please see Appendix A), the sustainable competitive advantage of an organization emanates from the combined talents, skills, and competencies of its human resources, otherwise known as the human capital.

#### **A Brief History**

To better appreciate this new imperative on human capital management, a review of history is in order. The history of HRM may be said to have its roots from --- 1) the Medieval guilds in Europe, which saw the beginning of employer-employee relations as these are known today (e.g., the merchants guilds composed of storekeepers, merchants; the craft guilds composed of masters, journeymen, and apprentices engaged in shoemaking, weaving, baking and similar trades, they used their unity to improve their work conditions); and 2) the Industrial Revolution in the latter part of the 19th and early 20th centuries which laid the basis for a new and complex industrial society (e.g., the introduction of the factory system of production). The radical changes brought about by the Industrial Revolution in terms of production and distribution created far-reaching effects on social organization (which saw the evolution of the middle class), economic relationships, and political philosophy.

At first, labor was regarded as a mere commodity that could be acquired or disposed of like any other chattel or property governed by the law of supply and demand. When machines were invented, the workers employed to operate them were considered parts of these machines; hence the idea arose that labor was a machine, an operating organism capable of a certain amount of output, as in the *time and motion* study of Taylor and Gantt.

#### **The Industrial Revolution**

In the transition from agricultural to industrial phase of the economy, a growing population looking for work in cities, coupled with abundant natural resources such as coal, iron, and water power, helped to ignite the Industrial Revolution in Great Britain, which eventually spread throughout the world. Its other preconditions are the advances in science and technology, incentive, and money capital to build machines; a labor force to run them; raw materials and markets to make the system profitable; and efficient farms to feed a new group of workers. At the start of the 1700s Great Britain possessed all these requirements. It is where industrialism first took root. Power-driven machinery took the place of handwork done in the home. As industry came to dominate economies, inventors developed technology for industrialists to increase and speed production. Expanding and increasingly complex industries led to a changing social order in the mid-1800s. As factory owners and managers prospered, a sizeable middle class grew. Many workers, however, endured crowded and unsanitary living quarters and poor working conditions. In the late 1800s some workers joined to form labor unions in the hope of improving their lives (Farah and Karls, 1999).

In simple terms, the Industrial Revolution saw the substitution of machines for time-consuming hand labor. It virtually transferred the skills of guild's craftsmen and journeymen to the machines. In contrast to the preceding era where economic power emanates from ownership of land, during the Industrial Revolution, economic power comes from ownership of machines; working conditions, social patterns, and the division of labor were significantly altered. A new kind of employee – a boss, who wasn't necessarily the owner, as had usually been the case in the past – became a power broker in the new factory system. With these changes also came a widening gap between workers and owners.

The establishment of factories led to the migration of workers from rural to urban areas and the concentration of workers around the factory sites, thereby giving rise to problems in psychological and social

relationships, and more industrial relations problems. By grouping workers together in large numbers and standardizing methods of production and distribution, management was able to cut down production costs radically and new markets were opened locally and overseas. In turn these expanded outlets necessitated the establishment of more factories, the increased production of goods, and the creation of new services. The resulting changes and development in the social, economic, and political structures of communities caused greater demands for new products and services.

The rise of industry changed the world forever; the way McDonald and Coke have changed people's behavior. So dramatic were the changes that historians have labeled the period the Industrial Revolution. Although the revolution began in Britain, it respected neither time nor place. The revolution traveled beyond Britain to touch every nation on earth.

#### **Adam Smith, David Ricardo and Karl Marx**

The Industrial Revolution saw the emergence of economists such as Adam Smith and David Ricardo who pointed out the basic principles of capitalism and held that businesses should operate without governmental interference. British philosopher John Stuart

Mill favored the concept of capitalism but called for government supervision and reforms to provide social justice. But the German philosopher Karl Marx opposed capitalism and supported socialism, believing that workers either by themselves or through the government should control industry.

#### **Darwin and Pasteur**

The Industrial Revolution also saw many exciting scientific advances. In the 1850s British naturalist Charles Darwin proposed a theory of evolution to explain the origins of life. About the same time, microbiologist, Louis Pasteur used new scientific knowledge to conquer diseases such as smallpox and rabies that had plagued humankind for thousands of years. Increased interest in education led to the spread of literacy as public schools and libraries were established throughout Europe and the United States.

## **Scientific Management**

The continuous search for ways to improve methods of production led Frederick Taylor (1856-1915) to spearhead the scientific management movement towards the beginning of the twentieth century. He is acknowledged as the "Father of Scientific Management".

Scientific management is a type of management, which is characterized and guided by the use of scientific approaches to the solution of managerial problems in business and industry. It aims to find out what particular management procedure is applicable in a given situation by conducting job analysis, determining what is to be accomplished and then designing the tools and methods to accomplish the task. Scientific management requires that both workers and management join in the search for the least waste in materials, working time, and efforts through systematic ordering of operations. In the final analysis, improvements in production could best be achieved through effective leadership by the supervisor and the manager.

Taylor's famous works are --- 1) a paper which he read before the American Society of Mechanical Engineers, entitled "A Piece Rate System"; and 2) his handbook on "Shop Management", published in 1903. This was the first attempt to apply cost analysis to jobs by splitting up a job into its constituent parts and determining the time required for each part. It also introduced job simplification programs aimed at greater productivity and the effective use of human resources and materials.

The principles of scientific management may be summarized as follows:

- 1) The application of science in the development of each job, thus replacing the old rule-of-thumb method;
- 2) The scientific selection, training, and development of workmen in order to achieve optimum efficiency;
- 3) Adequate compensation of the workman according to his accomplishment; and
- 4) The equitable division of work and responsibilities between management and workmen, giving to each man the functions for which he is best suited, and preserving his own individuality in the exercise of his initiative. In the past, the worker was given the responsibility to do certain jobs regardless of his qualifications and the requirements of the particular job.

Other advocates of the movement were Henry Gantt (the Father of the Gantt Chart), Frank and Lillian Gilbreth, (Stoner, et al., 1999).

Henry Gantt (1861-1919) worked with Taylor on several projects. An industrial engineer by profession, his Gantt Chart was translated into eight languages and used throughout the world. Starting in the 1920s, it was in use in Japan, Spain, and the Soviet Union. It also formed the basis for two charting devices which were developed to assist in planning, managing, and controlling complex organizations: the Critical Path Method (CPM), originated by Du Pont, and Program Evaluation and Review Technique (PERT), developed by the Navy. Lotus 1-2-3 is also a creative application of the Gantt Chart.

The Gilbreths. Frank B. and Lillian M. Gilbreth (1868-1924 and 1878-1972) made their contribution to the scientific management movement as a husband-and-wife team. Lillian and Frank collaborated on fatigue and motion studies and focused on ways of promoting the individual worker’s welfare. To them, the ultimate aim of scientific management was to help workers reach their full potential as human beings. Using motion picture cameras, they tried to find the most economical motions for each task in order to upgrade performance and reduce fatigue.

On the whole, the scientific management was concerned with increasing the productivity of the shop and the individual worker. The classical organization theory, which subsumes several schools of management thoughts (as shown in the table below), grew out of the need to find guidelines for managing such complex organizations as factories. Noted classical organization theorists are Henri Fayol (1841-1925) who pioneered in identifying the principles and skills that underlie effective management; and Max Weber (1864-1920), a German sociologist who developed a theory of bureaucratic management that stressed the need for a strictly defined hierarchy governed by clearly defined regulations and lines of authority. Before Fayol, it was generally believed that “managers are born, not made”. Fayol insisted, however, that management was a skill like any other – one that could be taught once its underlying principles were understood.

TABLE 1: KEY MANAGEMENT THEORIES, AN OVERVIEW  
(STONER, ET AL., 1999: 33)

1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
Labor Shortage		World War I (1914-1918)			World War II (1941-1945)		Protest Movement	IBM Apple	In search of Excellence	Baldrige Award
<i>Scientific Management School</i>						<i>Classical Organizational Theory School</i>				
			<i>The Human Relations Movement</i>							
						Management Science				
						The Systems Approach				
						The Contingency Approach				
						Dynamic Engagement Approach				

## Human Relations Movement

The scientific management movement was followed by another group of researchers led by Elton Mayo (1880-1949), and his Harvard associates, Fritz J. Roethlisberger and William J. Dickson, whose works in the famous Hawthorne Studies, also known as the Hawthorne Experiments, influenced management thinking along the lines of human relations. To managers’ frustration, people did not always follow predicted or expected patterns of behavior, as postulated by Weber, Fayol, et al. Thus, there was increased interest in helping managers deal more effectively with the “people side” of their organizations, with the insights of sociology and psychology. *De facto*, Elton Mayo

and the human relations theorists challenged the rationalist ideas put forward by Max Weber, who defined the bureaucratic form of government, and Frederick Taylor and Henri Fayol, who implied that management really can be made into an exact science. Weber virtually pooh-pooed charismatic leadership and doted on bureaucracy; its rule-driven, impersonal form, he said, was the only way to assure long-term survival. Taylor, of course, is the source of the time and motion approach to efficiency: if only you can divide work up into enough discrete, wholly programmed pieces and then put the pieces back together in a truly optimum way, why then you'll have a truly top-performing unit (Peters and Waterman, 1982).

Human relations is frequently used as a general term to describe the ways in which managers interact with their employees. When "employee management" stimulates more and better work, the organization has effective human relations; when morale and efficiency deteriorate, its human relations are said to be ineffective. The human relations movement arose from early *attempts to systematically discover the social and psychological factors that would create effective human relations*.

### **The Hawthorne Experiments**

The human relations movement grew out of a famous series of studies conducted at the Western Electric Company from 1924 to 1933. These eventually became known as the "Hawthorne Studies" because many of them were performed at Western Electric's Hawthorne plant near Chicago. The Hawthorne Studies began as an attempt to investigate the relationship between the level of lighting in the workplace and worker productivity – the type of question Frederick Taylor and his colleagues might well have addressed.

In the Hawthorne Experiments, researchers divided the employees into test groups, who were subjected to deliberate changes in lighting, and control groups whose lighting remained constant throughout the experiments. The results of the experiments were ambiguous. When the test group's lighting was improved, productivity tended to increase, although erratically. But when lighting conditions were made worse, there was also a tendency for productivity to increase in the test group. To compound the mystery, the control group's output also rose over the course of the studies, even though it experienced no changes in illumination. Obviously, something besides lighting was influencing the workers performance. When other variables were introduced and altered, the same ambiguous results came out. Some interesting conclusions from the Hawthorne Experiments are, as follows: 1) a complex chain of attitudes other than lighting (or elements of the physical environment) affects the productivity of people; 2) that it is *attention to employees*, not work conditions per se, that has the dominant impact on productivity; this phenomenon is otherwise known as the *Hawthorne effect*; 3) that informal work groups – the social environment of employees – have a positive influence on productivity; and 4) that the concept of "social man" - motivated by social needs, wanting rewarding on-the-job relationships, and responding more to work-group pressures than to management control – is necessary to complement the old concept of "rational man" motivated by personal economic or physiological needs.

From the Hawthorne Studies, the leaders of the movement stressed greater attention to sociological changes that affect the attitudes and productivity of the workers. Elton Mayo argued that since industrialization removed the personal contacts between management and the workers, it became the manager's responsibility to repair the said damage that specialization and mechanization of work had done. He believed that the loss of the face-to-face contact between management and the workers was the source of frustration and psychological deterioration in the work situation. To offset this, he felt that management should either permit the spontaneous formation of voluntary small groups or organize small groups to provide the kind of face-to-face association that was needed (Sison, 1991: 6).

Likewise, the human relations movement emphasized the need for active participation of subordinates in decision-making and for treating them with dignity as an important partner in the organization. A more permissive type of control under which subordinates were encouraged to express themselves freely, to make suggestions, and to participate in decision-making replaced the old autocratic methods of supervision and control. Workers were to take a more active role in the production process by membership in committees, the suggestion system, and increased face-to-face dialogues on lower management levels. This is also aligned with the ILO Declaration of Principles, to wit: "All human beings, irrespective of race, creed, or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity".

Other important offshoots of the human relations movement are --- 1) Kurt Lewin's *group dynamics* (he is the father of group dynamics) which holds that active member participation in decisions will result in more

production, deeper satisfaction, and greater attainment of group objectives; and 2) Roethlisberger's "case method" approach in the study of human relations, based on the complexity of human behavior and the "uniqueness" of each situation.

Mayo and his colleagues from Harvard, otherwise dubbed as *human relations theorists*, pioneered the use of the scientific method in their studies of people in the work environment. Later researchers, more rigorously trained in the social sciences (psychology, sociology, and anthropology), used more sophisticated research methods and became known as "behavioral scientists" rather than "human relations theorists".

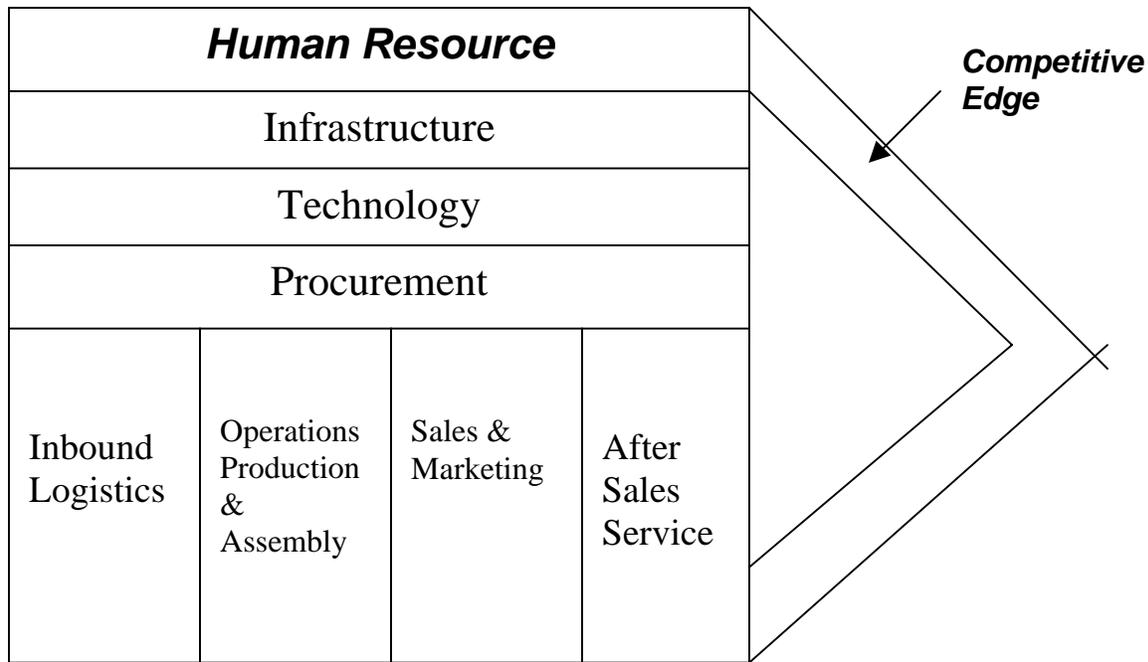
## Summary

By the end of the 20<sup>th</sup> century, some people questioned whether HRM made any value-added contributions to organizations. Many of the traditional administrative HR functions had become automated processes most efficiently outsourced to organizations with specialized expertise (e.g., payroll preparation, janitorial services, canteen services, record-keeping thru *PeopleSoft*, etc.). It is now a department whose employees spend 80% of their time on routine administrative tasks, which can be performed more expertly for less by others. Human resource management is at a crossroad in its evolution. It has developed highly efficient programs, practices, and policies to serve industrial organizations of the 20<sup>th</sup> century. However, the demands of the 21<sup>st</sup> century knowledge economy present a new imperative for HRM more than an efficient employment bureaucracy bequeathed to us by the Industrial Revolution and management *giants* like Taylor, Weber, Fayol, and Mayo, et al. To become a viable contributor to organizations in the new economy, HRM must undergo self-examination and redirection. It must reinvent itself to preempt being consigned in the dustbin of obsolescence. This will require a *paradigm shift* or a new focus: 1) on building strategic capability (a readiness for the present and an ability to adapt in the future), which consists of three components directly related to HR – human capital ("that which goes home with employees at night"), structural capital ("that which is left behind when the employee goes home at night") and relationship capital (networks of personal relationships that provide the basis for collaborative and cooperative actions); 2) on expanding the boundaries of HRM to include the entire value chain, e.g., including suppliers, distributors, and customers, as described by Michael Porter in his value-chain analysis (Hitt, 1999), well-beyond its traditional operational focus – hiring, firing, promoting, training, and so forth; and 3) on managing new roles – roles that contribute directly to the creation of organizational capabilities, e.g., *human capital steward* (managing the sum total of know-how, skills, and capabilities of individuals in the organization), *knowledge facilitator*, *relationship builder*, and *rapid deployment specialist* (please see Appendix C). Staying within the functional bureaucratic boxes that HRM has created for itself will only undervalue its impact on organizational effectiveness. Indeed, the challenges posed by the knowledge economy are formidable (Lengnick-Hall and Lengnick-Hall, 2003), let alone in its complexity. And yet the microchip era owes its existence from a simple, uncomplicated but ubiquitous office gadget, a bent paper clip!

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## Appendix



APPENDIX A: MICHAEL PORTER'S VALUE CHAIN ANALYSIS

The sustainable competitive edge is characterized by VRIN, which is the acronym for Valuable, Rare, Inimitable, and Non-Substitutable. *Source:* (Hitt, et. al, 1999, see End Notes).

<b>Knowledge Economy Characteristics</b>	<b>Definition</b>
Symbolic goods/Digitization	Electronic symbols representing information about the physical goods that we need to know to conduct the transactions (for example, details of a banking transaction): human communication, delivery of government programs, execution of health care, business transactions all become based on ones and zeros.
Demassification	Reduced dependency on the need for physical concentration or massing (collocation) of labor, materials, and money.
Boundaryless enterprise/ Globalization	Knowledge transcends firm, industry, and national boundaries; organizations have time-and-space-independence; work can be performed from a variety of locations.
Virtualization	Physical things can become virtual, such as corporations, teams, auction sites, and so on.
Connectedness/Unprecedented partnering/integration-internetworking	Interconnections within and between organizations and institutions; interconnections between businesses and customers; no one organization can have all the knowledge needed, so partnering is essential.
Disintermediation	Elimination of the intermediaries in economic activity – anything that stands between producers and consumers.
Convergence	Bringing together different economic sectors to create new products and services (for example, telecommunications).
Personalization/Mass customization/Prosumption	Fitting products and services to the unique needs of individual customers; consumers become involved in the actual production process as their knowledge, information, and ideas become part of the product specification process.
Dynamic Pricing	Pricing decisions change based on time and place as products and services are constantly updated and shifted.
Immediacy	Business is transacted in real time; enterprises continuously and immediately adjust to changing business conditions; product life cycles become shorter.
Customer Communities	Customers talk with other customers on a local and global scale (e.g., Amazon.com)

APPENDIX B: ELEVEN CHARACTERISTICS OF THE KNOWLEDGE ECONOMY

Source: (Lengnick-Hall and Lengnick-Hall, 2003:22-23)

New Roles for HRM	New Challenges for HRM
Human Capital Steward	<ul style="list-style-type: none"> <li>• Intellectual capital is not owned by the employer but is bought and sold in human capital markets</li> <li>• Workers are volunteers or free agents</li> <li>• Market contracts replace (most) employment contracts</li> <li>• HRM must ensure that the organization's human capital is available, capable, effective, and grows in value</li> <li>• HRM must broker HR services, such as talent acquisition, learning, and so forth.</li> <li>• HRM must leverage human capital (i.e., focus on doing the right things and gaining maximum output for a given input).</li> <li>• There is a greater dependence on key knowledge workers and ensuring they are attracted and retained.</li> <li>• There will be higher entry-level requirements for employment.</li> <li>• Careers replace jobs.</li> </ul>
Knowledge Facilitator	<ul style="list-style-type: none"> <li>• There is an increased emphasis on learning and encouraging people to learn continuously.</li> <li>• There is a necessity to manage knowledge (acquisition, dissemination, and so forth).</li> <li>• The organization must tap into all employees' knowledge as sources of innovation.</li> <li>• HRM must facilitate the sharing of knowledge acquired by employees.</li> <li>• HRM must determine how to reward knowledge acquisition and sharing.</li> <li>• Information must be made available and accessible to employees</li> <li>• Firms must act on the new knowledge and insights, and abandon obsolete behaviors.</li> </ul>
Relationship Builder	<ul style="list-style-type: none"> <li>• There is an increased emphasis on cross-functional teamwork.</li> <li>• Technology will make information more accessible and will join people together in different ways.</li> <li>• HRM must build networks and shared people communities around the strategic objectives of the business to ensure competitiveness.</li> <li>• The HRM function will focus externally and internally and look more like operations management, dealing with vendors and managing the supply chain.</li> </ul>
Rapid Deployment Specialist	<ul style="list-style-type: none"> <li>• The new goal for HRM will be to manage markets, some of which will be rapidly changing markets. HRM will anticipate what rapidly changing product markets and business strategies will require by way of human capabilities and find ways to deliver it.</li> <li>• Work assignments are fluid, involving responsibility for results rather than tasks.</li> <li>• The future resides in the capacity to design a versatile, evolving, flexible HRM architecture that supports an increasing pace of change. The organizational infrastructure needs to be reconfigurable, that is, elements of information, business processes, and organizational design must be capable of being combined in different ways to meet situational needs.</li> <li>• Common purpose and core values supplant tight managerial control systems and job descriptions.</li> <li>• Widespread sharing or organizational information is necessary.</li> </ul>

APPENDIX C: HUMAN RESOURCE MANAGEMENT IN THE KNOWLEDGE ECONOMY

(Source: Lengnick-Hall and Lengnick-Hall, 2003: 34-35)

# Inculcating Life Long Learning & Training in Human-Resource-Development (HRD) through Tripartite Educational Partnership between Higher Institutions, the Government and the Corporate Sectors in Malaysia

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## Abstract

The quest for continuous learning and training in human resource development (HRD) is the key to success for many organizations. In line with this vision, life long learning is an essential challenge for inventing the future of Malaysian society. Unlike developed countries, life-long-learning is a 'fairly' new concept in Malaysia introduced to engage the citizens with continuous learning and training in life. It represents a wide ranging concept which extends well beyond the boundaries of formal education. It affects a range of stakeholders including governments, business, industry, clubs societies and associations, providers of adult formal and non-formal education and community based learning, and increasingly every individual or organization who makes use of the Internet and technology. Life long learning needs to be inculcated and encouraged to the potential learners and citizen at large. This paper discusses the importance of inculcating the concept of long life learning and training to improve and sustain continuous staff development in Corporate and Government sectors in Malaysia through tripartite collaboration and partnership between higher institutions, the government and corporate sectors. Tripartite partnership will provide a win-win situation to all participating parties. With the potentialities and the availability of resources, the role of higher institutions and partnership between higher institutions, the government and corporate sectors will be discussed. With the emerging educational tools and technologies, and significant room for educational development and training for the work force life-long-learning only enhances more opportunities for learning and training. This paper advocates that with collaboration, together we can make the acquisition of knowledge a life-long activity in which institutions of learning becomes the centers for making individuals mature learners with an autonomous capacity to self learn outside the institutions walls throughout their lives.

## Introduction

Knowledge and training can enable workers to achieve higher productivity and innovation. The concept of learning, training, attaining new knowledge, re-training, and others along that line is embedded in what is known as **life long learning**. It does not imply that learning is an externally imposed requirement, but it refers to a society in which learning possibilities exist for those who want to learn (Coffield, 1999, Cappelli et al.1997). Life long learning is not a new concept to many countries like United Kingdom, America, Australia, and to many European countries, but, not the case for many developing countries including Malaysia. It is a concept that is grasping popularity and 'growing'. Internationally, according to Candy (2000) it is a concept that goes back at least to the year 1972 when the Final Report of Unesco's International Commission on the Development of Education was published which argues

...every citizen should have the means of learning, training and cultivating himself or herself freely available...under all circumstances, so that he or she will be in a fundamentally different position in relation to his or her education...(Faure et.al, 1972, p.163, in Candy, 2000)

Since then, life-long learning has spawned into a huge body of literature in all parts of the world. Such development is also evident in Malaysia. Today, it is a concept which goes beyond the boundaries of mainstream education, and affects various stakeholders which include federal government, Ministry of Education, Ministry of Higher Learning, business and industry, associations, society at large, institutions and increasingly every individual or organization.

A critical task that all Malaysians have to face like any other citizens in the developed countries at the start of the twenty-first century is to sustain economic growth in the global economy. This challenge has recently become even more complex and demanding. The world has change so much in the span of the last 20 years. Economic, social and technological change is gathering pace and calls for continuous policy and institutional adaptation in order to meet new needs and seize the opportunities that are opening up in a rapidly integrating world economy. It has been increasingly recognized that people's endowment of skills and capabilities, and investment in education and training, constitute the key to economic and social development. Skills and training increase productivity and incomes, and facilitates everybody's participation in economic and social life.

However, the intricacy in putting into place effective collaboration policy between various stakeholders (i.e public and private with higher institutions) gives high priority to education and training are appalling. It is taking place, and efforts are made to realize collaboration and partnerships. Nevertheless, such partnership is still slow in motion. In view of the rapidly growing economy, such partnership and collaboration need to be expedited to benefit all sectors and organizations.

Some countries are investing heavily in their human resources. But, other countries, particularly under developing countries have not been able to maintain investments at sufficiently high levels to meet their rapidly increasing needs. The overall goal of the global economy should be to provide opportunities for all people to obtain decent and productive work in conditions of freedom, equity, security and human dignity. This paper advocates educational partnership between higher institutions with government and corporate sectors to inculcate life-long learning and training for the benefit of the people, and workers, and ultimately the corporations, and the institutions themselves. This paper advocates that with collaboration, together we can make the acquisition of knowledge a life-long activity in which institutions of learning becomes the centers for making individuals mature learners with an autonomous capacity to self learn outside the institutions walls throughout their lives. This paper believes through such partnership, Malaysians, and in particular the government, corporate sectors could help to improve social progress. We believe that, life-long learning and training could help to attain the following objectives that are vital to social progress in Malaysia:

1. continuous improvement, learning and training
2. employment creation and career improvement
3. competitiveness, and growth
4. social inclusion

## **Incorporating Life-long Learning in Malaysia**

Malaysia is a fast developing nation. The country is transforming itself and moving aggressively towards building an effective and successful 'K' Economy. Our society according to Tan (2000: p.59) "... is information and knowledge hungry. We need greater speed, more efficiency and effectiveness in all our endeavours. For this, we need all the knowledge and information that we can get from all sources, and from around the world."

In the last 15 years, a market sensitive education system has evolved in Malaysia. Schools and higher institutions in the country are taking up the challenge of globalisation by changing not only the content of curriculum and programmes but also more importantly their delivery systems. IT-enhanced *teaching* and *learning* are already making computers, video conferencing and the use of the Internet a commonplace in Malaysia educational settings. The Malaysia Ministry of Education sees the need to bring about a significant transformation of the Malaysian educational infrastructure in order to meet the 21<sup>st</sup> century as a technologically competent and scientifically adept society in line with the aspiration laid down in Vision 2020 by Dr. Mahathir Mohamed in 1990.

In order to focus on K-Economy as a national strategy for the near future, the country realises the significant role of education and its impact on development. Education is important in achieving stability and continuous sustainable progress. In the annual government budget over the last 20 years, *education* has been a major item of public expenditure and this allocation is steadily increasing. In 1991 for example, education was allocated RM6642.1 million amounting to 17.3% of the national budget allocation. The following year, the allocation was increased to RM8239.2 million, constituting about 18.1% of the national budget allocation. In 1993, the amount

allocated for education was RM8923.5 million, constituting about 20.2% of total allocation. Ever since then, allocation for education has been sustained at between 17 to 20% of the country's budget (Malaysia,1998). In the recent 2002 budget announcement by the Prime Minister who is also the Minister of Finance, 20.52% was allocated for education planning and development in the country. The continuous and sustained allocation of a significant percentage of the country's wealth on education is evidence of Malaysia's commitment and aspiration to fulfil the country's obligation to provide better and accessible education for all her citizens.

Today, Malaysia has higher institutions than before. The establishment of higher learning institutions has flourished. More public and private universities and colleges are built to meet the demand for professional qualifications and a trained workforce. New programmes and courses are continuously being introduced.

Consequently, *distance education (DE)* which was first introduced and implemented by Universiti Sains Malaysia in 1971 has become an increasingly important mode of education to meet the rising demand for education. Such progress has now introduced life-long learning as a new educational vehicle to democratise education and training in Malaysia. Life-long-learning functions as an economically viable medium to provide continuous knowledge and skills to its learners. This, and many other advantages of life-long-learning as an educational alternative, has resulted in the birth of many public and private colleges and universities and DE and life-long learning programmes and courses throughout the country.

In view of recent development in the world economy, and globalization, Malaysia recognises that 'knowledge' is the passport to prosperity and social stability. With a market economy, Malaysia has a good communication infrastructure for life-long-learning in terms of printing, radio and television broadcasts, telephone, postal services and telecommunication. The Multimedia Super Corridor (MSC), which is the brainchild of the Prime Minister, could play a major role for the future development of distance education in Malaysia.

To survive and flourish as part of the 'global village', the government believes that Malaysia has to become a 'learning society'. As Brown & Lauder (1977: p.179) say, "...it is the knowledge, skills and insights of the population that is the key to future prosperity." This is a concept that needs to be inculcated into Malaysians' life, educational system, and society at large. Acknowledging the monumental importance of realising such a concept, many institutions have promoted lifelong learning as a key objective for an education provider.

*Vision 2020* is not new to Malaysians. It is not Dr. Mahathir Mohamed's view of the future but a carefully planned response by the government and the Malaysian people to global change and development. Malaysia's own development has reached a critical juncture. Having Singapore as a close neighbour and being located in a region of rapid development adds to the pressure to innovate. The structural transformations of its economy place the citizens of Malaysia at the threshold of a fundamental shift; first into an information-based society and then beyond to a knowledge based one.

In the government view, Education must build a pool of well-educated, highly skilled and strongly motivated professionals. The nation's human capital is its most important economic and development resource. Today, the nation is embarking on an educational journey that will deliver on the promises made to establish Malaysia as a fully industrialised country in this new century.

The Malaysian government is facilitating change and seeking innovative approaches to expand the education base. Strategies for growth and development of education in the 8th Malaysian Plan are a significant departure from the government-propelled initiatives of previous years. A Malaysia approach in education is making it possible for both the public and private sector to meet the needs for tertiary education by offering degree, diploma and certificate level courses either by the traditional method or distance and now through inculcating life-long-learning.

In the last 10 years, many developments have occurred in the Malaysian educational system; the stage for a major revolutionary change has been set. Since 1995, the Malaysia Ministry of Education has effectively passed six phases of legislation to position Malaysia as a regional education hub. The *Education Act 1996*; *The National Council on Higher Education Institutions Act 1996*; the *Private Higher Educational Institutions Act 1996*; *National Accreditation Board Act 1996*, the *Universities and University Colleges (Amendment) Act 1996*, the *National Higher Education Fund Board Act 1997* and *National Higher Education Fund Board Act (Amendment) 2000* has facilitated a more market centred education system (Gan & Azahari, 1998).

With the legal and policy framework almost complete, the education system is set for a quantum leap which will bring sweeping changes to Malaysian institutes of learning, enabling them to offer a wider range of courses, different options and approaches to learning, better management, new teaching methods and an overall increase in productivity and standards.

The development of the education system in Malaysia reflects the multi-faceted role it assumes in the creation of a united, democratic, just, liberal, and progressive society. The overriding national objectives of education are national unity and human resource development. Education is regarded as a vehicle for the workforce needs of the country. Educational policies are aimed at providing greater opportunities for those in the lower income groups and the deprived regions in the country.

Innovation in education has been continuous. Nevertheless, further changes will still be needed. In the context of the changing world and as a result of the advances in science and technology, Malaysia has no alternative but to remain competitive in global economic activities, whilst at the same time guaranteeing domestic growth and development. Operating within these parameters, issues pertaining to equity, access and democratization of education, education quality, efficiency, as well as values, education will continue to be geared towards enhancing the quality of life of our children and generations to come.

In the new economy, the structure of the economy will not be the same as before. In the global K-economy, wealth is measured not just by agricultural or industrial production, but also by the new values created through the resource-based application of knowledge (Cappelli et al. 1997, Brown & Lauder, 1997, Tan, 2000). It may not be enough to rely on traditional industries with tangible products. There is also a need to develop new industries to produce information and knowledge products. Nevertheless, the manufacturing sector, which accounts for more than one-third of the GDP of the country, will continue to play an important role in the K-Economy. However, in view of the gravitation of the economy from production-based to knowledge-based, the manufacturing sector will have to adjust to the rapid change in technological advancement by innovating its products through research and development (R&D) and enlarging the pool of knowledge workers. It is no less important to develop the services sector. It is generally known that the level of development of the service sector, particularly the knowledge intensive segments, has become a key determinant of competitiveness for many economies. There are many compelling reasons for Malaysia to develop its services sector. An expansion of this sector would help to create national wealth. The advancing economy has created a demand for skilled knowledge workers and professionals. Skilled labor is still in short supply, especially in the Information Communication Technology (ICT) sector and manufacturing industries. Therefore, several additional efforts have been made to increase ICT literacy. In surging towards a more globalized economy, Malaysia spearheads the information age through the aggressive promotion of Information Technology (IT). It has embarked on e-education, borderless marketing, electronic commerce and digital broadcast through the Multimedia Super Corridor (MSC) project. Currently, e-learning is sweeping across the training and education industry, creating a chain reaction that is revolutionizing the way people learn at work, in school and at home. Nevertheless, almost all universities in Malaysia have incorporated new skills such as information and knowledge management, as well as programming applications, into their education and training curriculum. With the rapid deployment of ICT, it will be necessary to accelerate the learning process and innovate through the effective application of the acquired knowledge.

## The Importance of Learning & Training

Human being is born with an innate ability to learn and it is a process than has no endings. Learning is part of everyday human activities that defines characteristics of what it means to be human. *Life long learning* is therefore a concept that only advances the idea that learning is a human preoccupation that is bind to human's life and activities. Learning will and should not cease till one departs from life. We believe that life long learning makes an invaluable contribution to the personal, social and economic development and society as depicted in Fig. 1.

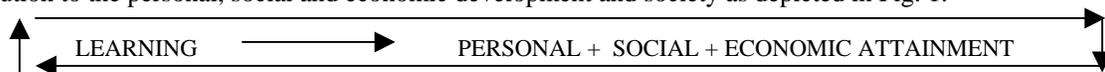


FIG. 1: LEARNING PRODUCES INVALUABLE CONTRIBUTION

This paper argues the need for workers to constantly update their skills to survive and profit in the global economy. Workers need to be continuously trained, and learn different skills to remain competitive, and such effort is made more plausible with collaboration, partnership with different organizations that has relevant interest and desire. One possibility, such collaboration as advocated in this paper could be in place between *public-private-educational institutions*.

The discussion of life-long-learning usually emphasizes progressive social objectives such as social cohesion, equal opportunities, social inclusion, active citizenship, and so on.

Public education systems particularly higher institutions have been seen as a means of securing social progress. But, dependency on higher institutions to campaign, and inculcate life long-learning and training among Malaysians is not sufficient and slow coming. Partnership is advocated and needed among different segmented entities or stakeholders to ensure its success. The incorporation and introduction of life long learning into educational opportunities within the human resource development is timely, and is parallel to its often stated aims.

As distance and life long learning educators, we are concerned with the role of corporate and private organizations in democratic redistribution of educational opportunities by way of education and other public services. The question therefore arises as to whether or not lifelong learning, together with related concepts such as the learning society, K-Economy, all constitute an element that can be fully advocated and realized among the public, private organizations with the higher institutions. The core argument that this paper brings forward are three folds. Life long learning must be made into a policy, a strategy and a cultural practice as shown in table 1

TABLE 1: LIFE LONG LEARNING MUST BE MADE INTO A POLICY, A STRATEGY AND A CULTURAL PRACTICE

<p><b>Life-long-learning</b></p>	<p><i>A policy for the expansion of the education and training system, addressed to competitiveness and employability</i></p> <p style="text-align: center;">↓</p>	<p>This concept has to be made into an on-going policy that focuses on strengthening human resource. Workers need to be –retrained and given an opportunity to be multi-skilled in order to become a better work force.</p>
	<p><i>A strategy for mutual partnership among higher institutions of learning with public/private organizations</i></p> <p style="text-align: center;">↓</p>	<p>It is timely that public-private organizations and institutions work together for the benefit of all stakeholders. Institutions of higher learning are primary providers of education, and training, and could only do its part in inculcating life-long learning if provisions are made in organizations to enable workers and employers to seek continuous learning and training.</p>
	<p><i>As a cultural practice</i></p>	<p>Last but not least, it is also timely that learning, and in particular continuous learning is encouraged and commanded. With such culture existing, Malaysians would be a learning society, and this would help to inculcate the culture of life-long-learning in the country.</p>

## **The Need to Inculcate Life long Learning & Training**

“Do we need to inculcate life-long-learning? Do we want to be world leaders, and be able to provide services and produce products with world distinctions? Do we have the skills and human resource that is able to judge, screen and select the best quality of information? Do we have the professionals to access and screen needed information?” ‘It’s a different world. The working environment has changed significantly, and that require a better work force’ a phrase that ideally answer this very question. Learning, re-learning and re-training have certainly receive utmost attention and has many implication in today’s world.

Learning in recent years has taken on a particular significance in terms of both individual and collective advancement and well-being (Coffield, 1997). In times of rapid and pervasive change, an existing or static body of knowledge does not equip people with the ability to cope, much less to thrive and advance.

Malaysians have to change. In particular, the current mindset about what constitute learning, teaching and education have to be transformed. Quite often, the view on teaching and learning is dominated by the view which is often fitted into a mold in which teacher is explicitly one who tells or shows presumably unknowing learners something they presumably know nothing about. A critical challenge is a reformulation and reconceptualization of this impoverished and misleading conception as it is inadequate in life-long-learning. Learning is more than being taught. Learning new skills and acquiring new knowledge cannot be restricted to formal education settings.

## **Dominant Changes that Made Life-Long-Learning Timely**

What, then are the dominant changes that are impacting on our lives as Malaysians and bringing about a requirement for continuing learning, re-training and adaptation?

### **Effects of New Technologies & Working Environment**

The first and most obvious is the pervasive effects of new technologies. Whether in the home, the community, the office, the library or on public transport, people have to cope with new and often intimidating technologies. Thus simply to go about one’s everyday life, there are always new introduction to recent applications, software, hardware and new concepts and terminologies to be mastered. Today’s modern working environment calls upon an impressive range of technologies to enable professionals who may be separated by distance to communicate with each other in real time (synchronous) and delayed time (asynchronous). It is virtually impossible to escape the implications of new technologies, which affect every aspect of our lives. This means that learners, workers and professionals can access education and learning opportunities at a time, place, and pace to suit their individual lifestyles, learning preferences and personal development plans. Such separation according to Idrus & Lateh (2000) give rise to “an impressive and innovative array of media mix resulting in the application of technology...” (p.197). Such development offers a radical new direction for not only distance educators, but life long learning enthusiasts, employees, teachers and learners alike, incorporating flexible and open learning and training methods as well as modified and specially created learning resources.

The main task of any life long learning provider is to design and offer educational experience that encourages learning and training. As such, life long learning providers need to understand that its educational products and services are to service the learners and provide an encouraging educational experience for the learners. In doing so, many factors need to be considered in developing and delivering life-long-learning courses to achieve effective and efficient implementation of the courses or programs.

### **Globalisation**

A second dominant source for new leaning is the phenomenon of ‘globalization’ which has triggered significant change on how business and companies, educational institutions, and organizations operate. The economy crisis late 97’/98’ for example forced mergers, downsizing, and retrenchment as part of normal activities to sustain survival. Globalization in itself embraces everything from the changing geo-political situation, to issues of mass migration, the displacement of large numbers of people, and the impacts of different cultures and religions on established ways of thinking and behaving. However, there is also a more alarming aspect of globalization which demands new learning, and that is the effect of changed economic circumstances, the emergence of multinational corporations and,

for many, the loss of jobs, necessitate the development of new skills in order to gain or retain employment. Globalization in some ways has forced people to re-train themselves, and coming back to institutions, and that has become a choice for individuals to remain skillful and competitive.

#### **Changing Work Patterns**

Globalization has indeed changed every aspect of human activities. Work patterns are drastically different and more demanding. Whether changing work patterns are precipitated by globalization, technology or simply by changes in organizational structures also provide a significant pressure for continuous learning (Coulson-Thomas, 1999). Clearly this imperative impacts most directly on those already in the workforce, but there are few if any people who escape the need for updating, learning about new markets products or services, adjusting to changing organizational structures and systems, or in other ways engaging in work-related learning. As mentioned above, some such learning takes place through short courses and other off-the-job interventions; some through mentoring or on-the-job training, some through the distribution of new specifications and organizational structures via bulletin boards, email or through the organization's intranet. Most of it occurs, however, incidentally and continuously through informal means including conversations with colleague, suppliers and customers, or through casual interactions with others in, or in relation to the workplace.

#### **Information Surplus**

Globalization and the change environment has also contributed to the excessive flow of information and knowledge to us. In some ways, the world has witnessed an unprecedented surplus of information. The total amount of information in our society is expanding at an unprecedented rate, and it is a challenge for everyone. This phenomenon, commonly dubbed 'information overload,' captures perfectly the extraordinary challenge in keeping up without feeling overwhelmed by the tidal wave of information; a challenge which commonly leads to a phenomenon called 'information anxiety' (Tan, 2000, Wurman, Leifer & Sume, 2000). With such a change in working environment, organizations of all kind need to be able to maximize the use of the unprecedented amount of knowledge effectively. This calls for re-training, and repositioning the work force so that the best results could be acquired.

### **Partnership Criteria to Inculcate Life Long Learning as a Practice**

From the perspective of partnership, the selection of the partner is of superior importance. Partnership selection distinguishes between criteria for partners associated with operational skills and resources which is vital for competitive success and criteria associated with efficiency and effectiveness of partner's cooperation. Partnership will be based on mutual interests, trust and the management of ongoing relationships. Alliances and joint ventures will focus executive behavior on working collaboratively, communicating and gaining consensus. A review of successful partnership has identified the following important criteria that higher institutions, public and private organizations could consider:

1. Partnership is effective when the driving forces are complementary
2. There should be complementary strengths-strategic synergy
3. Partners must have co-operative spirit, the importance of 'chemistry'
4. Partners are willing to address new risks, and committed to flexibility
5. Partners should have compatible styles of management and corporate cultures
6. Partners must practice effective communication between partners

Understanding partnership criteria helps in understanding what are expected to be pursued when embarking on cooperative venture or partnership on inculcating life long learning and training between public-private-higher institutions.

One needs to understand how each entity or organization complements each other. This 'win-win' situation would strengthen the 'alliance' and give benefits to its participants, namely the higher institutions as educational and training provider, the professionals representing the public and private organizations as 'potential learners'. There are indeed vast potential to be developed.

## **The Assembly of 3-Way Collaboration for Human-Resource Development (HRD)**

The assemble of this three-way collaboration or partnership is timely as countries affected by the Asian currency and economic crisis of 1997 begin to show signs of recovery. One of the consequences of the economic crisis was the restructuring of business sectors in the affected countries. This has affected millions of Asian workers and resulted in rising unemployment. Economic recovery means these displaced workers can now look forward to better employment prospects. However, in some cases, re-employment will come about only if workers possess the skill set and capabilities needed for the jobs which are being created. Hence, the importance of HRD cannot be overstated. Another reason why this is timely is the emergence of the knowledge-based economy (KBE) which has been adopted by Malaysia. The KBE is one in which intellectual capital will be the key source of competitive advantage instead of physical assets. Increased globalization and rapid advances in technology, communications and transportation has greatly removed the geographical barriers of time and space. This means that the importance of physical assets such as land, labor and infrastructure as key factors to sustain competitive advantage has been significantly eroded. Factors of production are now more mobile and portable, traveling freely across the globe unhindered by national boundaries. The ability of a workforce to absorb and apply knowledge to add value will instead be the key source of competitive advantage in the business environment of the future.

HRD or the continual development and investment in people has therefore become more important today than ever before to provide the skills and intellectual capital that is essential for businesses and nations to not only survive but to explore new business opportunities.

### **Partnership in Training**

The effectiveness of HR development and training efforts, however, hinges very much on partnership and shared commitment of employers, employees and the public and private sectors in general. It has to be a three-ways effort. Effective HRD programs would require employers to invest in training and skills upgrading that go beyond meeting the requirements of present jobs. Employers must prepare workers for changes in technology and the way in which a company does its business. Employers must also encourage and reward workers for their keenness to master new skills or upgrade old skills. For employees, their active participation in learning and re-learning would sharpen their competency and adaptability to new and higher-value added jobs in a rapidly changing business environment. Skill upgrading is the worker's guarantee of employability.

Likewise, higher institutions and providers of education in general have a social responsibility to invest and equip the workforce with basic education that are essential for the acquisition of new skills to keep pace with technological changes. Governments must promote the concept of life-long learning and constant refreshing of every worker's stock of skills and knowledge.

Shared commitment amongst the partners (public-private-educational institutions) is necessary to put in place a supportive infrastructure to build up a learning culture whereby workers are continuously motivated to train and upgrade themselves even as the labors market evolves to meet new demands.

In such spirit, the partnership between the public-private-educational organizations in the development of human resource is reflected in the formulation of Malaysia's strategic manpower strategy which is an attempt to prepare Malaysian workers with the necessary skills and capabilities to take on the challenges of a knowledge driven economy in the 21st century. There is still much room for expansion and development. A strategic thrust of manpower is the creation of a national system of lifelong learning for our workers so that their knowledge and skills will remain relevant and needed as job requirement changes.

In addition, the Ministry of Higher Education has set up a network of Community Colleges to provide workers with continuous education, job placement assistance, as well as assisting them in seeking out appropriate skills training and upgrading. The longer-term objective is to create a strong learning culture in Malaysia where every worker with the desire to upgrade himself or herself, will have the opportunity to acquire new knowledge and higher skills. For our workers, life-long learning translates into life-long employability and provide the following advantageous:

### **Economic and Social Benefits of Learning, Education and Training**

Education and training make individuals employable, help them gain access to decent work and escape poverty and marginalization. Education and training also improve individuals' productivity and income earning opportunities at work, their mobility in the labor market, and widen their choice of career opportunities. According to the World Bank, primary education is the single largest contributor to growth and development in developing countries.

Economic growth and social development of countries are invariably associated with large and sustained investments in education and training. Countries with the highest incomes are also those where workers are most educated. Witness enrollments of high income countries in primary education, which is universal, secondary education, which is almost universal, and tertiary education, which is approaching 50 per cent of the relevant age group. Some 98 per cent of the adult population in these countries is considered literate. By contrast, in the poorest (or least developed) countries, primary education enrollments were in 1997 around 71.5 per cent, secondary education enrollments 16.4 per cent, and tertiary education enrollments a mere 3.2 per cent of the respective age groups. That was 8 years ago, today this number could easily increase to a better statistics. Basic literacy, essential for learning and "trainability", and for employability and access to decent work in today's world, eludes a significant share of adults in Sub-Saharan Africa and Southern Asia. In 2005, it is believe that advanced and developed countries invest at least 30 times more per student in education and training than the least developed countries.

Human resources development and training contribute to improved productivity in the economy, reduce skills mismatches in the labor market, and promote a country's international competitiveness. A comparative study of Germany and the UK found that the greater willingness of German employers to offer apprenticeship training, as opposed to the regular youth employment and informal training which came to dominate in the UK, contributed to Germany's higher productivity and better trade performance.

Finally, and beyond any economic considerations, education and training bring benefits to society. Human resources development and training underpin the fundamental values of society - equity, justice, gender equality, non-discrimination, social responsibility and participation of all in economic and social life.

### **Empowering the Workers**

Every Malaysian has a right to education and training, as do many national constitutions, for example, in Argentina, Bolivia, Brazil, Chile, Germany, Guatemala, Italy, Mexico, Spain and other countries.

More than ever before, individuals want to master their own lives and expect to contribute to the economy and society. The development of individuals as active citizens of society is increasingly given a central place in statements of learning, education and training objectives. Active citizenship is about how people participate in all spheres of economic and social life, the chances and risks they face in trying to do so, and the extent to which they feel that they belong to, and have a fair say in, the society in which they live. Decent work underpins individuals' independence, self-respect and well-being, and, therefore, is a key to their overall quality of life. Many countries, both industrialized and developing, are putting the individual in the center of the education and training process, but trussed by financial means that help him/her access learning.

Denmark is pioneering a learner-centered approach to vocational education and training. Others, for example Tunisia, Egypt, Singapore, Argentina and many other Latin American countries, are introducing fundamental basic education reform that emphasize "essential", "basic", "key" etc. skills that are intended to promote the independence and initiative of the individual. In Sweden, the Adult Education Initiative (AEI) the largest adult education investment initiative ever undertaken in the country, explicitly puts the focus on the individual. All AEI programs are governed by his/her needs, wishes and capacity. Education should help to improve the individual's opportunities in the labor market and provide for further study opportunities; it must be demand-led, be it in terms of organization, planning or actual courses provided. Every individual is given ample scope to make a personal choice of the study he/she wants to undertake, its timing and location.

The individual is becoming the architect and builder responsible for developing his/her own skills, supported by public and enterprise investment in life-long learning. Democracy is about empowering the individual. Several factors - economic, social and technological - account for the growing emphasis on the individual. Firstly, in any modern economy today, the production of goods and services increasingly relies on human, rather than physical, capital, i.e. on its workers' individual and collective endowment of knowledge and skills.

Secondly, from a passive, and teacher oriented, approach to gaining knowledge and skills, there is a shift towards learning for life and work, centered around the individual. The process of formal education and training is becoming less one of passing on information - as there is too much of it in today's world - and more one of individuals learning to learn so that they can find out for themselves. The relevance of knowledge about facts is diminishing, while the need to learn how to access, analyze and exploit information and transform it into new knowledge is increasing. It is only by giving the individual the desire, and tools, including financial means, to take charge of her/his own learning that he or she will be able to live and work in the knowledge and information society.

Thirdly, modern communication and information technologies (ICT), in particular the Internet- based technologies, offer great opportunities. ICTs are used by increasing number of people as learning tools, since access to them is expanding rapidly in the advanced, as well as in many middle income, countries and free courses are becoming available on the Internet. These learning opportunities are not restricted to computer and ICT skills but cover now a vast, and rapidly expanding, range of learning opportunities for life and work in the knowledge economy and society. However, the "digital divide", i.e. unequal access to ICT and the Internet - between countries and within countries - runs the risk of growing even wider unless serious efforts are undertaken nationally and internationally to reverse the trend.

## Conclusion

The changes in the business environment as a result of rapid globalization and technological progress present new challenges in the area of human resource development. The tripartite collaboration effort could provide an excellent opportunity for Malaysia to share experiences and to formulate new strategies for human resource development and training. Successful implementation of human resource development and training programs will play an important part in helping the country to achieve sustainable economic growth. This will in turn bring about greater employment opportunities, social progress and a higher standard of living for workers in Malaysia. To survive the higher intensity of competition brought about by globalization, Malaysians will have to adapt themselves to the demands of the K-economy. It must be remembered that, other competing economies are also racing to transform their populations into knowledge societies, where people are constantly enriching themselves with knowledge to stay competitive. And inevitably, all these people will have to embrace the philosophy of life-long learning.

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# **Individual Innovativeness and Organizational Citizenship Behavior: The Mediating Role of Leader-Member Exchange**

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## **Abstract**

Little is known on whether individual innovativeness predicts organizational citizenship behavior. This study examined the relationship between individual innovativeness and organizational citizenship behavior and whether leader-member exchange mediated the relationship between these variables. Drawing on the social exchange theory, the results were consistent with these predictions. A sample of 385 non-supervisory bank employees was obtained from domestic commercial banks using survey questionnaires. Findings provided important evidence that the way supervisors treat their employees plays a very important role in getting innovative employees to perform organizational citizenship behavior. Research and practical implications are discussed.

## **Introduction**

It is now commonly accepted that an important condition of organizational effectiveness is a willingness of employees to “go above and beyond” the formal specifications of their prescribed roles (Barnard, 1938; Katz & Kahn, 1978; Organ, 1983). Discretionary organizational citizenship behavior (OCB) (Bateman & Organ, 1983; Smith, Organ, & Near, 1983) includes behaviors that are neither mandatory in-role behavior nor directly or contractually compensated for by formal organizational reward systems (Organ & Konovsky, 1989). OCB facilitate the accomplishments of organizational goals and enhance organizational performance (Podsakoff, Ahearne, & MacKenzie, 1997).

According to Organ (1988), the OCB construct comprises five key dimensions: altruism, civic virtue, conscientiousness, courtesy, and sportsmanship. Although some researchers have proposed variations of this framework, these five dimensions are the most commonly cited dimensions in the social sciences literature (Organ & Ryan, 1995). Altruism is defined as voluntary actions that help another person with work-related problems (Podsakoff, MacKenzie, Moorman, & Fetter 1990). It means taking time out of one’s own schedule to give help to someone who needs it. Civic virtue characterizes a person who participates in and is concerned about the life of the organization (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). The activities include attending meetings or functions that are voluntary or optional in nature. Conscientiousness refers to placing priority on attendance, use of time and adherence to various rules (Organ, 1988). The employee takes extra responsibilities, is punctual, and places great importance on detail and quality of tasks. Courtesy involves engaging in actions that help prevent work-related problems with others from occurring (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Employees are thoughtful and considerate toward others. Sportsmanship involves a willingness to tolerate the inevitable inconveniences of work without complaining (Organ, 1988). Employees maintain a positive mindset and abstain from bad feelings when their suggestions are rejected.

Although there have been many studies of OCB in organizations, no known studies have examined the linkage of individual innovativeness with OCB where the effect of leader-member exchange (hereinafter, LMX) as a mediator, is included. Given this lack of information, attempts are made to answer two questions. Does individual innovativeness influence OCB? Does LMX mediate the relationship between individual innovativeness and OCB?

## **Theoretical Framework and Development of Hypotheses**

This study conceptualizes individual innovativeness has a positive relationship with five dimensions of OCB--altruism, courtesy, conscientiousness, sportsmanship, and civic virtue. Further, we believe that this relationship is mediated by LMX as depicted in Fig. 1 below.



FIG. 1: HYPOTHESIZED RELATIONSHIP BETWEEN INDIVIDUAL INNOVATIVENESS AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR WITH LEADER-MEMBER EXCHANGE AS MEDIATOR.

## Organizational Citizenship Behavior

Organ (1988, p. 4) defines OCB as: "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes effective functioning of the organization." The behavior is not one that is enforceable by the organization; instead the behavior is more of a matter of personal choice. These behaviors when summing across time for a single person or summing across persons in the group, department or organization, will improve the effective functioning of the organization. Most OCB actions, taken singly, would not make a dent in the overall performance of the organization (Organ, 1988). The most critical element is that these behaviors are defined at face value. OCB are behaviors that are clearly observable by peers, supervisors, or researchers.

Williams and Anderson (1991) suggested that the interpretation of OCB has been troublesome because it has failed to clearly differentiate between OCB and in-role performance (Moorman, Niehoff, & Organ, 1993). In-role behaviors involve supporting the technical core of the business in the organizations whereas OCB does not. Similarly, Morrison (1994) argues that the boundaries between OCB and in-role behavior are often interpreted differently by different employees. A study conducted by Morrison (1994) sought to identify the boundary that views OCB and in-role behavior as distinct constructs. Morrison (1994) argues that OCB may be in-role from the employee's perspectives. An individual is more likely to engage in OCB when these behaviors are part of his or her job requirements. Thus, empirically it is not clear if the individual who engages in citizenship behaviors considers those behaviors to be extra-role or in-role (Morrison, 1994). Contrary to these confusions, this study will adopt the perspective taken from the voluminous theoretical and empirical work on OCB which gives the impression that the boundary between in-role and OCB is agreed upon and clearly defined and that OCB is the same for all employees (Niehoff & Moorman, 1993; Organ, 1988; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). In this study, a measure on in-role behavior is included as a control variable so as to isolate variance in OCB measures that is not associated with performance of in-role behaviors.

## Individual Innovativeness and Organizational Citizenship Behavior

There is a lack of previous research that has investigated a link between individual innovativeness and OCB. However, there is some theoretical support for such a link. One source of theoretical support is the social exchange theory. Perceptions of innovativeness within an organization have been directly linked to employee satisfaction and their willingness to participate in the innovation processes (Hurt & Teigen, 1977; Johnson, Donohue, Atkin, & Johnson, 2001). Regardless of the extent of organizational rigidity, innovative employees would still be satisfied with their own work and would be more likely to find unusual and interesting ways of doing it (Hurt & Teigen, 1977). The assumption here is that the more innovative the employee, the tendency will be that he or she will perform OCB. An individual who is innovative forms an attitude to do things differently. Doing things differently may go beyond what has been prescribed in the individual's job description. If the individual does not expect to receive explicit rewards on what his or her actions, this behavior can be part of what is described as OCB.

Studies on individual innovativeness (Hurt & Teigen, 1977; Johnson, Donohue, Atkin, & Johnson, 2001; Oldham & Cummings, 1996) have mostly focused on its effect on behaviors and performance in general. George and Zhou (2001) found that individual innovativeness predicted behavior of employees in organizations. Therefore, this study seeks to examine whether individual innovativeness influences OCB, which is a type of behavior.

Employees who perceive themselves as innovative are more likely to have consistent attitudes and these will in turn lead them to perform beyond their daily responsibilities. Innovative behavior has been defined as the willingness to change (Hurt & Teigen, 1977). Thus, carrying out work differently from what is prescribed in the job description with the aim of enhancing effectiveness and efficiency, contributes to what we refer to as OCB. Since there has been no previous study done between individual innovativeness and OCB, the researcher hypothesizes the relationship as follows:

Hypothesis 1: Individual innovativeness has a positive relationship with the various OCB dimensions.

## **Individual Innovativeness and LMX**

In an era emphasizing the need for change, creativity, and innovation in organizations, particularly employees' initiation of organizational change efforts, one wonders if individual innovativeness can be a contributor for organizational effectiveness; especially through the support of LMX from their supervisors. That is, employees who are innovative in their work place are, in essence, satisfied with their jobs and this triggers them to come up with new ways to improve current conditions. Individual innovativeness contributes to organization's renewal, survival, and growth in today's turbulent and competitive business environment through the performance of OCB (Amabile, 1988). An examination is thus made on the relationship between individual innovativeness and LMX, thus the hypothesis:

Hypothesis 2: Individual innovativeness has a positive relationship with LMX.

## **Leader–Member Exchange and Organizational Citizenship Behavior**

LMX describes how leaders develop different exchange relationships over time with their various subordinates as they influence each other. LMX research shows that supervisors reporting high-quality SLMX not only assume greater job responsibilities but also express contributing to other units (Liden & Graen, 1980). Hence, the quality of the LMX influences levels of delegation, responsibility, and autonomy and in turn, employees perceive greater latitude, decision influence, and feelings of contribution (Gomez & Rosen, 2001). Liden and Maslyn (1998) found a four-dimensional LMX model comprising of contribution, loyalty, affect, and professional respect. We expect the higher the LMX on each of these dimensions, the higher the subordinates will be in performing OCB. Hence, the hypothesis:

Hypothesis 3: LMX has a significant positive relationship with OCB.

## **Mediating Effect of Leader–Member Exchange on Individual Innovativeness and Organizational Citizenship Behavior**

To date, there has been little effort made to study the potential mediating effect of LMX relating to individual innovativeness and OCB. The following hypothesis is thus conjectured:

Hypothesis 4: LMX mediates the relationship between individual innovativeness and OCB in such a way that the influence of individual innovativeness on OCB will be smaller (partial mediation) or non-significant (full mediation) in the presence of LMX.

This study employs social exchange theory to investigate the connection between individual innovativeness, LMX, and OCB. Social exchange theory has been the primary framework for understanding OCB (Konovsky & Pugh, 1994; Organ, 1988; Smith, Organ, & Near, 1983). People always seek to reciprocate those who benefit them (Adams, 1965; Blau, 1964). To reciprocate the support from the organization, the employee may do so via job performance, but such performance may be limited up to a certain extent only since organization has strict contracts. Thus, the exchange that takes place will be more of an ambiguity thus allowing discretionary acts to be carried out by employees. OCB, from a social exchange theory perspective, becomes an outlet for these positive feelings. When a supervisor engages in helping behavior toward an employee, the employee incurs obligations to

repay the supervisor so that the exchange is mutually beneficial. Social exchange relationships have an implicit understanding that a history of extra-role efforts will over time be recognized, appreciated, and rewarded.

## Method

A cross-sectional research design was used to examine the relationships between individual innovativeness, LMX, and OCB. Data were collected through printed questionnaires personally administered at various banks situated in Klang Valley, Malaysia.

## Sample and Procedure

The sample consisted of 400 non-executives from the banking industry in Malaysia. Data were collected through a written questionnaire distributed through the “drop-off and pick-up” method. The respondents were informed through the cover letters accompanying the questionnaires of the voluntary nature of their participation in the survey and were assured of anonymity. A total of 390 of the distributed questionnaires were returned, of which 385 were determined to be usable for purposes of this study (i.e., completed in full). This produced a usable response rate of 99%.

### Organizational Citizenship Behavior

This study examined OCB from the standpoint of the employees’ supervisors. The 24-item OCB scale developed by Podsakoff, MacKenzie, Moorman, and Fetter (1990) was utilized to assess five dimensions of OCB proposed by Organ (1988). The results from this research hope to draw inferences about OCB from the five dimensions, which may have different relationships with the predictors. Studies argued that because the five OCB dimensions represented distinct classes of citizenship behavior, they should be analyzed separately. In-role behavior scale was also included in the questionnaire as a control variable so as to isolate variance in OCB measures that was not associated with performance of in-role behaviors (Moorman, Niehoff, & Organ, 1993). This approach was used instead of including in-role behavior in the criterion set because the theory supporting OCB-predictor relationships was not applicable to in-role behaviors; thus in-role behaviors were not expected to be related to the predictors (Williams & Anderson, 1991).

On the basis of previous studies (Morrison, 1994; Williams & Anderson, 1991) both in-role behavior items and OCB items were together submitted to a principal components analysis with varimax rotation ( $N = 385$ ). By doing this, it will lead to a better measurement of OCB since such analysis would clarify whether the respondents differentiated in-role behavior and OCB. This recommendation was strongly supported in other studies (Diefendorff, Brown, Kamin, & Lord, 2002; Moorman, Niehoff, & Organ, 1993; Morrison, 1994; Motowidlo, Borman, & Schmit, 1997; Williams & Anderson, 1991) which found that the boundary between in-role behavior and OCB was ill-defined and varied from one employee to the next and between employees and supervisors (Morrison 1994). The OCB scale comprised of 24 items and in-role behavior scale comprised of seven items. The reliabilities (Cronbach’s alphas) for all the constructs met or exceeded Nunnally and Bernstein (1994) recommended level of 0.70 (refer Table 1). The item ratings were obtained from a 7-point Likert-type ranging from 1 = “Strongly Disagree” to 7 = “Strongly Agree”. The ratings indicated the extent that each of the behaviors was characteristic of the employee’s behavior.

### Individual Innovativeness

Measurement items for innovative behavior were adapted from the work of George and Zhou (2001). This variable was measured by summing the 13-item scale responses and divided the sum by 13 to give a summary indicator of individual innovativeness. Higher scores indicated a higher degree of innovativeness. The responses ranged from 1 = “To the lowest degree” to 7 = “To the highest degree”. The Kaiser-Meyer-Olkin value for the items was 0.96 and the Bartlett’s Test of Sphericity was significant. The results of a scree test supported a one-factor solution. Individual innovativeness yielded one clean factor with an eigenvalue greater than 1 (eigenvalue = 9.44). Principal components analysis conducted on the 13 items revealed a total of 72.64% of the variance. The name “Individual Innovativeness” was retained. The single scale used has a reliability of 0.97.

### **Leader–Member Exchange**

LMX was measured using the 12-item LMX questionnaire that was adapted from Liden and Maslyn (1998). Four dimensions made up LMX: contribution, loyalty, affect, and professional respect. Quality of LMX was looked at from the views of the employees' supervisors. Factor analysis was carried out on the LMX items and one factor emerged with eigenvalues greater than 1.00, explaining a total variance of 57.34%. All of the items were retained. We named this factor "LMX". This factor encompassed all the four dimensions of LMX found in past LMX literature. The coefficient alpha of the scale was 0.93. This is comparable to those reported by Liden and Maslyn (1988) that showed reliability coefficients ranging from 0.80 to 0.92.

### **Results**

A majority of the respondents comprised of 64% females and 36% males. This female bias in terms of percentage representation is indicative of normal gender distribution for these types of employees at the banks in Malaysia. The sample was diverse in terms of ethnicity. The highest number of respondents was Malays (75%), followed by Chinese (11%), Indians (10%), and the remainder (3%) was classified as "others". Most of the employees were married (54%), with 44% still single and 1% separated or divorced. Most employees were relatively young. Most of them were below 30 years old (80%). In terms of educational attainment, 65% received Malaysian Certificate of Education (MCE), 15% achieved their Higher Certificate of Education (HSC), 17% held Diploma certificates, and a very small percentage of them received Bachelor's degree (3%) and Master's degree (0.3%). For the most part, the employees had relatively low formal education. This was not surprising because the positions they held were non-supervisory positions. They did not supervise any employee at their workplace. 43% of the employees have worked in the banks between 1 year to 3 years and 38% have worked between 4 years to 7 years. Majority of the employees (38%) was supervised by their current supervisors for less than 2 years.

A supervisor rated each employee. The total number of supervisors who answered questionnaires on their subordinates was 258. There were several cases where one supervisor had to answer two, three, or four questionnaires about his/her subordinates. These happened because the subordinates chosen to answer the questionnaires were under the current supervision of these same supervisors. There were 29% males and 38% females. 42% of the supervisors were Malays, followed by Chinese (21%), and Indians (4%). Most of the supervisors were married (54%) and 13% still single. Most of them were between 31 years to 40 years old (33%), 16% less than 30 years old, and 17% between 41 years old to 50 years old. In terms of educational attainment, majority had at least a Bachelor's degree (18%), whilst the rest had Diploma (15%), Higher Certificate of Education (HSC) (11%), and Malaysian Certificate of Education (MCE) (21%). Most of the supervisors (48%) have worked in the banks for more than 7 years.

A principal components analysis (PCA), with varimax rotation, was performed separately for items indicating individual innovativeness, LMX, in-role behavior, and OCB variables. Factor analysis was used to summarize the structure of a set of variables. In this study, a sample of 385 more than enough met the desired cases-to-variables ratio for factor analysis (Hair, Anderson, Tatham, & Black, 1998). An examination of correlation matrix in Table 1 indicated a considerable number of correlations exceeding 0.30 and thus the matrix was suitable for factoring (Hair, Anderson, Tatham, & Black, 1998). The Bartlett's Test of Sphericity, measure of sampling adequacy (MSA), and the Kaiser-Meyer-Olkin (KMO) measure were also examined to determine the appropriateness for factor analysis. Assumptions of normality and linearity were satisfied prior to analysis. Variables were found to be normally distributed. No serious outlying cases were detected.

TABLE 1: DESCRIPTIVE STATISTICS, CRONBACH'S COEFFICIENT ALPHA AND ZERO-ORDER CORRELATIONS OF ALL STUDY VARIABLES

VARIABLES	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Individual Innovativeness	4.10	1.05	<b>0.97</b>						
2. Altruism	5.25	1.04	0.46**	<b>0.92</b>					
3. Courtesy	5.28	0.95	0.30**	0.54**	<b>0.82</b>				
4. Civic Virtue	5.16	0.89	0.38**	0.52**	0.59**	<b>0.71</b>			
5. Conscientiousness	5.0	1.11	0.41**	0.53**	0.47**	0.48**	<b>0.62</b>		
6. Sportsmanship	5.30	1.17	0.21**	0.37**	0.50**	0.40**	0.37**	<b>0.89</b>	
7. In-Role Behavior	5.46	0.85	0.44**	0.59**	0.57**	0.58**	0.54**	0.42**	<b>0.90</b>
8. LMX	4.92	0.91	0.58**	0.74**	0.60**	0.61**	0.60**	0.42**	0.66**

Note. *N* = 385; \* *p* < 0.05; \*\* *p* < 0.01; Diagonal entries indicate Cronbach's coefficients alpha ; LMX = Leader-member exchange.

In this research, based on the sample size of 385, the cut-off point for factor loadings of 0.30 and above are retained for further analysis. This is in line with Hair, Anderson, Tatham, and Black (1998) proposal that factor loadings greater than  $\pm 0.30$  are considered to meet the minimum level. Furthermore, Hair, Anderson, Tatham, and Black (1995) proposed that for a sample of 350, a minimum factor loading of 0.30 is required for significance at 5% significance level. When each variable has only one loading on one factor, the interpretation of the factor is considerably simplified. However, there were some instances where one variable loaded on several factors. If items cross-loaded greater than 0.35 (Coakes & Steed, 2003) on more than one factor, the variable was considered for deletion. Once deleted, all variables were again subjected to another run of factor analysis. The ultimate objective is to minimize the number of significant loadings and make each variable associate with only one factor (Hair, Anderson, Tatham, & Black, 1998). Reliability analysis was then conducted on the factors extracted. In line with Nunnally and Bernstein (1994) guidelines, a minimum reliability (Cronbach's alpha) of 0.60 was decided.

Factors with eigenvalues greater than or equal to 1.00 were selected. Twenty-five items loaded cleanly into six factors explaining a total of 68.16% of the variance. All extracted items had factor loadings greater than 0.30. The Kaiser-Meyer-Olkin value for the items was 0.92 and the Bartlett's Test of Sphericity was significant. Principal component factor analysis with varimax rotation revealed six clear factors. A total of six items were deleted due to cross loadings. These items were: three in-role items namely, "He/she neglects aspects of the job he/she is obligated to perform" (reverse-coded), "He/she fails to perform essential duties" (reverse-coded), and "He/she adequately completes assigned duties"; one courtesy item "He/she is aware of how his/her behavior affects other people's jobs"; one civic virtue item "He/she attends functions that helps improve company's image even though his/her attendance is not compulsory", and one conscientiousness items "He/she follows company's rules and regulations even when no one is watching".

Factor 1 included five items, all of them dealing with sportsmanship. Therefore, the label "Sportsmanship" was retained. Reliability was 0.89. A second factor generated by the analysis comprised of five items and was labeled "Altruism" since all the items referred to helping another person. The resultant reliability for this factor was 0.92. The third factor was named "In-role Behavior". It comprised of four items reflecting the formal performance requirements on the job. Its reliability was 0.90. In-role behavior was included only as a control variable throughout

this study. The common thread across the four items in the fourth factor reflected on always consideration to others and not to create problems with them. This factor was named as “Courtesy”. One item, “He/she takes steps to avoid problems with other workers” was dropped so as to increase its coefficient reliability from 0.79 to an improved reliability of 0.82. The fifth factor which was represented by four items was defined as “Civic Virtue”. One item “He/she attends meetings that are not compulsory, but are considered important”–was dropped from the measure to improve the reliability from 0.63 to a stronger reliability of 0.71. The sixth factor was more of an impersonal sort of OCB. In accordance with literature, this three-item factor was labeled “Conscientiousness”. All the items included in this factor displayed conscientiousness and responsibility towards the normal operation of the organization, over and above formal requirements of job duties. A reliability of 0.62 was achieved.

Our findings from Table 1 indicated the results of two hypotheses. Individual innovativeness was found to have significant influence with all the five dimensions of OCB and LMX. Thus, hypothesis 1 and hypothesis 2 were substantiated. It was also found that LMX, which was taken from the perspective of the superior, was positively related to OCB dimensions. Thus, Hypothesis 3 was fully supported. In essence, the results showed that quality of LMX was influential to the subordinates to perform OCB.

## Regression Analyses

To further investigate the relationships among the variables, a series of multiple regression equations, one for each criterion variable, were conducted. In-role variable showed significant influence on the criterion variable (William & Anderson, 1991). For the sake of clarity, only in–role behavior was included in the regression equations as control variable.

Table 2 presents the results of the analyses among variables. *R* squared provides evidence on the variance in the dependent variable (OCB) being explained by the model (Pallant, 2001). Using multiple regression procedure, all five regressions were found to be significant: sportsmanship,  $R^2 = .17$ ; altruism,  $R^2 = .45$ ; courtesy,  $R^2 = .34$ ; civic virtue,  $R^2 = .38$ ; and conscientiousness,  $R^2 = .33$ . Thus, the model explained individual innovativeness as having 17% of the variance in sportsmanship; 45% of the variance in altruism; 34% of the variance in courtesy; 38% of the variance in civic virtue, and 33% of the variance in conscientiousness. Since the sample was sufficiently large, the assumptions of normal distributions were met. The homogeneity and linearity assumptions were met by visually examining the scatter plots of the residuals. The variance inflation factor (VIF) and tolerance value were examined to detect multicollinearity. Tolerance values that are greater than 0.10 and VIF values not exceeding 10 indicate that problem of high multicollinearity are not present (Tabachnick & Fidell, 1996). In Step 2, over and above in-role variable which was included as a control variable in Step 1 of the regression, the predictor for altruism was individual innovativeness. Civic virtue and conscientiousness were also predicted by individual innovativeness. Individual innovativeness was, however, seen to be the more important predictor to altruism than civic virtue and conscientiousness. Individual innovativeness did not predict sportsmanship and courtesy.

TABLE 2: STANDARDIZED MULTIPLE REGRESSION BETA WEIGHTS FOR OCB DIMENSIONS ON INDIVIDUAL INNOVATIVENESS

Variables	<i>Criterion</i>				
	Altruism	Courtesy	Civic Virtue	Conscientiousness	Sportsmanship
<i>Control Variable</i>					
In–role behavior	0.53**	0.55**	0.53**	0.45**	0.07**
<i>Predictor</i>					
Individual innovativeness	<b>0.25**</b>	0.08	<b>0.17**</b>	<b>0.20**</b>	0.06
$R^2$	0.45**	0.34**	0.38**	0.33**	0.17**
$F$	153.27	98.63	115.79	91.48	39.81

Note.  $N = 385$ . \* $p < 0.05$ ; \*\* $p < 0.01$ .

## Testing for Mediation

The test of the hypotheses that LMX mediates the relation between individual innovativeness toward OCB was carried out. Testing for mediation required considering the results of three separate equations. The regression results in which measures of OCB were regressed on individual innovativeness is presented in Table 3. It should be noted that because of the high correlations (Table 1) between in-role behavior and OCB (sportsmanship, altruism, courtesy, civic virtue, and conscientiousness), in-role behavior was first entered into the regression to control the potential bias that might result from autocorrelation effects.

TABLE 3: STANDARDIZED MULTIPLE REGRESSION BETA WEIGHTS FOR OCB DIMENSIONS ON INDIVIDUAL INNOVATIVENESS AND LEADER-MEMBER EXCHANGE

Variables	<i>Criterion</i>						
	SLMX	Altruism		Civic Virtue		Conscientiousness	
<i>Control Variable</i>	<i>Eqn 1</i>	<i>Eqn 2</i>	<i>Eqn 3</i>	<i>Eqn 2</i>	<i>Eqn 3</i>	<i>Eqn 2</i>	<i>Eqn 3</i>
In-role behavior	–	0.53**	0.21**	0.53**	0.31**	0.45**	0.24**
<i>Predictor</i>							
Individual innovativeness	0.59**	0.25**	0.04	0.17**	–0.01	0.20**	0.08
<i>Mediator</i>							
Supervisor leader-member exchange (LMX)	–	–	0.64**	–	0.48**	–	0.40**
<i>R</i> <sup>2</sup>	0.35	0.45	0.65	0.38	0.51	0.33	0.40
<i>F</i>	202.28	153.27	231.47	115.79	129.54	91.48	84.40

Note.  $N = 385$ . \* $p < 0.05$ ; \*\* $p < 0.01$ . LMX = Leader-member exchange.

Using the analytic techniques suggested by Baron and Kenny (1986), the first requirement was to demonstrate that the independent variable (i.e., individual innovativeness) was related to the mediating variable (i.e., LMX). The control variable was entered first in Step 1, followed by the predictor in Step 2.

In order to fulfill the condition for mediation, the second requirement was to regress the criterion variables on the predictor. If the predictor in Equation 1 was also found to be significant in Equation 2, the test for the mediation effect (Equation 3) was carried out. As evidenced from Table 3, individual innovativeness fulfilled the requirements for mediated regression (Baron & Kenny, 1986) on altruism, civic virtue, and conscientiousness. Hypothesis 4 was thus partially supported. It was found that LMX fully mediated the relationships between individual innovativeness and altruism; individual innovativeness and civic virtue, and individual innovativeness and conscientiousness in such a way that the direct effects of individual innovativeness on OCB decrease and become insignificant after LMX is considered. LMX did not mediate the relationships between individual innovativeness and courtesy and sportsmanship.

Results showed that individual innovativeness predicted altruism, civic virtue, and conscientiousness. Employees who are high on openness to change have an appreciation of the merits of new ways of doing things and the potential for improving and changing the status quo (George & Zhou, 2001). The willingness for employees to change leads them to want to perform OCB. They feel open towards wanting to help people around them—their colleagues, subordinates, and superiors. They try to prevent work-related interpersonal problems and they do things that benefit the organization (e.g., being punctual, obeying rules).

One concern that might be raised, however, is the correlation between individual innovativeness and OCB. Some researchers may argue that both these constructs are one and the same. To help allay this concern, we would make three points. First, the measures used for individual innovativeness (George & Zhou, 2001) are related to the willingness of employees to change, whereas the measures for OCB (Podsakoff, MacKenzie, Moorman, & Fetter,

1990) reflect items on the behavior of employees at work. Individual innovativeness is described as an inert quality within a person. One can be innovative and not express this innovativeness or one can express this innovativeness. One of the avenues of expression is through OCB. Second, the zero-order correlations (Table 1) show that individual innovativeness and OCB are correlated with one another: with sportsmanship, altruism, courtesy, civic virtue, and conscientiousness. Although the correlations between them are significant, they are related at a level where they can be treated as independent from one another. Third, when we conducted regression analyses between individual innovativeness and OCB, we see that individual innovativeness directly predicts altruism, civic virtue, and conscientiousness. Being innovative makes the individual have the effect of helping specific other person (altruism), carry out roles well beyond the minimum required levels such as not taking long breaks than necessary (conscientiousness), and participates in the political life of the organization such as attending meetings, voting, speaking up, and discussing issues on personal time (civic virtue). Individual innovativeness does not however predict sportsmanship and courtesy. From the results of the findings, being innovative does not make an individual “touching base” with others whose work would be affected by one’s decisions or commitments (Organ, 1988). Innovativeness does not relate to the OCB dimension of courtesy such as giving advance notices, reminders, passing along information, consultation, and briefings to others. Innovativeness also does not relate to sportsmanship such as avoid complaining and petty grievances.

LMX mediates the relationships between individual innovativeness and altruism, civic virtue, and conscientiousness. When employees see the presence of LMX at the workplace, feeling of confidence is felt in terms of their appearance, ability, and power (Buss, 2001). When employees are satisfied and happy with their interactions with their supervisors, they feel self-worthy of themselves which may be described as the issue of character (Buss, 2001). Through good leader–member exchange between employees and supervisors, employees who are innovative are willing to perform OCB at their workplace.

## **Limitation**

Several aspects of this research pose limitations to its power and generalizability. This study measures perceptions at a single moment of time. It does not speak to dynamics over time. We should improve our knowledge about the importance of OCB (Cohen-Charash & Spector, 2001). Although we may have a wealth of information concerning correlates of OCB, we need studies that address causal relations. These include quasi-experiments and field experiments as well as longitudinal studies. Admittedly, it would have been ideal to gather such evidence to determine the longer term behavioral effects of individual innovativeness manipulation.

Data were obtained from non-supervisory employees in the domestic commercial banks. Consequently, the extent to which the findings reported here are generalizable to members of other types of banks (e.g., merchant banks, finance companies) in Malaysia cannot be ascertained.

A further reservation about the data concerns anonymity. At the survey sites it was necessary to leave the survey for respondents to complete and turn in to a designated bank’s representative. Some respondents may have felt less confident that their answers would be anonymous although envelopes were enclosed for them to place the questionnaire and seal.

## **Conclusion**

The purpose of this study is to provide an understanding of OCB and its relevant correlates for practitioners, academicians, and researchers, by exploring whether OCB has an important role in contributing towards organizational effectiveness. Findings suggest that individual innovativeness predicts three dimensions of OCB. Thus, the perspective offered in this study poses a direct challenge to one of the main assumptions underlying much of OCB research, which is, there is a need to promote employees’ innovativeness. Although trying to detect individual innovativeness in a natural work context is a complex and difficult task because it is often difficult to validate, the fact that organizations face increasingly turbulent environments, the need for this kind of research is ever increasing.

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# Motivation and Performance

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## Abstract

Motivation theory attempts to explain why people behave in the way they do. It is crucial to management's success to find the link between motivation theory and practice, to successfully implement motivation theory. To implement the theory into the practice the managers have to know what motivation is, what causes the motivation and what influences the motivation of people. Motivation cannot be reviewed as a single variable. A number of other significant factors within the organization influence the performance of an individual, not only the motivation. We need to see the interdependence of motivation and other factors, especially when these factors can multiply or nullify the contribution of motivation to performance. In the article are discussed the Model of factors influencing the individual performance, job motivation programs including compensation programs and non-monetary motivation programs, causes of job satisfaction and dissatisfaction and the punishment and discipline in organizations.

## Introduction

Motivation theories attempt to explain why people behave in a certain way. It is crucial for manager's success to successfully implement the motivational theories into practice. To implement the theory into the practice managers have to know what is motivation, what causes the motivation and how influences the motivation the performance of employees.

Motivation cannot be viewed as a single variable that influences the performance. A number of other significant factors influence the performance of individual. Manager has to see the interdependence between the motivation and other factors, especially if these factors multiply or nullify the impact of motivation on performance.

There is a need to distinguish between the two different types of performance:

- In-role performance – performance required by the job description, the employee is actually paid for it and is enforceable by the employer to a significant extent;
- Extra-role performance – performance not required by the system, interpreted as a social behavior of employees because of interactions and interdependence of people within the organization.

### **In-role Performance**

Manager willing to influence the performance of employees through motivation has to know two basic aspects of motivation. First it is difficult to measure the motivation. Manager can more or less precisely measure the performance of employee, but it is not always clear what causes the level of performance. Is it the motivation or other factor mentioned in the following model? Manager should be aware of over motivating people. Motivation to a certain limit could increase the performance but over this limit employee pays too much attention to his work. He puts too much physical and psychological effort to his work and after a period of time he feels exhausted and tired. The final result of over motivation is decrease in performance.

Performance at work does not depend just on motivation. To see the difficulties of implementing the motivation theories it is necessary to discuss important factors in the performance model. Change in other factors than motivation can lead to a higher increase in performance.

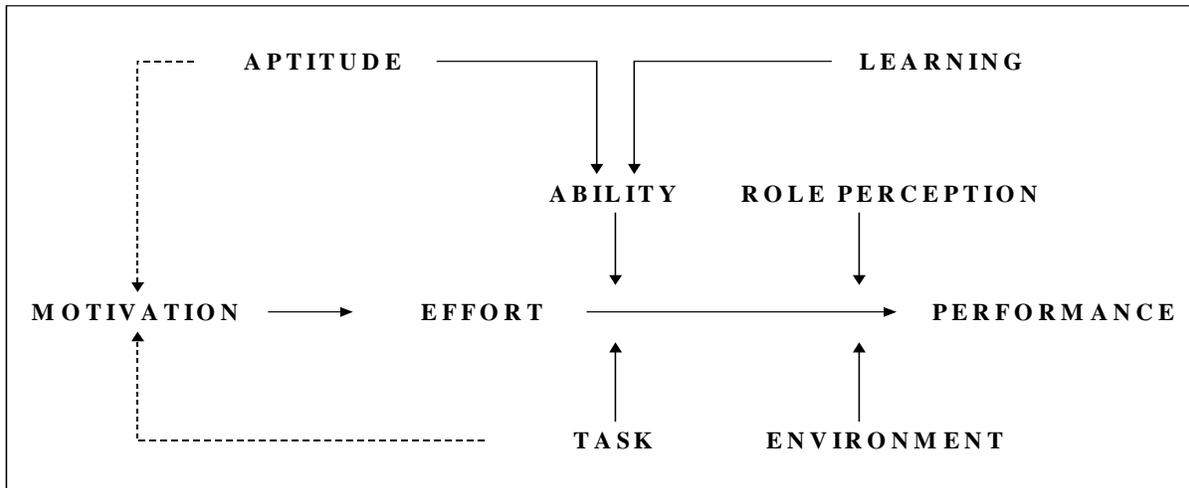


FIG.1 FACTORS UNDERLYING THE INDIVIDUAL PERFORMANCE

**Task (Task Design)**

Based on the Herzberg's hygiene theory, task itself influences the motivation through satisfaction or dissatisfaction of psychological needs of employee. High frequency of simple tasks negatively affects employee. He can build up resistance to these tasks and his motivation decreases. In this situation change in job duties can be undertaken. Manager can change design, method or sequence of work. He can also apply job enrichment program. Job enrichment strengthens such motivational factors as responsibility or recognition.

**Ability**

If motivation determines the quantity of effort, ability of employee then determines the quality of effort. Ability is the result of aptitude and learning. Learning process contributes to employee's ability of mastering different tasks and increases employee ability. Usual example of learning in organization is training program. Aptitude refers to individual differences in the facility of learning and mastering a task. Some aptitudes are related to general intelligence (e.g. logic, abstract reasoning), others are related to physical and motor skills (e.g. hand-eye coordination). Every employee comes to the organization with his individual level of ability. The task of the human resource department is to attract people with the highest level of skills relevant for the job. These people are expected to perform well and to master difficult tasks in the organization.

**Environment**

Physical environment also influences the performance of employee. The most significant variables of physical environment are noise and heat. Noise acts as a stressor. Up to some limit noise increases the performance because of overall energizing effect. Over this level noise effects performance negatively. The highest performance is achieved at standard temperature. Changing the standard temperature in both directions decreases the performance. Other factors of physical environment are quality of lightning, work space, special design tools. The effect of environment on performance is higher in jobs demanding strong concentration and in jobs with long working hours.

**Role Perceptions**

In the Maslow's hierarchy social needs are on the third level above the security and basic physical needs and under ego and self-esteem needs. Role perception is the understanding of employee's role in the organization. Employee wants to be also a member of the team. Therefore he has to understand his role in the organization and in the team. If

this condition is not fulfilled, employee's social needs are not accomplished and his motivation decreases. Potential breakdowns in role perception are:

- Role ambiguity – employee does not know what other's expectations are, he is not sure what to do, what is his role;
- Role conflict – employee is caught between parties with opposite demands, he wants to satisfy both parties, but he can not;
- Wrong role perception – employee misunderstands his role.

The best way to avoid non-satisfaction is to tell the employee exactly what the manager wants him to do, where he belongs, what is his role.

#### **Extra-role Performance**

Extra-role performance includes the concept of organizational citizenship behavior (OCB). That means the social interactions and interdependence of people within the organization. It serves to accomplishment of social needs, the need of affiliation, generally said the social needs. OCB consists of contributions that are not enforceable requirements of the job.

- Willingness to help – e.g. telling the newly hired colleague important information;
- Courtesy – effort to prevent problem from occurring, e.g. when undertaking special tasks telling the involved parties in advance;
- Sportsmanship – the way of dealing with stress and frustration;
- Involvement – be involvement in the processes, offering opinions, suggestions, communicating with others;
- Respect to rules and policies of organization – attendance, punctuality, etc.

### **Job Motivation Programs**

Motivation could be characterized as the motive power, which supports in employee certain activity to satisfy his needs (*Bajzikova, 1999, p. 10*). Motivation could be extrinsic and intrinsic. Intrinsic motivation originates from the relationship between the employee and his work. Examples of intrinsic motivation factors are responsibility, liberty, action, chance to use his abilities and competences, respect at the workplace, interesting and demanding job, chance for career advancement and others. Extrinsic motivation originates in the external environment and is stimulated by a certain person (manager). Examples of extrinsic motivation are financial compensation, compliments, promotion, as well as punishment, criticism, decrease of bonuses, etc. (*Bajzikova et al., 2004, p. 159*).

To put the motivational theory into practice, job motivation programs are implemented. These programs try to enlarge motivation of employees focusing on their needs. Motivation programs are usually divided into two categories, compensation programs focusing on financial aspects and non-monetary programs that use other than financial motivators.

#### **Financial Motivation Programs**

This kind of programs is used primarily in less developed countries or organizations and on lower job levels, where people work to satisfy their physiological needs, as clothing, food, and housing. These needs are usually satisfied through adequate wage. In Slovak republic, people listed out of 16 goals they want to satisfy mostly by their work these goals on the top five places: wage, security, recognition, relationships to subordinates, contribution to society (*Ruiz Quintanilla, 1992, p. 22-24*). The author of this research made a conclusion that financial motivation plans would work in Slovakia well. Although we quoted quite an old research, we can say, that financial compensation is still very important work goal for Slovak employees and plays in their motivation a very important role.

For motivational purposes a good compensation program has to accomplish these three objectives:

1. Establish standard level of pay high enough to meet market rates – this satisfies the purpose to attract sufficient number of qualified applicants for various jobs.

2. Provide internal equity – this should assure that employees believe they are paid fairly for their competitive input. Employee establishes his own input-outcome ratio and then compares the results of his ratio to ratio of other employees. When the results are similar, this means that for the same contribution (input) he receives

the same wage (outcome), employee's sense of fairness is satisfied. If not, motivation decreases and the result is even lower performance or lower quality.

To establish equity a job evaluation program has been developed. It comes with the idea of comparable worth. Every job is evaluated on contribution to organization, skills needed for this job, education needed for this job, etc. Jobs that score the same should be similarly compensated.

3. Provide incremental rewards for above-average performers – this motivates people to act actively in work, to perform above average. Examples of such reward systems are:

- Piecework – amount of money for each unit of output;
- Bonus plan – standard hourly wage plus pay increments for productivity beyond the norm;
- Merit pay – based on measurements of individual contribution.

Newer reward systems provide higher efficiency:

- Skill based pay – the better skills the bigger wage;
- Profit sharing plans – involve employees on higher productivity through giving them percentage of organization's profits.

#### **Non-Financial Motivation Programs**

These programs focus not on physiological needs of employees, but they focus on higher needs on the human needs scale. They actually emphasize ego, self-esteem and growth needs of an employee. The mostly used programs are organizational behavior modification, job redesign and management by objectives.

#### **Organizational Behavior Modification (OBM)**

This program uses positive reinforcement. Reinforcement theory is based on the premise that rewarded behavior is likely to be repeated while behavior that has been punished is less likely to recur. OBM is a process focused on maintaining certain behavior and diminishing the occurrence of undesirable behavior. The process of OBM implementation consists of following steps:

- Precise definition what is the target behavior;
- Baseline audit – exploring the frequency of behavior's occurrence before reinforcement;
- Setting of criteria – setting the frequency of target behavior that the organization wants to achieve;
- Choosing a reinforce – usually it is praise coupled with positive feedback, e.g. improvements posted on wall, points that could be accumulated and exchanged for merchandise;
- Shaping stage – step by step process till the goal is reached, it is important to reinforce any improvement that leads closer to the goal.

Disadvantage of the OBM is the decrease of target behavior after the reinforcement stops. It can be successfully applied only to work behavior that can be precisely defined, quantitatively measured and frequently repeated.

#### **Job Redesign**

In addition to Herzberg's job enrichment theory, jobs can be redesigned also based on important job characteristics that influence the psychological state of employee. Important job redesign strategies are (*Rudy et al., 2001, p. 118-122*):

- Job specialization;
- Job enrichment;
- Job rotation;
- Job enlargement;
- Teamwork organization.

The basic job characteristics are: skill variety, task identity, task significance, autonomy and feedback. First three of them lead to employee's sense of meaningfulness of the job. Autonomy leads to feeling of responsibility and feedback is significant for the knowledge of results. Giving the employee job that score high in all these five characteristics, employee's psychological needs are satisfied. The outcome is intrinsic job motivation and work satisfaction.

#### **Management by Objectives (MBO)**

Management by objectives underlines the requirement of clearly defined objectives that are integrated across levels.

This program shows the necessity of collaboration between managers on vertical level (subordinate-superior). MBO follows this sequence of events:

- Definition of objective – subordinate creates a written statement specifying objectives for the next period
- Review – superior manager reviews the statement and discusses his view of objectives for the period with subordinate, discussion might lead to modification of the statement;
- Progress discussion – superior and subordinate meet on regular bases during the period and discuss problems and try to find solutions
- Performance discussion – at the end of given period they discuss the extent of achieved objectives regarding also the development in the external environment and whether the goals were set realistically.

MBO programs are implemented mostly among managers. They also force managers to set measurable objectives. Another handicap is the amount of paperwork connected with the statements creation.

## Job Satisfaction and Dissatisfaction

One criterion of the quality of motivation theory application in practice is the level of employee satisfaction. The level of the job satisfaction is important because of several reasons:

- The first is the fact that people spend a sizable portion of their lives at work. From the humanitarian point of view it is desirable that the time should be more-less pleasant;
- Secondly job satisfaction is closely connected with mental and physical health of the employee. The studies show that employee's overall view of the job satisfaction influences the length of his life and opinion about its quality.

Job satisfaction represents the attitude toward the job. It is the function of the employee's beliefs, feelings and behavior tendencies. Job satisfaction is measured by standardized attitude or opinion surveys. The major determinants of job satisfaction are usually income, autonomy and intrinsic psychological rewards.

Based on the Herzberg's theory job satisfaction and dissatisfaction are not mirror opposites, nor are they caused by the opposite things. His theory was a subject to the criticism. However subsequent findings give some support to the theory and based on these a model that defines four categories of satisfaction and dissatisfaction was created.

The satisfied – dissatisfied dimension is defined by whether the employee's job attitudes are generally positive or negative. The active – passive distinction refers to the frequency with which the attitude is aroused and actually becomes the force on job behavior.

TABLE.1 MODEL OF SATISFACTION AND DISSATISFACTION BEHAVIOR

	Satisfied	Dissatisfied
Active	I	IV
Passive	II	III

I – those who enjoy what they do and are intensely involved;

II – those who are with current conditions satisfied;

III – those who are not sufficiently involved to present even the mild protest;

IV – those who voice their problems, lead the way to union activity, even sabotage.

Job attitudes predict with some reliability the extent of turnover (based on the social and corporate culture and level of unemployment), absenteeism (attitudes toward co-workers, supervision and benefits) and union activity. Job satisfaction influences the productivity as well. Unfortunately, it is not true that the higher is the job satisfaction the higher is the productivity level. There are two reasons for this:

- Many jobs don't lend themselves to objective, concrete performance measures;
- Individual performance level simply cannot vary to the great extent.

## **Punishment and Discipline in Organization**

Extended discussion about the job satisfaction illustrates the methods of achieving the desired behavior, but overlooks the fact that organization has to eliminate the undesired behavior, to use punishment and this is done quite often.

Punishment occurs if an aversive consequence follows a response. Some opinions say that punishment should not be used, but generally it is not possible to avoid the usage of punishment in the practice. To replace the punishment there are several suggestions what to use instead of it: the extinction, environmental engineering, rewarding of desirable or neutral behavior and finally the adjustment, development or maturation. Another view is that punishment is natural, because all the nature punishes us, furthermore we usually learn rather quickly and without emotional scars.

To punish effectively there are some conditions managers have to fulfill:

- Punishment is more effective, if it is applied before an undesired response has been allowed to gain the strength;
- Other things being equal, punishment is generally more effective when it is relatively intense and quick;
- Punishment should focus on specific act, not on the person or on general patterns of behavior;
- Punishment should be consistent across persons and across time;
- Punishment should have informational value;
- Punishment is most effective when it occurs in the context of a warm or nurtured relationship.

It is necessary to understand that the punishment has to be always based on certain rules – discipline. Discipline is a deliberate attempt to punish. It becomes very important for the administration to provide in advance clear and persuasive reasons why certain rules exist and why certain behavior cannot be tolerated. The rules that have to be followed depend on the personality of manager: pure humanitarian, pure legalistic or more clinical or judicial approach.

## **Conclusion**

Performance of an employee is influenced by a variety of factors that have been described in the Model of factors influencing the individual performance. Motivation is only one of these factors. The other important factors are task, ability, environment and role perception. Two basic types of motivation programs are financial and non-financial. Financial motivation programs function in situations, when employee is focused on satisfaction of his basic physiological and security needs (lower positions, less developed countries). The non-financial motivation programs function well if employee wants to satisfy his higher needs on the Maslow's hierarchy of needs (esteem and self-actualization needs). The empirical evidence shows, that financial motivation programs function well in lower positions (manual workers, sales representatives), the mix of financial and the non-financial motivation programs starts functioning well in the middle positions (middle management, professional workers) and non-financial motivations programs function well in higher positions (senior management, top scientists and top professionals) in Slovak republic. The financial motivation programs are basically based on money. The non-financial motivation programs described in this article are: organizational behavior modification, job redesign and management by objectives. In case when positive motivation is not enough to eliminate the undesired behavior, the manager might use punishment. Punishment is connected with discipline, which should be based on a set of rules saying which behavior cannot be tolerated in organization and why.

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# Outsourcing of Goods and Services Practices: Human Resources Management Issues

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## Abstract

The paper reviewed the nature of outsourcing and the impact of outsourcing decisions on employees against the objective of achieving value for money throughout the life of a contract. The value for money concept was discussed in light of a revised definition arising from recent research outcomes. Human resources issues were considered also in the context of the purchaser-provider separation, the level playing field and changing nature of industry and the public service. Examples were provided to illustrate some of the key issues.

## Introduction

The decision to outsource non-core of goods and services was part of the strategic decision of many private companies and government organisations. Through the market testing process, jobs performed by employees may be targeted for outsourcing. The purpose of this paper was to consider some of the human resources management issues arising from outsourcing in the context of value for money in outsourcing.

Competitive Tendering and Contracting (CTC) also known as Outsourcing, was a form of contracting-out and was defined as the “the process whereby activities traditionally carried out internally are contracted out to external providers” (Domberger, S 1998, p. 12)

Quiggin (1996, p. 173) commented that “at first, moves towards contracting out were seen primarily as bringing the public sector in line with the standard practices of large private business enterprises. Private businesses generally had been more willing than the public sector to contract out peripheral activities such as cleaning or the provision of car fleets. This tendency, frequently referred to as ‘outsourcing’ has increased in the private sector over time. A typical slogan of this phase of contracting out was ‘sticking to the knitting’; that is, focusing on core activities rather than seeking to do everything more or less badly. These views were supported by Domberger (1998) and others (Cook 1994; Department of Defence 2002a).

The handling of employment issues in outsourcing can become one of the key issues in the decision to outsource and, often, involved a great deal of complexity.

## Human Resources Issues

The affect of outsourcing on employees had the potential to negatively impact on the workforce, families and industrial relations, if not handled carefully. Staff could be affected through redeployment elsewhere in the agency, transfer to another agency, negotiated transfer to the contractor, or redundancy (Domberger, S 1998). Cost cutting was a most important factor in outsourcing and reducing staff often became a very definite goal (Birmingham 1994). Further, human capital input to the provision of services was an important consideration in determining effects on cost and quality of output (Borland 1994).

Quiggin (1996, p. 186) pointed out that outsourcing was driven “by the desire to cut costs of service provision, frequently at the expense of employees,” which was branded the “privatization of labor” (Clark & Corbett 1999, p. 80) . Further, Quiggin (1996) argued that transfers of labor, leading to lower wages and conditions, did not contribute to the economy as a whole; a view supported by Clark and Corett (1999) and the Industry Commission (1996). Clark and Corbett (1999, p. 92) considered that “the contribution that the public sector makes to local and regional economies, through employment and the ‘multiplier effect’ of public sector spending, is often unacknowledged”.

Employees needed to be supported during outsourcing activities (Domberger, S 1998; Industry Commission 1996; US General Accounting Office 2003). For instance, employee issues were of prime importance in outsourcing activities in a State Government department, where a set of guidelines was developed to assist employees in the outsourcing process<sup>1</sup>.

Issues relating to employee positions targeted for outsourcing included:

- Accepting lower wages and conditions, which made no contribution to the economy as whole (CTC Research 1996a; Quiggin 1996) nevertheless, there were examples of higher wages (CTC Research 1996b). The issue was identified of “two-tier workforces arising when public services are contracted out under regulations that broadly protect the terms and conditions of workers transferred; but the regulations do not protect new staff, who can be hired on worse conditions, resulting in two-tier, and even multi-tier, workforces” (Nicholas 2001, p. 27).
- The Industry Commission (1996, p. 159) lent weight to the argument that “savings derived from outsourcing are achieved mainly at the expense of employees, primarily through job loss and reductions in wages and conditions. Others disagree with that view”
- The issues of outsourcing and the effects on employment were not always understood as Domberger (1998, p. 172) observed, viz. “the employees directly affected by contracting may be those who bear the greatest cost, faced disruption to their current activities, uncertainty about future job prospects, and possibly a worsening of terms of employment, which had the potential to arrest the contracting process in its tracks, particularly if it is met with union opposition”.
- Domberger and Hall (1995, p. 8) in addressing the concerns about transfer of employees from the public to the private sector in outsourcing, indicated the concerns were “much exaggerated”, based on outcomes of their studies, nevertheless, costs may be higher “because they were not previously monitored”. The Betts case<sup>2</sup> provided a stronger position to avoid taking overstaff from an existing contractor (Davies 1997) and whether the effects of this case would eventually impact on transfer of employees during outsourcing in Australia remains to be seen; however, Australia traditionally has followed the U.K. in outsourcing privatization.
- As mentioned, some contracts stipulate the number of agency staff that must be taken on by the winning tender (Domberger, S 1998) and under the Department of Defence Commercial Support Program, in the evaluation of offers tenderers could be penalized for the number of agency staff not contracted (Department of Defence 2003). There was also a moratorium of one year placed on the contractor employing those who opt to take redundancy (Department of Defence 2002a) to avoid, as The Industry Commission stated double dipping (i.e. taking redundancy package and then joining the contractor), which it viewed as “inequitable and should be prevented” (Industry Commission 1996, p. 391). The Senate Finance and Public Administration References Committee (2001) supported the “clean break” approach.
- The background to outsourcing in relation to human capital was examined by Hanson and Sarros (2001) who pointed out that “organizations are increasingly using outsourced workers to create a variety of efficiencies ... [thus] ... displacing risk to outside entities ... and reducing the size of their own bureaucracies” (Hanson & Sarros 2001, p. 5).
- Hanson and Sarros (2001) indicated the ‘tenured employment model’ was not sustainable in outsourcing because of improved efficiency and flexibility within areas of labor specialization.

The importance of keeping staff fully informed during the contracting process was emphasized by Domberger (1998) who indicated it was part of all contracting guides and manuals. The case study discussed in Table 9, illustrated this.

TABLE 1. CASE STUDY – OUTSOURCING

**Case Study**

A government agency considered outsourcing editorial services for its technical journal publications, the multi-media services associated with its publications, photographic services (micro and macro) and other services.

During this period a coordinating committee was established to facilitate communication with all stakeholders, including the employees and union. Ethical guidelines were drawn up for employees affected, advising them how to handle approaches from tenderers for employment and other information.

A set of ethical guidelines was drafted to guide employees when contacted by bidders and asked to provide information and opinions.

The contracting process involved an in-house bid and a management buy-out (MBO) proposal.

The result was that editorial and multi-media services were outsourced and photographic services were sold to an MBO. Eventually it was decided not to outsource the other services.

(The current researcher was directly involved in these processes and was later invited by the agency to assist both the in-house and MBO bid teams prepare their offers.)

Source: Personal experience of the current researcher

The US General Accounting Office (2003, p. 10) considered that it was “not the size of the in-house or contractor workforce or the number of positions competed to meet arbitrary quotas” that provided value for money to the taxpayer. The Australian Department of Defence (2003) on the other hand, viewed the size of the contractor workforce as important, whereby the tenderer incurred penalties against its bid prices for the cost of those offered for employment but not potentially employed. Meeting quotas for positions that were market tested was important in the Defence CSP program (Department of Defence 2002a).

The issues relating to employees in outsourcing extended to the contracting process. The US General Accounting Office (2003, p. 5) raised several issues pertinent to employees affected by outsourcing, which had validity in outsourcing activities generally and which could impact on value for money outcomes, viz.:

- the need for agencies “to maintain capacity to manage outsourcing competition, preparation of in-house bids and overseeing outsourcing activities, regardless of whether an external or in-house solution is selected”;
- the need for employees “to be assisted during outsourcing activities, namely:
  - what is happening and when during the transition process;
  - improving skills for in-house bidding and monitoring performance;
  - managing the issues of redeployment, severance and transfer;
  - facilitating transference to a private contracting environment; and
  - employee retention programs aimed at keeping employees”.

Employee issues could determine whether outsourcing proceeded or not, because, according to Domberger (1998, p. 172) “financial and intangible costs associated with employment can place contracting in the balance” and considered the extremes of abandonment altogether due to “internal and external opposition ... [or interpretation being] ... less successful” due to a non-cooperative attitude of staff”.

Employment issues associated with outsourcing were taking on a global dimension whilst becoming more visible in Australia with Telstra considering outsourcing some its service development to India, for example. Glass and Saggi (2001, p. 67) considered the effects of increased outsourcing of production to low wage countries and concluded that “increased international outsourcing lowers the relative wage ... [and aggregate spending] ..., a negative level effect” and indicated “increased international outsourcing fuels the rate of innovation leading to faster arrival of product improvements, a positive growth effect”. Transfer of technology from developed countries to

lesser developed countries could result in benefits derived from increased demand and lesser developed countries also benefited from vertical international outsourcing and reduced the double marginalization problem; i.e. the amount of surplus that could be bargained between labor and firms (Pack & Saggi 2001; Zhao 2001). The issues relating to global outsourcing and employment, were not considered in this paper.

Subsidiary issues concerned the justification of awarding outsourcing contracts to overseas-based companies which expatriated profits overseas. The argument was that companies registration with the Australian Security and Investment Commission (ASIC) qualified as an Australian company and as such could not be discriminated against in the contracting process<sup>3</sup> because it paid Pay As You Earn tax, company and other taxes and employed local people in its Australian based operations. Quiggin (1996) has raised such issues in relation to the overall economic impact of outsourcing and value for money outcomes.

Nevertheless, the Australian Department of Defence, Commercial Support Program tender evaluation methodology positively discriminates against outsourcing companies that do not take on the workforce displaced through the award of outsourcing contracts, by loading their bid with the costs of those not employed.

## **Value for Money**

The first phases of the procurement cycle involved planning and formation of the outsourcing contract, leading to the choice of a service provider. The selection of service provider could involve consideration of employees occupying positions within the organisation which would no longer be retained under outsourcing. Following contract award, the subsequent phase involved management of the contract through-life. The aim was to achieve the best value for money outcomes during all phases during the contract cycle.

The value for money concept was well established as a basic principle in outsourcing procurement in Australia and other Commonwealth countries and originated from the United Kingdom. Traditional definitions of value for money include, for example:

- The optimum combination of whole of life costs and quality (UK National Audit Office 2001, p. 3).
- “Achieving the best outcome for every dollar spent by assessing both the costs and benefits of each purchase rather than simply focusing the evaluation of offers on the lowest purchase price alone” (State Supply Commission 2000, p 5).
- “A procurement concept which requires objective consideration of all factors contributing to the utility, usability and usefulness of items offered for sale as inputs to a procurement decision, rather than automatic choice of the suitable item having the lowest purchase price” (Department of Defence 2002b, Chapter 1.1).

A revised definition of value for money emerged from the recent research (Mahony 2004), namely:

Value for money is the purchasing principle, absolute standard and objective of the procurement process, providing the primary basis for procurement policy formulation and manifesting itself as a qualitative measure in tender evaluation process and price consideration.

The consideration of options, during the evaluation period, relating to employees, namely redundancy, redeployment or transfer to the service provider can impact on value for money. Industrial action, for example may present an immovable barrier to outsourcing. Redundancy involves not only a cost the organisation, but may involve the broader costs social welfare payments, for example.

The options for treatment of employees in outsourcing is driven to some extent by the views of the purchaser/provider separation or split.

## **Purchaser/Provider Separation**

The separation of purchaser from provider was a form of specialization with “separation of the client from the vendor ... [and] ... the purchaser from provider, purchaser focus on output and outcomes ... [with] ... provider focus on inputs, processes and effective, but flexible, interface between the parties, underpinned by a contract”(Domberger, S 1998, p. 47; Productivity Commission 2003, p. 3.2). The Commonwealth Productivity

Commission endorsed the purchaser/provider model for outsourcing with the objective of achieving better value for money (Cox, Wendell 2002).

Under the purchaser/provider separation two organizations replaced one; organizational accounts were split and there was a sharper focus on “cost of resources across organizational boundaries” (Domberger, S 1998, p. 47) output specifications were developed that did not previously exist, contracts defined the terms of the transaction and firms concentrate on ‘core’ business; he also considered this as one way of contracting that reduced the cost of outsourcing.

The purchaser/provider model “preserves public funding for the service but creates incentives for efficiency and innovation by requiring both in-house and private operators to bid for the right to operate services – systems are tendered to multiple operators to bid for the right to operate services” (Cox, A 2001, p. xx). O’Faircheallaigh et al.(1999) agreed with Cox. In Australia this model works within the National Competition Policy (O’Faircheallaigh, Wanna & Weller 1999) discussed below.

Domberger (1998) in emphasizing the separation of the purchaser and provider indicated it was not normal or traditional for services to be provided in-house, which differed with the explanation provided by Cox (2001) above in respect to in-house service providers operating under the outsourcing regime. Delivery of services also required experience, possibly comprising many functions and was not the responsibility of a single agency, where demand could be highly uneven over time and where the purchaser/provider split existed (Domberger, S 1998; O’Faircheallaigh, Wanna & Weller 1999).

A contrary view was expressed by Miranda and Lerner (1995 cited in O’Faircheallaigh et al. 1999, p166) referring to studies undertaken for government outsourcing in the United States “that simply transferring a service from the public to private sector is unlikely to yield improvements in quality or cost savings if new private supplier is, like the public one it has replaced, in a monopoly position” (State Supply Commission 2001). Domberger (1998) considered the issue of ‘natural monopoly characteristics’ i.e. there was only one service provider at any one time. Community organizations or private firms can become service providers for government agencies and Domberger (1998, p. 174) observed an increase use of ‘private not-for-profit’ organizations as service providers in order to get more value for money.

One of the on-going issues relating to the purchaser/provider model which was seen as a barrier was that of the concept of the level playing field, arising from market testing.

#### **Level Playing Field**

Market testing involved the issues of the level playing field and competitive neutrality. The concept was that in-house bids, when competing against private sector providers, were costed and evaluated on exactly the same price basis.

The options allowing in-house bids in outsourcing impacted on value for money and employees undertaking service functions in the outsourcing agency were permitted to bid, on a competitive neutrality basis, against external service providers for the outsourcing contract as part of market testing. A number of issues arose from these, considerations, which were summarized by The Industry Commission (Industry Commission 1996, section C5.3) viz.:

- the potential benefits and costs [was a key consideration];
- appropriate framework [must be established] under which they should operate;
- agencies [must provide] an appropriate competitive neutrality framework;
- the organizational structure within which the in-house team operates [must include] formal separation from service regulation and specification and tender evaluation;
- [must be operated separately] from all aspects of contract management; and
- [must be] subject to monitoring and reporting arrangements to ensure that the agreed price and performance standards are achieved.

Many practitioners were skeptical about the so called ‘level playing field’ in contracting out, both in respect of public and private sector competition, and particularly the in-house bid, (Baueris 1993; Industry Commission 1996). The case study, Table 2, illustrated some of the difficulties regarding in-house bids where “it is essential that a selection procedure is implemented ... that is seen to avoid conflict of interest and contains some measure of

external independence” (Domberger, S 1998). The evaluation also extends to the methodology adopted for evaluating offers, which was often traditional (State Supply Commission 2003) and did not always consider the economic costs involved, particularly relating to human resources. This was exacerbated by the focus on internal reform within organizations and government, particularly outsourcing of non-core business.

## Changing Nature of Industry & Public Service

The changing nature of government, for example, has affected in various ways the achievement of value for money in outsourcing. Corporatisation, convergence and governance all impact in some way on value for money in outsourcing (Domberger, S 1998; Sozzani 2001; US General Accounting Office 2003). The importance of this stemmed from the trend towards privatization and adopting ‘commercial principles’ for government procurement wherein contracts were perceived to be more efficient and cost effective than in-house provider options (Domberger, S 1998). These considerations impact on the employee issues and decisions of how to treat employees as was mentioned above.

### Changing Nature of Australian Industry

The nature of changes in government and procurement methods has resulted in challenges to the traditional views of value for money. Consider an Australian example.

TABLE 2 RESTRUCTURING AUSTRALIAN INDUSTRY (AN EXAMPLE)

Restructuring of Australian industry has impacted on some major capital acquisition projects and outsourcing of major services and this was most evident in the Defence sector. Major industry changes were identified in the prime-contractor and second-tier subcontractor hierarchy, wherein many key second-tier contractors were taken over by prime contractors, effectively removing the second tier of competition from the market. This has left a Prime-third tier structure. The growth of companies like Serco, Transfield and British Aerospace in Australia, has been based on managing outsourcing contracts as a core strategic business activity. Examples included the take-over by Transfield Australia of the AMECON<sup>4</sup> (the ANZAC Frigate Prime) consortium members (ICAL, Eglo Engineering and Australian Shipbuilding Industries) and the acquisition of Stanilite (Defence communications experts) by AMECON and absorption into the Australian Defence ANZAC Frigate Project. The sale of the Commonwealth owned Defence contracting organization, ADI Limited, to Transfield and Thales (i.e. Thompson CSF) in 1999 changed the balance of Defence prime contracting in Australia (ADI Limited 1999). In addition, the entry into the market of major overseas primes, e.g. Boeing Defence, has also contributed to the changing nature of outsourcing competition in the market place, both federally and in the States, including the move towards partnering by the Australian Department of Defence.

The effect of these changes has been twofold:

- Rationalization among the prime fraternity in Australia, effectively reducing competition; and
- The ‘bulking up’ by Defence of scopes of works for service contracts, (e.g. Garrison contracts), and more recently the Western Australian Government (e.g. stationery, school furniture and business card contract under mandatory Common Use Arrangements, effectively eliminating Western Australian small businesses from competing for such work and favoring Prime companies or groups; e.g. Defence garrison outsourcing contracts have combined into a single contract what used to be separate contracts for services including security, gardening, administration, cleaning, catering and facilities maintenance.

The more recent development within the Department of Defence of uncontested, long-term partnerships or alliance contracts (e.g. 15 year contract with two options to extend a further 5 years each – effectively a 25 year contract) challenges the underlying policy basis of value for money, and the taxpayer really have no way of judging whether value for money outcomes were being achieved (Department of Finance and Administration 2002)

In essence, the changing nature of Australian and Western Australian industry has partially affected the balance of competition for procurement and contracting which in turn could impact on competition for outsourcing

and in the longer term on the value for money outcomes achieved from the outsourcing process. This trend is exacerbated by the changing nature of government itself.

#### **Changing Nature of Government**

The changing nature of national governments and the public service impact on outsourcing were highlighted by Rivlin (1996 cited in O'Faircheallaigh, Wanna & Weller 1999) at the Organization for Economic Development and Cooperation (OECD) as:

- globalization and pressures to cooperate and compete in new ways;
- dissatisfaction because of ever rising expectations of citizens; and
- budget stringency focused on reducing deficits and curtailed expenditure.

The changing nature of government organizations manifested itself in many different ways, including through business 're-engineering' through adoption of core business strategies of contractual management, contestability, benchmarking and best practice in the new learning organization (O'Faircheallaigh, Wanna & Weller 1999). This involved less 'red tape' through focus on results, greater efficiency, reduced staff, charging end-users for services and performing fewer non-core functions in-house, and doing more with less, where managers were more accountable, permanence of employment was not guaranteed and positions were contestable (O'Faircheallaigh, Wanna & Weller 1999). Further, the discrete separation of functions allowed governments to contract-out and, in theory at least, deliver cheaper service enabling "focus on core activities and improving the range or quality of services purchased from providers" (Davis et al. 1997 cited in O'Faircheallaigh, Wanna & Weller 1999, p. 25).

Certainly the issues associated with the changing nature of government impact on the nature the purchaser-provider separation which in turn affects how employees are treated in terms of retention within the organisation, being offered for transfer to the potential provider, facing redundancy or retrenchment or transfer within the organisation, group or government. More could be said about the economic considerations involved, for instance the cost of redundant employees seeking welfare benefits, creates a cost for the taxpayer and needs to form part of the transaction costs and evaluation of the proposal to outsource services, but is not always taken into account, which raises the issue of whether such decisions actually provide value for money.

## **Conclusion**

Some issues human recourses issues relating to the impact of outsourcing decisions on employees were considered against the objective of achieving value for money considered throughout the life of the contract. There are many issues yet to be considered, including the transaction costs associated with human resources and outsourcing issues relating to employees that could be retained, redeployed, made redundant or transferred to the provider.

The consideration of value for money through the life of a contract provided a basis for considering the impact of employment issues in outsourcing during the various phases of the procurement cycle, particularly at the tender evaluation and contract award stages. The issues of the economic costs consideration related to employees and outsourcing provides fertile ground for further research and reconsideration of the traditional evaluation methodologies in tendering.

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### End Notes

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<sup>1</sup> The guidelines were developed by the current researcher who was assisting the Department of Agriculture with outsourcing projects during 1996.

<sup>2</sup> (Ayse Süzen v Zehnacker Gebäudereinigung and Betts v Brintel Helicopter) challenged the Transfer of Undertakings (Protection of Employment) Regulations 1981 (TUPE),

<sup>3</sup> Mr Mahony was involved in debating these issues through his membership of the Australian Defence Commercial Support Program Consultative Forum (CSPCF) and the Contracting Consultative Forum (CCF).

<sup>4</sup> ASI, Eglo Engineering and ICAL were the original members of the AMECON consortium that purchased the Commonwealth operated Williamstown Dockyard in Victoria and completed the \$400M Australian Frigate program, building two guided missile frigates (FFGs) for the Royal Australian Navy. The current researcher was the AMECON consortium coordinator for the successful Williamstown Dockyard and Australian Frigate program acquisition.

# Role Play: New Method for Interpersonal Skill Development

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## Abstract

In the new millennium, most managers, try to implement new method in improving their interpersonal skills among the staff. In the age of globalisation, every staff in the organisation has to master the skill because the focus of the organisation nowadays is more towards customer friendly. Research has proven that the use of Role-play is suitable in organisational development. Role-play can be a powerful way of practicing inter-personal skills. (Micheal Maynard, 2003). Currently, problems, which arise in working areas, have resulted in failures of management planning in relation to human resource. This paper will highlight the benefit of using role-play in training the undergraduates, especially to improve their interpersonal skills. Ten undergraduates were interviewed and the data was analysed using narrative analysis based on the theme of the research paper. This research found that role-play method is effective in training Interpersonal skills among the research participants. This paper will end with a suggestion to the managers on how to conduct the training by adapting role-play as a tool to the organisation.

## Introduction

Role-play is **NOT** like most traditional methods of instruction, which incorporate rote learning, reading and writing. Role-playing has proven to be an effective method of developing interpersonal communication skills. A popular Chinese proverb can be recited to support this statement. *“Tell me, I will forget, show me, I may remember, involve me, and I will understand”*. In role-playing, getting involved is the most important aspect. To understand a real life situation, is to have that situation created in a role-play. Therefore learning through role-play is similar to experiential type of learning, that is, learning by doing.

To somebody who is new to this concept, role-play is similar to a mini-drama, but in contrast role-playing accelerates the acquisition of knowledge, skills, and attitudes, and offers trainers the opportunity to observe growth and progress in a practical style. Role-play is not about teacher-centred pedagogical approach, but it is more concerned with active participation of learners to new roles and behaviours, and these roles are closely associated to roles and behaviours of real-life situations. It is a way to acquire interpersonal practice, whether it is related to management skills, job interviewing, supervising, technical assisting, counselling, or whatever position as long as it is to acquire the desired experiences.

Role-play can be presented in various forms such as, experiential learning, sensitivity training, simulation, action learning, encounter group, psychodrama and socio drama laboratory method and drama. Whatever it maybe called, role-plays should be carried out between thirty seconds to five minutes. Some role-playing activities needed longer session depending to the complexity of the role-play. Trainers often conduct training session in rooms where the participating individuals will be exposed to observation by the audience. Sometimes their actions are being videotaped for assessment purposes.

The kind of role-play we are dealing here is geared towards the analysis of personal values. It is mend to train employees the ability to develop strategies for solving personal and interpersonal problems. To develop confidence and the feeling of empathy towards others is the main concern. After getting involved in role-play, employees should be able to learn how to express their own opinion with certainty and have the feelings of empathy towards others. This paper will offer suggestions to the managers on how to conduct the training by adapting role-play as a tool to the organisation.

## Literature Review

### The Modern Role Play

There are a number of definitions to role-play. Thiagarajan (1996, p. 521) defined role-playing as an exercise in which "players spontaneously act out characters assigned to them in a scenario". A role-play can also be defined as a structured scene or series of scenes involving interactions between two or more persons. Participants are assigned roles, which enable them to demonstrate or practice interpersonal skills related to a training objective or outcome. In short, a role-play is but an activity, which requires a person to take on a role that is real or imaginary, it involves spontaneous interaction of participants as they attempt to complete a task.

As we turn the pages of history, role-play had already come into existence as a favourite teaching instrument by students because it got rid of the boredom and brings trills and excitement into the classroom or training session. Experiencing what you learn is far different from mere reading and listening. According to (Land, 1987) who says, this model brings forth detailed and concrete study materials, which are more difficult to pinpoint by the way of lecture and discussion. And his argument is strengthened by Ments (1989, p.23) who says, although conventional methods of teaching and learning such as lectures, reading, films, discussions and writing can be used successfully to help students acquire knowledge of factual material and the essential theoretical framework into which future experiences may be fitted, they are incomplete. According to McDonald-Mann, (1998, p 117) ... lectures are needed in most skilled-based training because they are the most efficient way to deliver large amounts of information and theory. But no matter how well done, lectures alone are never sufficient. From these arguments, we can clearly see that role-playing is not just interesting to the employees but it is an additional factor that will complete the training.

According to Olusegun Agboola Sogunro(2004) role-playing has been proclaimed as a powerful technique used in the upper levels of cognitive domain of learning, especially in both individual and group situations such as counselling, interviews, customer service and sales, personal relationships, negotiations, public meetings, team working committees, research, and change processes which require a great deal of practical engagement of participants in the act of doing (Buchan, 1972; Harris, 1985; Hershey, 1985; Cranton, 1989, 1992; Ments, 1989). As indicated by Hughes *et al.* (1993, p. 44): learning new leadership skills means acquiring knowledge through lectures and then practicing that new knowledge through role-plays.

According to Olusegun Agboola Sogunro (2004) role-playing has the advantage of letting trainees actually practice relevant skills and thus has greater transferability to the workplace than do didactic lectures of abstract discussions about leadership.

Realistically, role-playing encourages participants to view situations or problems from various perspectives other than their own. When participants are assigned roles different from their usual roles, they are provided opportunity to examine and question their assumptions and are enabled to learn new roles, become more aware of their own roles, and understand more clearly other people's roles and points of view (Ments, 1989, 1999; Cranton, 1992).

### Role-playing as a Method for Interpersonal Skill Development

The interpersonal communication is defined in this research as a communication, which is the transmission of information and meaning from one party to another through the use of shared symbols, Thomas.S.Bateman,(1996). He explained interpersonal communication as a process where there are two parties, the receiver and the sender. The sender encodes the message, and transmits it through a channel, either in a verbal or non-verbal manner to the receiver who decodes and interprets.

From the statement, we can see that interpersonal communication skill is actually a complex skill because it involves relationship between individuals and the situation they are in. In order to train employees to understand the situation they are in, they must be subjected to an environment, which is similar. This is where role-playing comes into the picture. Through role-playing, employees will experience virtually real situation and real problems. Harris (1985) posited that role-playing has its greatest value in developing insight into complex professional situations, developing skills in person-to-person relationships and as a direct training activity for interviewing, discussion-leading, and teacher-questioning skills.

Real situation involves the students having the feel of the real happenings in the work place. They take the role of the character in a scenario created by the trainer. Hershey (1985) evoked a scenario explaining how role-playing can be used as a tool for improving interpersonal skills and customer-employee communications in an organization. He claimed that in a role-playing activity, where one employee assumes the role a manager, another plays the role of an irate customer, and others play roles, including a receptionist or secretary, and a typist who has two other rush jobs, employees are enabled to gain better understanding of problems as seen by others. In essence, the role-playing method will help employees enhance their understanding regarding the ethics of teamwork and how to maintain a good and effective customer-employee relationships. In 1972, Buchan reported success in using role-playing to help high school students develop various skills, including marketing, job interviewing, obtaining loans and insurance, and building personal relationships with others.

Currently, with the increase need of able workers in the management, role-playing is becoming important. The management are looking at role-play as a means to train their personnel in areas, especially the interpersonal communication. In order to train the management personnel, learning should be similar to the real situation. According to Crawley & Errand (1981), role-playing is used for its promise to engage learner and instructor alike in a specific learning experience. It can be employed for its rich transfer of learning potential to each participant's own learning repertoire.

Lately role-play has been much more organised. Indeed role-play has become a powerful way for practising inter-personal skills (Maynard *et al.* 2003). Johnson and Johnson (1997, p. 59) have described role-playing as "a way in which you can experience concretely the type of interaction under examination". According to these two experts, "The more real the role playing and the more effective the exercise, the more emotional involvement you will feel and the more you will learn" (Johnson and Johnson, 1997, p. 60). Through role-playing activities, the instructors may change the students' behaviours and attitudes, and may experiment with new ways of managing situations, and may also understand new emotional experiences that they did not expect during the early stages of the role-play. Thiagarajan (1996) claimed that role-plays are most useful for practicing and developing interpersonal skills, including conflict management, negotiation, influencing, team building, active listening, giving and receiving feedback, and communication.

When using role-play in training interpersonal skills, it will focus not just the physical involvement of the participants but also their emotional feelings. Benfari (1999) recommended practicing role-playing with a person who has an opposite view in order to kindle interaction and consequently diminish their feelings of rejection, isolation, and anger. According to Benfari (1999, p. 202), "By walking in another's shoes, an introverted thinker can break through the self-absorption and feelings of anger". As humans we need to understand feelings of others in order for them to work as a team and to deal with clients or customers. It is utmost important for the organisation to improve both external and internal communication, without jeopardizing the relationship of a business with its clients or customers.

Effective practice behaviors are mastered by doing them, and the learning is affirmed with the valid experience of having done so. The experience of one's own efficacy solidifies learning (Bandura, 1977). In brief, to upgrade the standard of the human resource in the management sector, in relation to person-to-person relationship, the use of role-play is without doubt, effective.

**In summary, this study aims to examine the benefit of using role-play to improve the interpersonal skills in an organisation.**

## **Methodology**

The respondents were undergraduates of MARA University of Technology Terengganu Branch, who are pursuing a diploma in Accountancy Program. They are now in their third semester. They were selected by judgement sampling to cover only students from the rural areas of the state of Terengganu in order to make this finding more authentic presenting the effectiveness of the role-play.

Ten selected respondents from various parts of the states of Terengganu were selected for the open-ended interview session. The qualitative research consisted of face-to-face in-depth interviews with students doing semi-

professional courses. The interviews were conducted in a semi-structured format that allows respondents to express their own viewpoints (Flick, 2002). A set of interview topics guided the interviews, with a list of probing questions to draw out respondents' opinions. Topics were discussed as respondents brought them up, occasionally supplemented by new issues that arose during the interviews. The interview included student's opinion regarding the use of role-play in interpersonal development.

All in-depth interviews were conducted in the English language. Extensive notes were taken during the interviews. We highlighted key issues mentioned from each interview and combined the most common issues mentioned by the interviewees. What is it meant to achieve? It is carried out in order to identify the component of interpersonal skills like confident, understanding, ice breaking, maintaining relationship and negotiation skill. Major questions posed during each interviews were: (1) Do you think role-play improves your self-confidence? (2) Do you think role-play will help you to understand others? (3) Can role-play help you in the ice breaking process? (4) Can role-play help to maintain relationship? (5) Can role-play help you in negotiation?

Among the role-playing activities that has been carried out are; Story telling, mock debate, talk show, sketch and Impromptu role-playing. The researcher chooses these selections of role-plays as they do correspond with the syllabus. Besides, improved interpersonal skills will enable students to be marketable in the job market. Students were subjected to the role-playing activities three times a week during their lessons and each session takes about an hour. It is rational to keep role-playing short and fun, rather than long and tedious. Students at this level tend to loose their interest if the session is too long. Despite the interest shown by the students, the researcher has to set a time limit. The numbers of role-play is limited due to time constraint such as meeting exam deadlines and reports.

Two interview sessions had been carried out, which are, the pre-interview and post-interview. The pre-interview was to gauge the respondents' readiness and perception about role-play. The second is to get feedback from the activities, in relation to interpersonal skill. An audio tape recorder was used in each interview, which lasted for one to two hours. A transcription was done soon after each interview. A total of ten participants were chosen as respondents as this number was considered to have reached the data saturation point. The general view of their feedback is in table 1. After all the transcriptions have been completed, the constant comparative method was used by the researcher for the formation of data categories pertaining to their understanding and factors contributing their Interpersonal skills. The respondents' experiences in doing the role-play were also analysed to strengthen these research objectives.

## Finding/Result/Analysis

TABLE 1: REPRESENT THE RESPONDENTS' RESPONSES TO THE RESEARCH QUESTIONS; THIS TABLE ANSWERS FIVE RESEARCH QUESTIONS

No	Name	Feeling Confident	Under-standing Others	Negotiation	Ice-break	Maintain Relationship
1	Wan Nur Alwani	"When I do the activity, I am not shy anymore"	"... we can understand why the boss is angry"	"Some activities taught me to respect other people"	"... when we do talk show, we practice to introduce people"	"We learn to understand other people"
2	Farah Diana	"Yes of course. Last time I was nervous"	"... we will know if the person is angry, or happy or sad"	"... during mock debate and talk show, because we have to argue"	"When we do role-play we can do ice breaking"	"If we can work with our friends than we can work with other people"
3	Nor Aiza Amizan	"Yes, very little"	"Yes, ... I can speak them in English, but I cannot..."	"Yes. Mmm...when do activity"	"I don't understand"	"Yes..."
4	Noor Haiza	"I think I a little"	"We understand"	"Yes...When we"	"I learn how to"	"When we know"

		<i>bit confident... not like when I do story telling”</i>	<i>with our friends. We understand their feelings... and they understand our feelings”</i>	<i>debate, we accept our friend’s ideas. But sometime no. But we do not quarrel”</i>	<i>know other people. How to talk to them, and not be afraid to talk to people.”</i>	<i>them, then we can work with them”</i>
5	Ida Zuraity	<i>“I am not nervous to be in front of the class”</i>	<i>“We understand each other better after the activity”</i>	<i>“I think the mock debate teach me how to negotiate”</i>	<i>“I have no problem when I want to talk to friends”</i>	<i>“When we know them then there is no problem”</i>
6	Azmaruhayu	<i>“I don’t feel shy to stand in front of the class to do my presentation”</i>	<i>“Sometimes I understand, but... I cannot understand everybody”</i>	<i>“Yes... Sometime we agree with what our friend say. Sometime no. Our friend also same”</i>	<i>“If we see other people... students, we can talk to them”</i>	<i>“Yes, because we practice how to talk to other people”</i>
7	Norhidayu	<i>“I think it improves my self-confidence. I can do the activities and speak English at the same time”</i>	<i>“Yes... when we understand than only we can be close”</i>	<i>“When I talk... during the activity I tell my friend whether I like or not like her idea”</i>	<i>“Like when we meet new people we must be able to talk to them. We must start first. Maybe we are shy. But we must start. If not, nobody wants to talk.”</i>	<i>“Yes... can. If people can talk to each other than they can be friends”</i>
8	Mohd. Nasrol	<i>“Yes, because I am not shy to do the activities in front of the class”</i>	<i>“I think in class I can understand my friends”</i>	<i>“ Yes... when we do the activity, people talk many things when try to settle problem. We cannot listen everything. We must talk also. Other people must listen also. Then can settle problem:</i>	<i>“... Because in role-play we learn to talk to people. When we talk to people we can conversation</i>	<i>“Yes ... and when other people also talk so can become our friend. Role-play can help can get many friends”</i>
9	Muhd Mazlim	<i>“I can speak and do the drama in class. Last time I don’t like, because I am shy of the girls. Now I am more confident”</i>	<i>“Yes ... I must understand other people. I think role-play help to understand other people”</i>	<i>“Yes... I learn to negotiate when doing the activity ... talk show. Also debate”</i>	<i>“Yes. Like do talk show or role-play, you must know how to talk to other people. Sometime you don’t know other people”</i>	<i>“Yes. Because when we understand other people, we can work together all the time”</i>
10	Norhaswani Baizura.	<i>“At first I don’t have the confidence because my English was bad... but after</i>	<i>“I think I have no problem. When we talk we will understand our friends”</i>	<i>“Yes. I think I learn to negotiate during debate and talk show. Because in the activity we</i>	<i>“Role-play can help in the ice-breaking process, because when we do the activities, we</i>	<i>“Yes. Because role-play helps us to speak to other people. Sometime we need help from other people. If</i>

		<i>the activities I think I am more confident"</i>		<i>have to settle a problem. We must not quarrel"</i>	<i>sometime so acting, like meeting new people.</i>	<i>we don't know how to talk how to get help.</i>
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## **The Use of Role-play in Developing Interpersonal Skills**

There are numerous ways to teach interpersonal skills, and it is up to the trainer to choose whichever method he wishes to implement. In this case, the respondents are undergraduates of UiTM Dungun. They undergo various and vigorous language training. The training they received is specially formulated to prepare them for jobs later on. Basically, the students here are Malays or the bumiputras. Most of them are from the rural areas of the East coast of Peninsula Malaysia and they are a bit shy when it comes to performing in front of the class. To develop them to be capable executives or managing personnel, they have to experience the use of the English language in 'real' situation. After carrying out the role-plays, it is found that the students have improved considerably in their interpersonal skills.

Since we want to find out if role-play can develop the interpersonal skills, the explanations below will answer the research questions formulated which are the major questions posed during each interviews. The questions are focused on whether role-play improves their self-confidence in communication, helps to understand others, helps in ice-breaking process, maintain relationship and negotiation.

### **Role-play can Improve Confidence in Communication**

From the activities being carried out in the classroom, the researcher can acknowledge with certainty that the respondents have been optimistic and determined to improve their person-to-person communication. Most of the respondents have shown that they have improved their level of confidence in their presentation. All the respondents except Nor Aiza have clearly state that they are confident after undergoing the role-playing activities. Ida Zuriaty bt. Abdul Razak for example, says that after going though a number of role-playing, she has improved her confidence to use the language and socialize with others. Most of the respondents complain of being shy and feeling nervous. Most of them had to some extent overcome the fear of standing in front of the class after a number of sessions. Wan Nur Alwani is one clear example. Role-play and simulation activities stimulates authentic learner-to-learner conversational interaction (Richards, 1985). The activities also develop conversational competence among second language learners. According to Brumfit (1983), he refers to role-play as a fluency activity where opportunities arise for the learner to use language freely and creatively. Role-play focuses on using language as a conversational resource.

Azmaruhayu said, "*I can talk to people and not feel shy*". When she said those words, I can see that she meant what she says. She was always smiling and laughing to cover her shyness. But after the session, she looks confident. Students have been subjected to scrutiny by their teachers and that is the reason for them being shy. It was de-motivating. They have been told that making mistakes is wrong and punishable. In role-plays teachers or trainers do not jump in and correct every mistake. In role-playing, if there are mistakes, it can either be self-corrected, peer-corrected or negotiated with students on how they would like to be corrected. These may be the reason why students feel that they are motivated to talk and able to improve themselves in their communication skills.

### **Role-Play will Help in Understanding Others**

Students are mostly self-conscious of themselves. To the timid, they felt that their shyness is a factor that is transforming them to be different from others. They felt the others are watching and measuring them. So they shun themselves from talking. Bear in mind, these activities was carried out in English. Not being able to speak in English is a problem to them. What the respondents found out was, role-play helped them to overcome that

problem. Wan Nur Alwani said, *“Last time, I feel shy because people laugh at me. Now I know they also shy”*. This shows that from role-play, the respondents found that other people experience the same problem.

According to Noor Haiza, *“We understand with our friends. We understand their feelings... and they understand our feelings”*. She clearly mentions the importance of understanding others. When she understands others, then only she would be comfortable working with them. When you are comfortable with others whom you are working with, you would not face problems. This is supported by Norhaswani Baizura who says, *“I think I have no problem. When we talk we will understand our friends”*. Clearly, conversation will help us to solve our problems (at the work place) and at times, the problems of others.

Role-play helps students or the respondents to understand others. This is an important aspect of interpersonal development. According to Olusegun Agboola Sogunro (2004), by understanding the feelings of others, an empathetic leader is able to internalise the predicaments or situations of his/her followers and will be able to make the right decisions toward solving a particular problem. Being empathetic towards others is a quality of a leader. Being able to master a good interpersonal communication skill will definitely help an employee to have a leadership quality. This is a starting point towards a brighter future. It can lead to success or a better position in an organisation.

## **Role-Play Engages Negotiation**

To negotiate, there must be conversation. Sometimes the conversation would be drawn to an argument. Whatever the intensity, the purpose for a negotiation is to come up with a solution or answers. In a role-playing or simulation, the respondents were put into a real situation where their ability to negotiate was tested. In the mock debates, the respondents are to argue and they have to come to a conclusion. There is no right or wrong, but they have to communicate and exchange ideas and come up with a solution. According to Noor Haiza, *“Yes...when we debate, we accept our friend’s ideas. But sometimes no. But we do not quarrel”*. When the respondents do the mock debate, they learn to accept other people’s suggestions or arguments. But there are certain points given during the debate, which she could not accept. She has to state her stand. But they are not to quarrel. Everything about the debate has to end when the activity ends. They learn not to be emotional and to learn to accept. This is further supported by Noorhidayu who said, *“When I talk... during the activity I tell my friend whether I like or not like her idea.”*

When negotiating, students are to learn and understand the problem. Learn to listen, to communicate and to make choices. As Mohd Nasrol said, *“Yes... when we do the activity, people talk many things when try to settle problem. We cannot listen everything. We must talk also. Other people must listen also. Then can settle problem.”*

We can say that it is essential for would be leaders or managers to be able to negotiate. This can be clearly stated by Eitington (1989, p. 67) who asserted: In role-playing activities participants are learning "full time." This accrues because they are either experiencing (acting out the role-play), introspecting, engaging in self-critique, or critiquing others. In negotiating, one can never run away from engaging in a serious conversation. There is a lot of thinking going on and a lot of decision to be made. Sometimes we need to learn to accept criticism and sometimes we need to critic others too. But what is important is the outcome of the negotiations. It should be for the benefit of both parties. Participants must be taught to play a win-win situation.

## **Role-Play aid in Ice Breaking**

Ice Breaking is an essential skill in interpersonal skill. When you meet new people or meeting people having problem, you need the skill to start the conversation. Conversation is capable of healing the wounded heart. In management too we confront with a lot of uncertainties. We are not going to be quiet about it. We have to resolve the problem and the best way to resolve the problem is through communication.

Role-play is essential and in some instances is capable of solving multiple problems. The respondents have given positive remarks regarding the role-play. Noor Haiza said, *“I learn how to know other people. How to talk to them, and not be afraid to talk to people”*. A conversation is not something to be afraid of. It actually helps in reducing fear. And according to Norhidayu, *“Like when we meet new people we must be able to talk to them. We*

*must start first. Maybe we are shy. But we must start. If not, nobody wants to talk*". Most often students would not talk because we take for granted that others will start the conversation. But in most instances, the other party also waits for us to start. In a conversation, we should be the first to start. And Muhd Mazlim said, *"Yes. Like do talk show or role-play, you must know how to talk to other people. Sometime you don't know other people"*. Role-play can evidently show that students who are able to talk will be able to carry out ice breaking process. Even though when they perform the role-play, it was carried out among their peer group but when they encounter people who are unfamiliar they will be able to start a conversation. This can be best explained by Hershey (1985) who evoked a scenario explaining how role-playing can be used as a tool for improving interpersonal skills and customer-employee communications in an organization.

## **Role-Play Maintain Relationship**

Maintaining relationship in an organisation is important in order for the organisation to have an effective interpersonal relationship. From the respondents' responses the researcher finds that the respondents are able to understand the importance of this relationship. According to Noor Haiza, *"When we know them, then we can work with them"*. In an organisation, knowing whom you work with is a predominant factor. The relationship can be between employee-to-employee, employer-to-employer or employee-to-employer. And according to Norhidayu, *"Yes... can. If people can talk to each other than they can be friends."* Communication here seems to be the main focus again. As long as there is communication, the relationship will be maintained.

Norhaswani Baizura reckon, *"Yes. Because role-play helps us to speak to other people. Sometime we need help from other people. If we don't know how to talk, how to get help"*. It is very important for the students to speak because through interpersonal communication, only then you will be able to get assistance and help from others. If you are quiet, secluding yourself in your cubicle, you will be on your own and that might lead to a problematic relationship. According to Olusegun Agboola Sogunro (2004), the role-playing method will help employees enhance their understanding regarding the ethics of teamwork and how to maintain a good and effective customer-employee relationships. Thus, a good interpersonal communication will enhance and maintain a pleasant relationship. The management will profit by having employees who will be able to work together as a team.

## **Discussion**

After going through the activities, this paper will offer a few suggestions to the managers on how to conduct the training by adapting role-play as a tool to the organization. It is a fact now that playing out roles can be a vital educational tool to develop interpersonal skill. If playing roles is successful to the undergraduates of this university, it will undoubtedly be effective to train employees or the managing personnel in any organisation.

Now, instructors have to set a clear objective of the role-play. What purpose is the role-play being enacted? According to Maier, 1981 and 1985, with role-playing as an educational device of choice rather than a politicised tool, it can be adopted and effectively applied so long as the instructing persons are clear about the learning objectives. When referring to interpersonal communication skills development, the actual or real situation being applied is the only way to develop the skills. In interpersonal skills, it involves the interplay of verbal and non-verbal behaviours. And these behaviours are too complicated and subtle to be taught through mere reading and observation. The instructors thus, need to assess the educational appropriateness of each role playing assignment or simulated exercise.

## **Suggestions**

Managers should focus on these four main aspects when setting up a training session. Firstly, managers must think of the materials that they need to utilize during the session. Since the focus is more toward real life situation, therefore any items that are related to this training must be of real life too. The choice for the location of the training

should also be taken into consideration. The location should be adequate and effective where the participants should not be distracted. Besides that, it should appear less formal to the participants and able to reduce the level of stress.

Secondly, managers need to identify the manpower, or the choice of instructors. Organisations or institutions that are interested in training their employees in interpersonal skills should consider hiring instructors who are competent in this field. The best way to train is to employ professional role-player to help in the role-play. For example, according to Geoff Cotton (1996) Roleplay UK has established itself as the leading supplier of professional role players throughout the British Isles. Their clients include large insurance companies, which will assess all their sales forces to determine their competence. I would suggest the managers to employ professional role players for this task. Professional role players will be able to produce positive result and it has proven to be effective in role-play.

Thirdly, the method or the technique of delivery should also be an important aspect to be considered. Managers should see role-playing as a provider of opportunities to react to working situations and to give the employees a taste of real life. A well-planned and focussed utilization of role-playing fosters targeted learning while maintaining the inherent hands-on features of this powerful teaching tool. With a module as guidance, the role-play should have a beginning, during and an end development. Participants should always be supported and given feedback by the trainers and instructors. In brief, managers must set a clear objective and direction.

The last factor is, monetary or the financial support. Most organisations would not face any problem in terms of financing training for their employees. As this is important in term of improving the management of the organisation, managers would be ever willing to reserve a portion of the budget for the training.

## Conclusions

This research found that role-play is effective and a method to be utilized and exploited for interpersonal skill development. Role-playing has never been outdated; in fact it has taken a new terminology and approach. It is appropriate to regard role-play as a modern training tool due to the fact that it suits the present organisational needs.

Currently, when management is complex, relationship between the various levels of management is also similar in complexity. Especially when it comes to relationship between the administrative level and the employees, or with the consumers. I suggest that future research takes into account the training of senior personnel in interpersonal relationship. Breakdown in relationship occur, and it can be due to uncertainties between the workforces. Therefore in the training there should also be focus on eradication of uncertainties. Therefore Berger (1987) states how important to instil understanding in communication especially when it comes to developing the bond between the management and the employees.

The researcher is hopeful that in this age of globalisations, where the target of having a customer friendly organisation is important, role-play should be implemented in the training of interpersonal relationship. The advantage of role-play in whatever term it is being used is more than the disadvantages. Role-playing will continue to be in existent as long as participants are motivated, enthusiastic, and take their roles seriously.

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# **Service Skills: Impacts on Employee-Related Quality, Process-related Quality, and Outcome Quality**

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## **Abstract**

**The present study aims to provide empirical evidence to illustrate how service skills will determine the performance of frontline service employees and the relative contribution of employee performance to customer satisfaction and, subsequently, customer loyalty. Survey interviews were conducted to collect data from consumers who had just consumed personal loan service. The results of statistical analysis indicate that both technical service skills and functional service skills have direct impact on the three aspects of service quality: employee's service behavior, service process, and service outcome. Service behavior is the most power predictor to customer satisfaction. In addition, higher level of customer satisfaction will lead to higher level of and loyalty.**

## **Introduction**

Recent investigations in the area of human service delivery have recognized that employee performance is a vital factor influencing the quality of human service provided (eg. Bitner, 1995; Boxall, 2003; Hurlley 1998; Mohr and Bitner, 1995). Critical to the performance of service personnel is their service skills (Farrell et al., 2001; Mitchell, 1994; Pitt and Jeantrout, 1994; Sjoholt, 1999). Schneider and Scheeter (1992) have suggested that service employees need two complementary capacities: service competencies and service inclination. The former refers to service skills and knowledge needed to perform the service task and they can be enhanced through training.

Skill can be conceptualized as knowing how to make something happen (Senker, 1995). In a service process, skill refers to the ability to carry out the service role and related service tasks. The skills of the service provider become an integral part of the service in the mind of the customer (Farrell et al., 2001). Zeithaml et al.'s (1988) research work demonstrates that service failures are attributed to service employees' lacking of the required interpersonal skills, language skills, and other skills for the service job. Luk and Roger (2004) have found that service skills have positive impact on perceived quality of hotel service. Nevertheless, their empirical work is suffered from two major limitations. Firstly, the findings are industry-specific and whether they can be generalized to other kinds of consumer service is open to debate. Secondly, the service skills required for effective delivery of the intended service in fact vary from service to service. As such, the domain of the scales developed for the measurement of both technical service skills and functional service skills respectively based on the findings in the hotel industry may need to extend to cover additional service skills that are required to for smooth delivery of non-hotel services.

Following this line of thinking, this study is thus designed to achieve the following objectives:

- a) To develop a scale based on the ones created by Luk and Layton (2005 with modifications for service skills.
- b) To investigate the effects of various types of service skill on frontline service employees' service behavior, service manner and the service processes/procedures via which the service is delivered.
- c) To examine the impact of service behavior, service manner and service process on overall customer satisfaction.

### **Service Skills Crucial for Performance**

Skills refer to a person's ability/capacities to perform a set of specific tasks and are developed as a result of training and experience (Blanchard and Thacker, 2000; Gronroos, 2000). Experiences in various service industries indicates that product knowledge of the service, knowledge of the service firm and its policies, knowledge of competing services, and operation skills for service delivery are basic skills every frontline service provider has to learn (Christiansen et

al.1996). According to the suggestion by Gronroos (1985), this set of skills is highly related to the technical aspect of service quality and can be considered as technical skills.

Gronroos' (1985) explanations on functional quality and the SERVQUAL findings (PZB, 1988, 1991) provide theoretical basis for the types of functional service skills that should be included in service training packages for frontline employees. Based on the conceptualization of functional quality, the SERVQUAL findings, and literature review on service quality, organizational behavior, and training management, Luk and Layton (2005) have identified twelve types of service skills, including operational skills in delivering the service, knowledge of competing offers, information acquisition and communication skills, skills to manage customers' expectations and evaluation criteria, skills to identify and solve need-related problems, skills to orchestrate and control the service encounter, skills to reduce the risk of consuming services and to instill confidence in consumers' choice, skills to tangibilize the service and to help the customer assess its quality/benefits, and skills to educate /encourage customers to assist in performing the required service tasks.....and so on. Consistent with the suggestion from Gronroos (1985), the findings from their study indicate that these skills make up two service skill scales, technical versus functional. The first seven types of skills are technical skills whereas the remaining are functional skills. However, Luk and Layton (2005) also pointed out that the domain of these two skill scales could vary from service to service for some specific service skills may be required for certain types of services but not for others. Therefore, research efforts aiming at identifying more service skills crucial for service performance and customer satisfaction are warranted.

### **Service Performance and Customer Satisfaction**

PZB have suggested service quality as an antecedent to customer satisfaction and introduced the SERVQUAL scale for the measurement of service quality perceived by the customer right after consumption. However, the SERVQUAL scale has been criticized for placing too much emphasis on process, or peripheral service elements. Leithnen and Leithnen (1982) have conceptualized service quality as the determinant by three sets of service elements, process, behavioral, and outcome. Recent studies have also found that the outcome of consumption is critical to customers' evaluation of service quality as well (eg. Powpaka, 1996; Luk and Layton, 2003). Therefore, three aspects of service quality, service process, service behavior and service outcome, must be considered simultaneously if one want to explain the variations in customers' perceptions of service quality and its impact on customer satisfaction.

Customer satisfaction is a kind of fulfillment response (Oliver, 1997). It is defined as "a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment" (Oliver, 1996 p.13). The confirmation-disconfirmation schools has suggested customer satisfaction be subject to the comparison between perceived performance and expected performance and has argued for the use of gap scores to explain the level of satisfaction/dissatisfaction. However, some scholars have proposed to use performance-based model to measure customer satisfaction towards the overall performance of the services, encounters, and experiences with a particular firm (eg. Cronin and Tatlor, 1994; Johnson, 1998; Jones and Suh, 2000).

In services marketing literature, customer loyalty is defined as "the degree to which a customer exhibits repeat purchasing behavior from a service provider, possesses a positive attitudinal disposition toward the provider, and considers using only this provider when a need for this service arises" (Gremler and Brown, 1996 p.173). This definition suggests behavioral, attitudinal, and cognitive aspects of loyalty. Behavioral loyalty refers to repeat patronage, repeat purchasing, or commitment to repurchase (Dick and Basu, 1994; Gremler and Brown, 1996; Oliver, 1999). Attitudinal loyalty is a conscious effort to evaluate competing brands and consumers' preferences or intentions to select the brand (Gremler and Brown, 1996). Cognitive loyalty is referred to a brand that comes up first in customer's mind and that is more preferable than other alternatives when making a purchase decision (Dick and Basu, 1994; Oliver, 1999). Accordingly, it has been recommended that measures pertaining to these three types of loyalty should be adopted for a valid measurement of loyalty.

Based on the literature review in the preceding section, three hypotheses are developed for statistical test:

*H(1): Both technical and functional service skills will have positive impacts on frontline employees' service behavior (employee-related quality), the service delivery process(process-related quality), and the service outcome.*

*H(2): Frontline employees' service behavior, the service delivery process, and the outcome of service consumption will have positive effects on customer satisfaction.*

*H(3): Higher level of customer satisfaction will lead to higher level of customer loyalty.*

### **Research Method**

Survey interview technique was employed to collect data from respondents. All respondent were recruited through mall-intercept technique and interviewed at the entrance of the bank that was located inside the mall. All respondents must have just consumed personal loan service; otherwise, they would not be qualified for participation in the survey.

Eighteen items of service skills (Appendix I) were developed mainly based on the scales developed by Luk and Layton (2005), the extant literature and the information collected from focus group study with 32 managers from 11 retail banks in May 2004. Nine measures (Appendix I) for the measurement of the behavioral aspect of customer loyalty were employed. Each respondent was asked to report their satisfaction level with three service aspects, including service behavior of the frontline service provider, service manner of the provider, and the processes and procedures through which the service was delivered. These, together with customers' overall satisfaction with the service, were all evaluated with a single measure.

### **Findings and Discussion**

A team of five interviewers who majored in marketing were recruited and attended two sessions of training in interviewing technique specially designed for this survey. We used street-intercept technique to sampled respondents from different retail banks at the banking center in Hong Kong. All sampled respondents were asked to evaluate the performance of the tellers who had just delivered personal loan service to them.

A total of 265 respondents were interviewed with four questionnaires having quite a number of questions not answered. Therefore, a total of 261 completed questionnaires were used for analysis. Table (1) summarizes the demographic characteristics of these respondents.

TABLE (1): RESPONDENT PROFILE (N = 261)

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Gender: Male = 121, Female = 140
Age: Below 20 = 10.3%, 21-30 = 53.3%, 31-40 = 25.3%, 41 or above = 11.1%
Education: Primary = 6.9%, High School = 42.7%, University = 48.8%, Others = 1.5%
Average Monthly Income (HK\$): Below 10000 = 60.2%, 10001 – 20000 = 26.8%, 20001 – 30000 = 10%, Above 30001 = 3.1%

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Since the items for the constructs were all developed based on the established scales with modifications only, confirmatory factor analysis was used to test the reliability and validity of these scales. As evidenced in Table (2), the Alpha value of each scale ranges from 0.81 to 0.94, displaying a high level of reliability. Moreover, all these constructs are positively correlated with large  $r^2$  value. These provide preliminary supports to the hypothetical relationships among these constructs.

Then we used LISREL program to test the proposed structural equation model. The fit measures indicate the model has an acceptable level of goodness of fit (Chi-square = 1106.64,  $df = 430$ , NFI = 0.959, CFI = 0.974, PNFI = 0.887, RMSEA = 0.077). Except three items, the Squared Multiple Correlation values of the items forming all these scales are higher than 0.5, showing good reliability.

As indicated in Figure (1), both H(1) and H(3) are supported. Both technical and functional service skills have significant and positive impacts on frontline service providers' service behavior, the service delivery process, and the service outcome, though overall the former has relatively greater impact than the latter. The positive effect of satisfaction on customer loyalty is confirmed as well.

Considering technical service skills alone, the magnitude of their effects on service behavior, service delivery process, and the outcome is about the same. However, functional service skills are found to have strong impact on frontline service employee's service behavior but weak to moderate impact on service outcome.

The findings reveal that H(2) is partly supported. It is interesting to observe that customer satisfaction is by and large determined by service behavior of frontline service provider and that service process has negative impact, instead of positive effect as hypothesized, on customer satisfaction. These phenomena can be explained by the fact

that in Hong Kong the prime interest rate is set by the Hong Kong Association of Banks and banks therefore use it as reference to determine the interest rate of various types of personal loan. Variations in the interest rate offered by competing retail banks are minimal. As such, the cost of transaction to, or the interest earned by, each customer will not vary much regardless which bank the customer banks on. In other words, the outcome of similar retail banking services is about the same and its contribution to customer satisfaction is not as great as expected.

On the other hand, imitation has been the major approach adopted by banks in Hong Kong when introducing new services. Most banks render the same type of retail banking service like passbook service, credit card service, and fixed deposit service via similar operation procedures. In addition, having living in a major financial center like Hong Kong for years, local inhabitants in Hong Kong are very familiar with different types of retail banking services. Some of them can even assist in the delivery of the required services so that they can have the transaction completed as speedy as possible. A teller who delivers the required service step by step along the prescribed procedures without flexibility may make some customers feel that s/he was inexperienced and/or less confident.

### **Conclusion**

The findings confirm the important role of both technical and functional service skills in three aspects of service performance – behavior, process, and outcome. As perceived by customers, both types of service skill have relatively greater impact on service behavior of the frontline service employee. In the situation where there is low level of differentiation in service process and service outcome, service behavior of the employee appears as the most important determinant to customer satisfaction, which has significant impact on customer loyalty. All these suggest service firms should invest in service training to equip frontline employees with good technical and functional skills, particularly the former, if they would like to improve service performance.

The scales for technical service skills and functional service skills appear as valid instruments for the measurement of training efforts and potential effects of service training on service behavior, service process, and service outcome. However, the scales may be industry-specific and future replication studies in other service markets could help to examine the generalizability of them and their power in explaining variations in frontline employees' performance in behavioral, process, and outcome aspects of service.

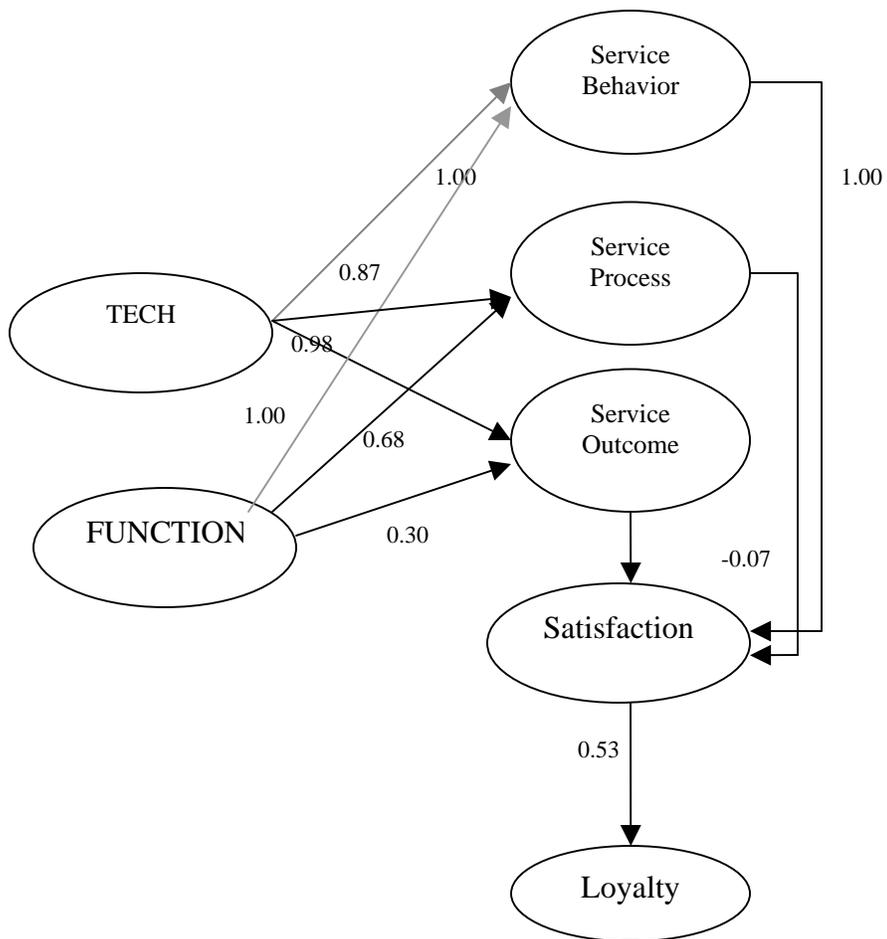


FIG. (1): RELATIONSHIPS AMONG TECHNICAL SERVICE SKILLS, FUNCTIONAL SERVICE SKILLS, PERFORMANCE ON SERVICE BEHAVIOR, SERVICE PROCESS, SERVICE OUTCOME, CUSTOMER SATISFACTION AND LOYALTY

TABLE (2): FACTOR STRUCTURE AND THE RESULTS OF RELIABILITY TEST

Skill Factor 1: Technical Services Skills (Alpha = 0.89)

- *Ability to handle complaints from customers*
- *Skills in identifying customers needs*
- *Skills in having good conversation with customers*
- *Skills in judging individual customers' own problems*
- *Skills in convincing the customer to maintain good relationships with the bank*
- *Skills in solving any problems with teller/loan service*
- *Skills in helping customers understand the features and benefits of the bank's service*
- *Listen to customers attentively and patiently*
- *Skills in helping customers provide the information necessary for smooth delivery of the service*
- *Skills in educating to customers form a right expectation of the bank's services*
- *Skills in advising customers how to select and asses various types of retail banking service*

Skill Factor 2: Functional Service Skills (Alpha = 0.81)

- *Knowledge of retail banking service*
- *Knowledge of the bank*
- *Skills in encouraging customers to assist in performing the required service tasks for personal loan service*
- *Language skills in English and/or Mandarin*
- *Clerical skills required for efficient delivery of the service*
- *Knowledge of the procedures for the delivery of the services required by the customer*
- *Understanding of the bank's polices regulating the delivery of the service asked by the customer*

Factor Structure of Customer Loyalty (Alpha = 0.94)

- *The experience of this transaction will enhance a favorable image of this bank*
- *I can count on the employee taking actions to address my needs*
- *I think I did the right thing when I decided to use this bank's services*
- *I will say positive things about this bank's services to other people*
- *I will recommend this bank to someone who seeks my advice*
- *I will encourage friends and relatives to do business with this bank*
- *I will consider this bank my first choice if I want the same service*
- *I will do more business with this bank in the next two years*
- *I will continue to do business with this bank if the service fee increases somewhat*

## APPENDIX (I): MEASURES FOR THE SCALE OF SERVICE SKILLS AND CUSTOMER LOYALTY

### A). For Service Skills

- *Ability to handle complaints from customers*
- *Skills in identifying customers needs*
- *Skills in having good conversation with customers*
- *Skills in judging individual customers' own problems*
- *Skills in convincing the customer to maintain good relationships with the bank*
- *Knowledge of retail banking service*
- *Knowledge of the bank*
- *Skills in solving any problems with teller/loan service*
- *Skills in helping customers understand the features and benefits of the bank's service*
- *Listen to customers attentively and patiently*
- *Skills in helping customers provide the information necessary for smooth delivery of the service*
- *Skills in educating to customers form a right expectation of the bank's services*
- *Skills in advising customers how to select and asses various types of retail banking service*
- *Skills in encouraging customers to assist in performing the required service tasks for personal loan service*
- *Language skills in English and/or Mandarin*
- *Clerical skills required for efficient delivery of the service*
- *Knowledge of the procedures for the delivery of the services required by the customer*
- *Understanding of the bank's polices regulating the delivery of the service asked by the customer*

### B). For Customer Loyalty

- *The experience of this transaction will enhance a favorable image of this bank*
- *I can count on the employee taking actions to address my needs*
- *I think I did the right thing when I decided to use this bank's services*
- *I will say positive things about this bank's services to other people*
- *I will recommend this bank to someone who seeks my advice*
- *I will encourage friends and relatives to do business with this bank*
- *I will consider this bank my first choice if I want the same service*
- *I will do more business with this bank in the next two years*
- *I will continue to do business with this bank if the service fee increases somewhat*

## References

Contact the Author for a list of references.

## End Notes

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# Synergizing Human Excellence through TQM & QC

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## Abstract

We live in a world driven by *excellence* and the *will to excel*. It has been realized by management all over the world that among all resources that we have for producing goods and services i.e. man, machines methods and materials, the most important one is the human resource. No matter how sophisticated the technology or machines one has, until and unless the human element in the organization is given adequate consideration, there would be a limit to what could be achieved by way or results. Human which is the most coveted resource is managed by human which is again a similar resource having vast creative potentialities and capabilities. TQM and QC are such pathways which *create a climate in which every employee discovers, develops and uses his or her capabilities to the fullest extent* by creating a cooperative workplace. Both these concepts is such an exquisite which could develop synergy of belongingness, dedication, motivation, commitment character, high performance and overall excellence in terms of cost quality productivity and human resource.

## Introduction

During the past few decades, many management approaches have emerged, been hailed as panaceas and then faded into oblivion after a very short time. However, Total Quality Management (TQM) outlines all such fads and continues to provide guidance in the new century. Numerous successful companies worldwide have implemented TQM Systems and made this transformation an irreversible, benign process. Those companies are capable of innovating and achieving better performance through quality improvement efforts. In light of the prevailing economic crises and intense competition in global market, the strategic implementation of TQM in improving quality, reducing cost, and delivering goods on time (QCD) as well as in stimulating new product development plays a critical role in strengthening the competitive edge. Currently TQM is considered an important cultural element of business corporations. In other words, TQM is an element of corporate culture, which represents a vision and behavioral patterns shared by all members of an organization.

India is a geographically vast country with diverse cultures, languages and management practices. Although its economy has been liberalized at a slower rate than those of the Asian tigers, yet it has achieved steady growth. In today's difficult economic circumstances, India and China have maintained a continuing if unspectacular economic growth rate; India has achieved nearly total self-sufficiency in all areas of manufacturing and services. Today, India is seen as a manufacturing destination of choice in such areas as textiles, automobile components and computer software because costs are lower and quality levels are comparable to the best worldwide. Currently numerous Indian companies are seen as benchmarks of quality in their respective industries. Even there has been a rapid increase in the number of consultancy firms specializing in TQM applications, along with the number of firms attempting to achieve ISO 9000 certification.

This is all because quality is the most important strategic weapon in the economic revolution overtaking the competitor and become the world-class leaders. To achieve quality TQM is such a pathway, which can nurture this quality component in an organization in a fruitful manner. Though many countries like Japan, U.S.A., Korea, Europe and many developing nations have implemented the concept very successfully and TQM has played a pivotal role in shaping and influencing business success. But after a strategic implementation strategy TQM becomes a regular feature activity of business processes and that is where the system lacks with synergy, enthusiasm and zeal of the concept. It happened in Western countries but still there are certain unfolded aspects associated with TQM making its potentials stronger to be once again revived in an organization.

TQM has evolved itself to be associated more often with statistical tools and process control techniques but in its essential sense TQM has much to do with human resource. Human synergies and potentials can be explored to

a much greater extent under TQM philosophy. May be it is like an old wine in a new bottle but again old is gold so thinking again on TQM with a different angle gives a different and new perspective to sustain this concept. This paper presents two case studies of TQM response in India.

## **Hindustan Zinc Limited (HZL)**

HZL is one of the India's leading zinc- Lead producers with vertical integration in other non-ferrous metals as well. Incorporated in January 1966 HZL operates 4 Lead – Zinc Lead producers with vertical integration in other non ferrous metals as well incorporated in January 1966 HZL operates 4 Lead- Zinc mines with a total Lead zinc ore production of 3.34 million tonnes per annum (tpa) and four smelters with installed capacity of 1,69,000 tpa zinc and 43,000 tpa lead.

### **Focus on Training**

- Covering the top management with 85% executives to develop multi- functional and leadership skills for strategic management and covering the area of attitudinal change.
- For middle management level concentrating on insights and skills of inter- personal relations, working in groups and inter- disciplinary affiliation.
- For junior level management level programs focus on developing appreciation of supervisory role, cost reduction, safety and discipline issues.

### **Training and Development Strategies**

It has been sought to be achieved through a multi pronged, which includes:

- One-year comprehensive and rigorous induction, rotational, on the- job training and foundation course in management.
- Theme based training and development intervention to lift the threshold of skill level of employees to a very significant higher level in areas like productivity, leadership, team building, computer applications and performance counseling.
- Sponsoring to specialized programmes on technical managerial areas to a professional institutions.
- Continuous learning environment (CLE) launched on 15<sup>th</sup> Oct. 2002 emerged as a dynamic model in which 4484 employees at the shop floor have been trained through 155 programs covering almost all areas where learning needs were identified.

## **Quality Oriented Goals**

- Provide products and services at a quality level that meets initial and continuing needs and expectations of customers.
- Achieve leadership in quality and technology; and provide an environment and education in which every person is committed to and activity involved in error- free performance.

### **TQM to Back up Mission and Vision**

The basic elements in HZL of TQM programs are:

- Emphasizing doing things right the first time;
- Contributing to excellence by setting objectives and evaluating actions.
- Corporate Environment and safety & health policy has been implemented.
- Employee participation and development.
- Customer driven quality in product and services.
- Implementing ISO series criteria in daily operations.
- Pursuing quality excellence through continuous process improvement are the prerequisites for TQM culture is adopted.

### **JK Tyre (JKT)**

JK Tyre is the only tyre manufacturer in the country to produce high performance “T” & “H” rated steel radial tyres. Besides Indian, JKT have a worldwide customer base in over 45 countries across all 6 continents. It is the largest manufacturer of truck and bus tyres in India covering 74% of the total tyre business in India. It is operating at a capacity of 166 MT/ day approx.

**Quality Policy:** “We the people of JK Tyre will have an organization committed to quality in everything we do. We will continuously anticipate and understand customer’s requirements, convert these into performance standards for products and services and meet these standards every time. Full customer satisfaction – both internal and external is our Motto”

**Quality Management Systems:** JK tyre has integrated all aspects of operation with ISO 9001. It has QS 9000 in 1998 for multi operations. It has ISO 14001 certification and “E mark” certification for exporting tyres to Europe certification for exporting tyres to European markets.

To meet stringent international standards “INMETRO”(Instituti Nacional De Materiologia- Brazil) certification is with JK tyre.

Consistent total quality culture is fostered through:

- Training of all employees in quality system and trained managers is technique of self-assessment.
- Assessing awareness through self assessment & identifying areas for improvement, reviewing key performance parameters
- Encouraging cross-functional teams, small group activities, performance appraisal, and career planning and job rotation.
- Presentation meetings in presence of top mgt. are organized to appreciate effort and success.
- Involvement with customers and supplier is through: Dealers visit to plant and executives visit to market. Product performance review product meeting and weekly service returned product meeting.
- Various contributions to quality awareness programs and research work in field of tyre technology.

## **Research Design and Methodology**

The present study brought out some of the humanistic aspects related to TQM. The study was conducted between the two aforesaid organizations where the magnitude of change in the people working is tried to be highlighted from this study. The total sample size was 60 divided equally amount both the organizations. The questionnaire was administered on the managerial level of employees of both the organization who supervise, regulate, coordinate and manages TQM activities. Responses throw light on various aspects of improving human excellence implementing the concept of TQM.

### **Humanistic Elements through TQM: The Research Parameters**

TQM as a way of creating the right attitudes among human resources and controls to make the prevention of defectives, possible and optimize customer satisfaction by increased efficiency and business effectiveness. This right attitude needs vigorous training session, which could develop, more motivation and motivation and commitment. As the same time this motivation and commitment character has be to self sustaining so as not to get extinguished in the torrents of opposing forces. This foundation should be shaped voluntarily through self-actualization. TQM is such an exquisite, which could develop behavioral aspects of employees. Some of the aspects, which are taken for the study, are:

- Satisfaction perception
- Cultural change response.
- Product Quality Improvement.
- Improvement in Quality of work life.
- Improved human relations.
- Empowerment of employees.

TQM is such an exquisite acting like an umbrella to protect from sweeping changes and global crisis as well as nurturing an organization with different human behavioral aspects.

## Results

It was found from the first hand information that the implementation and institutionalization of TQM and its different aspects is much properly and progressively handled by JKT as compared to HZL. Definitely TQM apart from productivity, cost effectiveness, quality is able to hit on the heart of human synergy to enhance their 'performance at their best levels.

### Satisfaction Perception

Satisfaction perception is the extend to which the people related to the growth of the organization are satisfied with the organization. This is a vital factor as the organization's growth depends on it. Broadly speaking satisfaction perception is decided by two factors

- Customer satisfaction.
- Employee satisfaction

The overall figures of both HZL and JKT revealed that satisfaction perception is found to be more in JKT with **63.33%** respondents found to be at 4<sup>th</sup> Rank i.e. maximum extent of satisfaction whereas this is **16.67%** in HZL.

TABLE 1: OPINION ON SATISFACTION PERCEPTION AFTER IMPLEMENTING TQM

Rank	HZL (%)	JKT (%)
4	16.67	63.33
3	40.0	23.33
2	36.66	6.67
1	6.67	6.67
<b>Total</b>	<b>100</b>	<b>100</b>

### Cultural Change Response

TQM encourages a change in culture towards satisfaction. Cultural change response can be considered as sum total of values, behaviors and norms of the organization towards healthy working conditions to achieve the required quality. The factors indicative of cultural change include:

- Quality workmanship values.
- Management attitude
- Motivation
- Ability and skill improvement
- Cohesive work force.

In JKT & HZL cultural change response found to be resting on 3<sup>rd</sup> rank i.e. to a certain extent with JKT having **50%** and HZL **46.67%**. The first hand information review positive response for cultural change through TQM but only **30%** respondents from JKT and **13.33%** from HZL found the response to be on 4<sup>th</sup> rank.

TABLE 2: OPINION ON CULTURAL CHANGE RESPONSE AFTER IMPLEMENTING TQM

Rank	HZL (%)	JKT (%)
4	13.33	30.0
3	46.67	50.0
2	20.0	20.0
1	20.0	NIL
<b>Total</b>	<b>100</b>	<b>100</b>

### Product Quality Improvement

This improvement can be perceived from:

- Enhanced reputation.
- Improved reaction to competition.
- Reduced liability risks.
- Smoother new product development.
- Better customer response.

The overall figures of both the organizations i.e. JKT & HZL reveals that in JKT this improvement seems to be more as compared to HZL. **60%** respondents in JKT and **50%** in HZL mentioned about improvement in product quality to a maximum extent i.e. 4<sup>th</sup> rank. Definitely TQM is above to leave its impact on the ultimate services been provided by the organization.

TABLE 3: OPINION ON ACHIEVING PRODUCT QUALITY IMPROVEMENT AFTER IMPLEMENTING TQM

Rank	HZL (%)	JKT (%)
4	50.0	60.0
3	26.67	30.0
2	16.66	10.0
1	6.67	NIL
Total	100	100

### Improvement in Quality of Work-Life (IQWL)

Quality of work life approach assumes the perspective of the individual worker as regards his or her skills, potential and feeling about the job and promotes meaningful recognition for the worker as an individual improved in quality of work life is assessed by:

- Motivational progress.
- Orientation and training programs
- Communication
- Employee responsibility

In JKT **50%** respondents mentioned IQWL to 4<sup>th</sup> rank i.e. to maximum extent whereas in HZL **43.33%** respondents revealed the same. This shows that TQM is leaving its impact on different aspects of employees' performance.

TABLE 4: OPINION ON ACHIEVING IMPROVEMENT IN QUALITY OF WORK LIFE AFTER IMPLEMENTING TQM

Rank	HZL (%)	JKT (%)
4	43.33	50.0
3	26.67	30.0
2	23.33	20.0
1	6.67	NIL
Total	100	100

### Improved Human Relations

Viewing to the humanistic aspect of TQM we can see that the employees relations with other people should have an improvement. This can be spitted in three 'parts which shows relations with:

- Management
- Co- workers
- Social relations.

It is an intangible advantage of TQM. The overall figures revealed that in JKT **36.67%** and in HZL **20%** respondents mentioned improvement in human relations to maximum extent. The figures reveal that TQM is able to improve human relations and build a strong bond of team spirit among the employees.

TABLE 5: OPINION ON ACHIEVING IMPROVED HUMAN RELATIONS AFTER IMPLEMENTING TQM

Rank	HZL (%)	JKT (%)
4	20.00	36.67
3	33.33	40.00
2	30.00	23.33
1	16.67	3.33
Total	100.00	100.00

**Empowerment of Employees**

The best way to ensure involvement of every one in the process is encouraging participation and team work with empowerment of employees. Empowerment provides an attitude of mind based on pride in the job, in the self-ensuring satisfaction and commitment of the employees. Empowerment of employees is done under the frame work of quality circles, quality improvement teams, suggestion schemes to explore their potentials.

The overall figures revealed that in HZL 30% and in JKT 46.67% respondents revealed that empowerment of employees with the implementation of TQM is to a maximum extent i.e. 4<sup>th</sup> rank. It shows that empowerment which is one of the objectives of TQM is successfully accomplished in both the organization with a much higher degree in JKT as compared to HZL.

TABLE 6: OPINION ON EXTENT OF SUCCESS IN EMPOWERING OF EMPLOYEES AT ALL LEVELS AFTER IMPLEMENTING TQM

Rank	HZL (%)	JKT (%)
4	30.00	46.67
3	36.67	26.67
2	26.67	23.33
1	6.66	3.33
Total	100	100

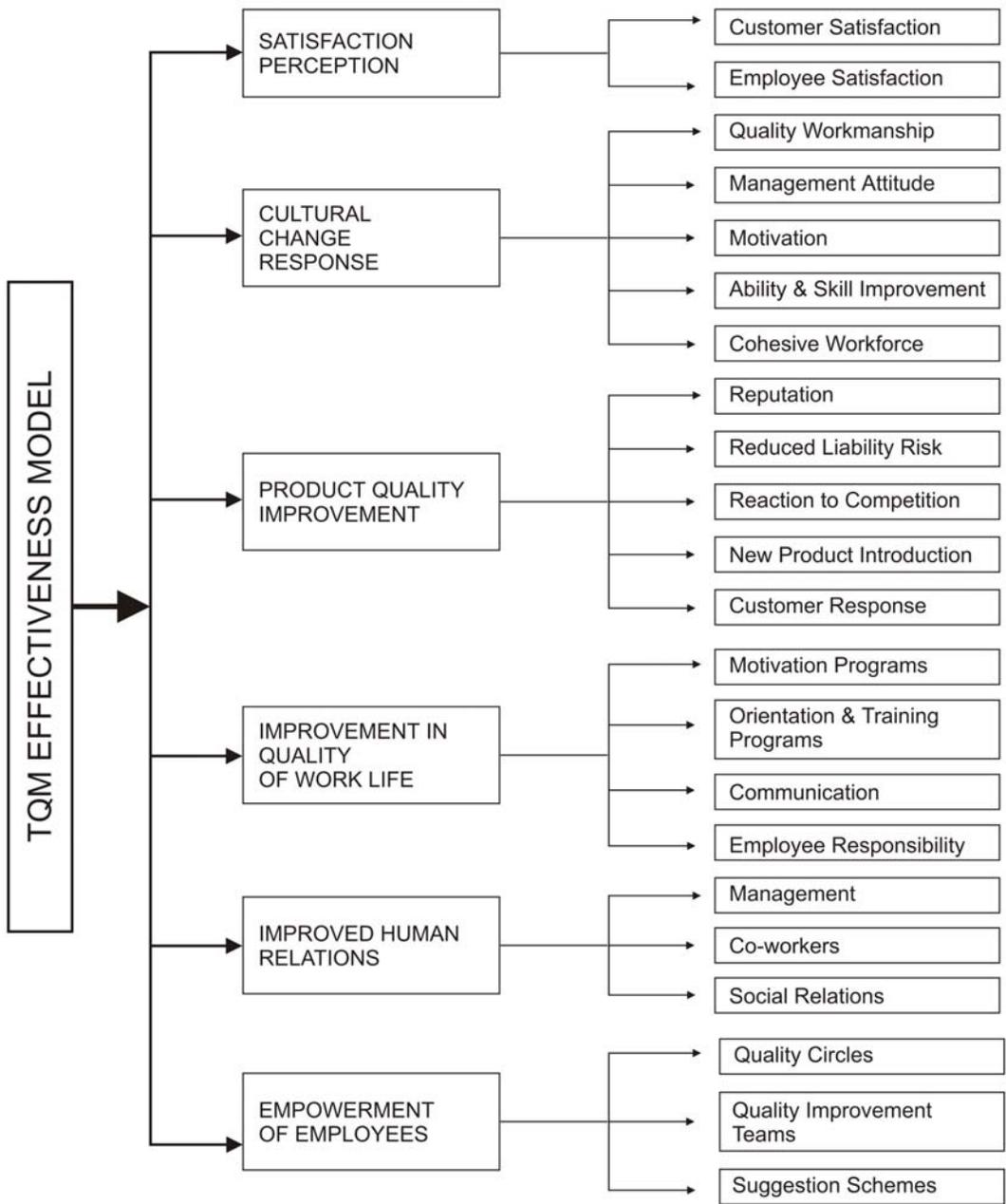
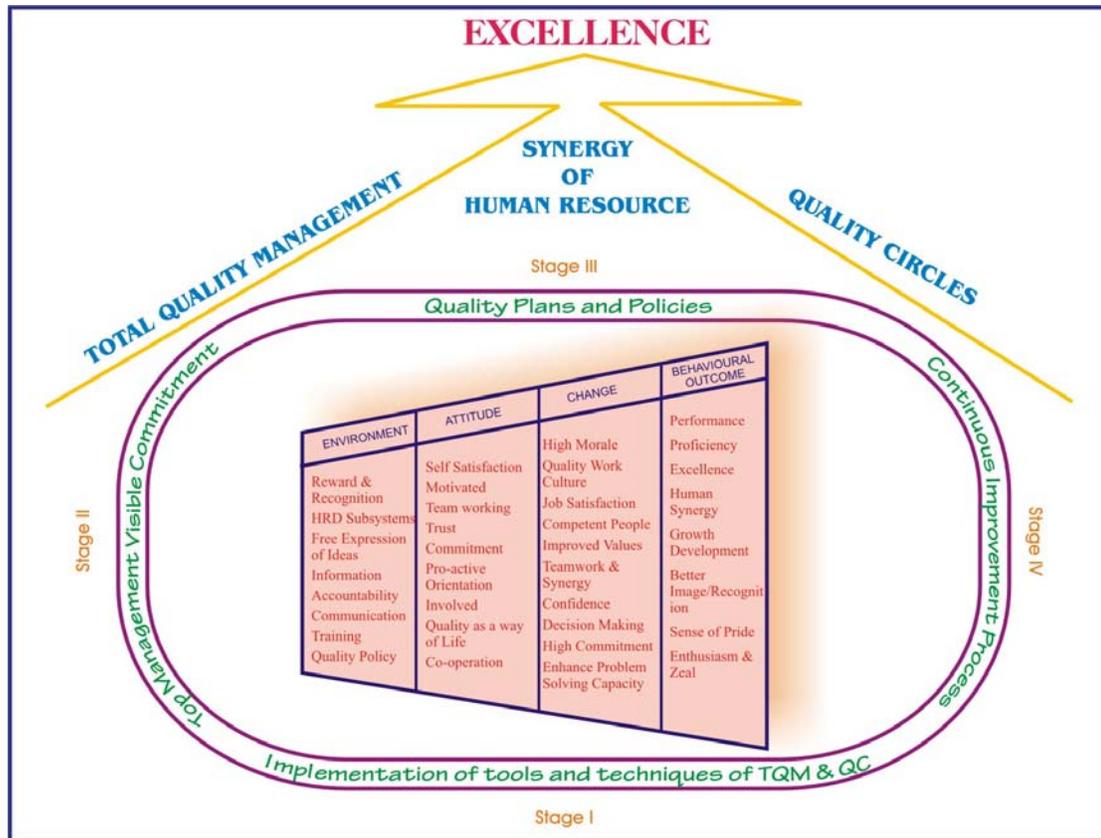


FIG. 1 TQM EFFECTIVENESS MODEL

## Conclusion

Most Asian countries are currently struggling through a traumatic economic scenario. Organizations are concentrating on survival into the 21<sup>st</sup> century. It is clear that only those organizations with the courage and capability to use quality as a competitive tool will succeed. TQM has played a major role in implementing the quality component. It has acted like putting a roof on the house of quality. Fig.2 aptly depicts the model emerged for synergizing human excellence through TQM & QC



## Synergising Human Excellence through TQM & QC

FIG. 2: SYNERGISING HUMAN EXCELLENCE THROUGH TQM & QC

Approaching the humanistic elements through TQM has shown a new face of TQM, which is able to boost new synergy, enthusiasm and zeal among the employees. This is clearly visible in both the organizations selected for the study. This new face of TQM is capable enough to stop questioning on the validity of TQM and recharge the whole system of an organization to once again revive the TQM as one of the major management strategies. This humanistic approach of TQM could give drastic returns in western countries as well as in developing countries like India.

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# The Link between Employee Benefits and Motivation – Conceptual Model for Slovakia

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## Abstract

Attracting and retaining talent is a key challenge for organizations today. The essence of this challenge makes the understanding of the employee side of psychological contract imperative. Additionally, it aids in developing and sustaining a competitive advantage within the human resource management systems. Two specific areas, where the comprehension of employee desires is critical are benefits and motivation. A successful understanding of the link between employee benefits and motivation leads to individually tailored benefit plans which further result in higher employee satisfaction and retention. It is a general belief of economics that incentives improve effort and performance, but in psychology, their effect is much more controversial. The objective of this article, rather than suggesting a solution to this controversy or providing evidence to support either side of the argument, is to propose framework for a quantitative model to determine the optimal compensation package satisfying the needs of employees.

## Introduction

Today, attracting and preserving talent in organizations is becoming more and more difficult. The challenge of retaining organizational talent makes it imperative that companies understand what employees want from employment relationships. Once obtained, that understanding becomes a key to developing and sustaining a competitive advantage.

One of the most frequent answers to a question ‘why people work’ is ‘money’. However, people work for more than money. When asked, most employees invariably respond that cash compensation does not top the list of what they value the most. While competitive, performance-linked compensation is necessary to keep employees focused and interested, the fact is that for most employees, the value proposition includes a great deal more than just hard cash. Employees consider their employment choice more like investors consider their options. They invest their commitment and talent and thus expect a reasonable return on their investment through the rewards of work: affiliation, meaningful job content and the opportunities for a career, direct and indirect financial rewards. Moreover, they derive value from their affiliation with or simply belonging to their organization; their opportunity to pursue a career; the satisfaction of making an impact through meaningful work that is also recognized and benefit programs that help make them feel secure.

When concentrating on employer preferences in determining desirable components of a benefits package, one can argue that they are affected by a large number of factors. The most obvious and usually adopted by managers is the costs of such a package. Additionally, the second important concern for the employer is the issue of tailoring the benefits package precisely to the needs of the employees. Finding the link between employee desires and employer ability to provide the fulfillment of these desires leads to establishment of a strong psychological contract.

It is a general belief of economics that incentives improve effort and performance, and there is a lot of evidence that they often do (e.g. [3], [5]). Contingent rewards are perceived as ‘positive reinforcements’ for the desired behavior. In psychology, however, their effect is much more controversial. A long-standing paradigm clash has opposed the defenders of the economic view to the ‘dissonance theorists’, who argue that rewards may actually hurt performance, making them ‘negative reinforcements’, especially in the long run (see, e.g. [9] for an account of this debate, and [1] for a comprehensive meta-analysis of experimental results).

The concept of employee benefits as known in Western Europe is a new phenomenon in transition economies of Central and Eastern Europe. The development of ‘new’ compensation systems in this region have been in the last fifteen years more focused on a adaptation of ‘western’ models with a growth in usage of pay-for-performance [10] where seniority matters less than ability to perform along with decline of average age of managers,

and more mobility between jobs ensuring equity and fairness. Furthermore, aspects of performance management have been successfully implemented into the human resource management systems in the region and are frequently used as the key tools to increasing employee motivation [8].

Today, however, the attention should be turned to the employee benefits from the motivational point of view. A successful understanding of the link between employee benefits and motivation leads to individually tailored benefit plans which further results in higher employee satisfaction and retention and thus contributes to identifying the human resource management as the source of competitive advantage. In a tight market for talent that is mobile and short in supply, organizations have to pay close attention to the employee preferences. Otherwise, they lose the talent war. This concept links benefits to individual motivation factors and points to the relationship between employee satisfaction and benefits package being tailored to employee needs. There is no doubt, that pay is an important factor of extrinsic motivation, which, if used incorrectly can undermine intrinsic motivation. On the other hand, even the best use of pay can not motivate employees, because they perceive the salary and benefits as an entitlement, not an incentive [2]. It is in the interest of organization to avoid employee dissatisfaction and offer the compensation package that best reflects the needs of individual employees.

Hence, the objective of this article is to offer a framework for a quantitative model, which would allow employer to determine the optimal compensation package in order to satisfy the needs of employees, thus reducing job dissatisfaction and creating strong basis for acquiring the motivated workforce. It is necessary to remark, that this work does not consider compensation as sole source of neither motivation nor dissatisfaction, but for the purposes of creating the model, compensation was perceived as the only extrinsic form of motivation and the intrinsic forms are avoided. The goal is to pay people well and fairly, much in accordance with [6].

## Model Proposal

Let us assume, that an organization offers a compensation portfolio consisting of a cash compensation  $C$  and a single benefit  $B$ . Suppose  $B$  and  $C$  are both measurable and dividable into indefinitely small fractions. One could object, that having a single benefit in a compensation portfolio is nowhere near reality, but this can be quite quickly avoided by stating that it serves only for the purpose of simplification and is by no means a limitation to generality as  $B$  can be easily expressed as  $n$ -dimensional vector. In that case only slightly more difficulties in the following analysis is to be expected, as it would deal with  $n+1$  and  $n+2$  dimensions instead of 2 and 3 described in the text. The condition concerning divisibility of both variables is not necessary to find the solutions in real cases, it is just helpful in gaining analytical solutions instead of numeric ones.

In order to describe the relationship between compensation and motivation in the most general possible way, there is a need to define an auxiliary variable, which in this text is called utility. The utility  $U$  is to be defined as the perceived value gained by the employee by receiving certain compensation portfolio. From opposite point of view, utility can be described as the amount of performance employee is willing to give away for the compensation provided. This amount, however, does not have to be equal to his actual performance. Just imagine someone willing to work 6 days a week, but he is only required to work 4 days in order to reach the limits for this level of compensation. Of course, he will work only for four days and keep the change. Utility therefore can be described as the maximal possible performance on the given level of compensation. Reaching this maximum is the matter of well-designed pay system in an organization as well as other forms of motivation. In our model, however, only one of the extrinsic factors of motivation, compensation, is dealt with.

The natural thing to do now is trying to find out how to raise the utility by some required amount. Obviously, there is the possibility of increasing the amount of one part of the compensation portfolio until the desired increase in utility occurs. The solution would be raising benefits by some  $\Delta B$  or compensation by  $\Delta C$ . Consequently, while using the combination of both, the solution would be raising the compensation by  $\Delta = \lambda \Delta B + (1 - \lambda) \Delta C$ , where  $\lambda$  is any number from the interval  $0 \leq \lambda \leq 1$ . If drawn, this relationship describes any point on the line segment from point  $A=(0;\Delta C)$  to point  $B=(\Delta B;0)$  (Fig. 1).

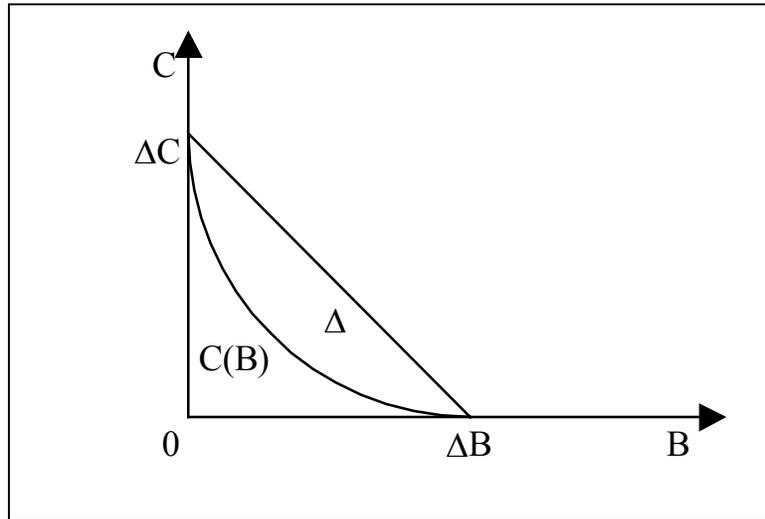


FIG.1.Possible relationships between B and C

This is where the employee preferences step in. It is quite reasonable to suppose that the utility of every unit of cash or benefits added is smaller than the utility of the previous one. Therefore, for the first unit of benefits, the employee would give up more cash than for the second, third etc. Thus, one can easily observe, that the real solution for combining both parts of compensation to achieve desired increase in utility can not be  $\Delta$  as described above. Instead, the result is a smooth curve shaped similarly to the one in Figure 1.

Determining the exact parameters of this curve, which would involve finding a function describing all the possible ways of increasing utility by a desired amount is a task that has to be performed empirically. Probably the best way to collect the data necessary for creating such a function would be changing the compensation in an organization while keeping other variables constant and observing the relationship between these changes and productivity. Unfortunately, this approach seems to be quite impossible to conduct, as the compensation is highly sensitive area in every organization and is unlikely to be used for research purposes. Moreover, it is highly probable that quick changes in compensation, required by this method, violate the condition of keeping other variables constant, as they certainly reduce the perceived fairness of compensation system as well as security feeling of employees.

Another possible way of collecting necessary data is the determination of employee preferences by questionnaires. Though the outlooks of collecting data this way are much brighter, a reliable questionnaire that would truly and faithfully reflect employee preferences in the manner that is useful for constructing our function is still to be created.

From now on, the function describing all the possible combinations of B and C that will cause utility raise by a unit will be referred to as  $C(B)$ , which is amount of cash dependant on the amount of benefits. Of course, it is possible to construct this function as an amount of benefits dependant on the amount of cash, but this is not important, as the decision concerning which of the variables is independent depends only on the free will of the creator and will have no influence on the final result whatsoever.

It seems probable (almost certain) that  $C(B)$  will be defined on the interval  $\langle 0; \Delta B \rangle$ , range of values would be interval  $\langle 0; \Delta C \rangle$  ( $B(C)$  defined on  $\langle 0; \Delta C \rangle$  etc. ). Note, that  $\Delta B$  and  $\Delta C$  are positive values, but do not have to be finite. In extreme cases, it seems probable that no amount of any form of compensation added can reach that extra unit of utility.

Going on with the features of function  $C(B)$ , it is easy to see it is monotonously declining, continuous, smooth (thanks to infinite divisibility of B and C) and convex in every point of the definition range. Despite the hopefully temporary inability to determine the  $C(B)$  function more precisely, it is possible to continue with the analysis. The reason for such an analysis is quite obvious: the precise parameters of  $C(B)$  are dependant on the

individual preferences of every employee and these are undoubtedly related to their current compensation level and their current structure of compensation portfolio. These changes in preferences caused by the current standings in compensation can be once more traced back to the diminishing utility of every unit of any form of compensation added.

Therefore, it seems useful to create a function that would describe the dependence of utility on both parts of compensation: cash and benefits. For this purpose, it would be most useful if such dependence could be obtained in all the points, in other words all the possible combinations of benefits and compensation. This is obviously impossible simply because of the infinite number of such combinations. Even approximation (using finite number of points) can be hardly practical, because the absolute value of utility is hard to obtain, unless it is put equal with productivity. Though the simplifications and assumptions in the model may be tempting, one can argue that this is not acceptable, because it denies other possible forms of motivation influencing productivity. That is why another approach has to be applied.

Suppose there is a possibility to determine an exact expression describing the function  $C(B)$  for one individual employee. Consequently, it is quite easy to create a function describing the same relationship for a group of employees. Whether this will be an aggregate or average of individual functions depends on the will of the analyzer, but average seems more appropriate.

Thus, it is possible to determine, what change in compensation portfolio is needed to increase utility by a unit. If it was possible to do so in more points (described as unique combinations of  $B$  and  $C$ ), certain set of functions would be obtained and this set could be used for approximating the sought for function. It seems very probable, that the required points could be gained by grouping together employees in similar positions, but slightly different pay. Individual  $C(B)$ s of these employees, properly averaged, could serve as  $C(B)$ s of one employee in different points and thus providing the means to create the function describing the dependence of utility on cash and benefits.

However, this newly acquired function would only describe how much it takes in order to get from one level of utility to another. What it lacks is some absolute reference, therefore it is impossible to express utility in absolute numbers. The solution to this is considerably easy: reference point has to be set. There are two main possibilities for doing this. First one, more practical, is to consider the utility of the lowest-paid employee in the group to be zero. The other possibility is quite reasonable assumption, that the only point in which  $U=0$  is when  $B=C=0$ . Following this assumption, it is necessary to find the  $C(B)$  function in this point.

Choice of the reference point is completely on the free will of the analyzer, but let it be reminded, that it is absolutely necessary in order to gain the desired function and the possibilities mentioned here are just two of the most obvious.

The function, describing the dependence of utility on both cash and benefits (marked  $U(B;C)$ ) will probably have following features: defined on  $\langle 0;\infty \rangle \times \langle 0;\infty \rangle$ , monotonously inclining in all directions on the whole definition range, converges to a finite value for  $B \rightarrow \infty$  and all  $C$  as well as for  $C \rightarrow \infty$  and all  $B$  (Fig. 2).

## **Cost Effectiveness**

The analysis of employee preferences is finished. However, it can not be satisfactory for an organization. The problem is, if one tries to maximize utility according to the model outlined above, one would come to conclusion that it is, according to the features of the described function  $U(B;C)$  necessary to offer infinite amount of cash as well as infinite amount of benefits. These costs, letting aside absolute financial impossibility, can be by no means covered by the returns offered by the employee. This calls for the determination of effectiveness. The basic question is: what structure of the compensation portfolio is the most effective one?

The first step is to determine the costs paid by the organization. This should be relatively easy, as every company has a precise idea of how much it pays for every form of employee compensation. When the costs are determined, one of the following approach can be chosen:

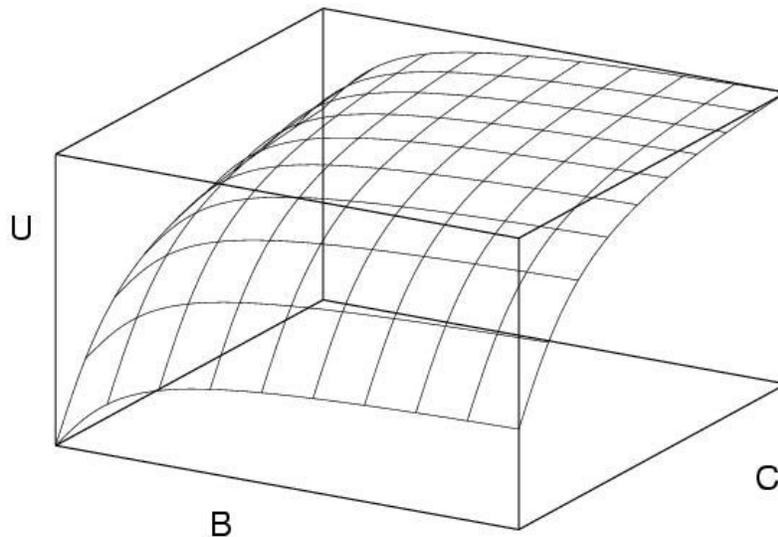


FIG. 2: A POSSIBLE SHAPE OF  $U(B;C)$

1. Determine the level of utility desired and find the combination of cash and benefits that is on the desired level and at has the requires possible costs. The advantage of this method is, that there is practically no need to find the  $U(B;C)$  function, because everything needed is obtainable from the reference point set at current compensation portfolio and  $C(B)$ . The disadvantage is, that utility is considered a priori measurable, what inevitably leads to the assumption, that the employee is motivated only by compensation.
2. Determine the maximum affordable costs of compensation and find the maximal utility for this amount of costs. The disadvantage here is that it is slightly more laborious, but the assumption of “utility equals motivation equals productivity” is lost. Utility in this case is really what it should be: an auxiliary variable describing one of the motivation factors.

There is a third possible approach: to add B and C until the costs of the last unit added are lower or equal to the return of the last unit of work, the employee is willing to give. This approach is even more difficult and meets the same problem as the first one: the necessity to accept compensation as the only form of motivation. These are the reasons to consider this approach acceptable but unsuitable.

### Limitations and Further Research

It is necessary to admit some limitations of the proposed method. The first objection is usually “averaging” people. This approach is based on the belief that similar people have similar needs and is used as a tool of simplification. It is possible to avoid this problem and create the needed relations individually. However, this approach seems so labor and time demanding, that the slight change in results can not justify this waste.

Another possible objection is relating motivation to productivity too much without the concern for quality. This is true, but it is hardly possible to expect a discussion on quality from a quantitative model. And quality is very much influenced by intrinsic motivation, which is completely out of the scope of this study. Probably the most important limitation of presented model is that it is static. It describes only one moment in time. A dynamic model,

describing the changes in compensation costs as well as employee preferences in time would be surely more interesting and more truthful. Logically, that is the way to go in further research. First, introduce a practical application of the presented model, then broaden the model to more dimensions by adding more benefits and finally (if it shows possible and soundly difficult) create a dynamic model describing the maximization of compensation portfolio effectiveness.

## Conclusion

In this article a framework model for the optimization of compensation portfolio was introduced. As it is vital to tailor the compensation to employees needs to reduce pay dissatisfaction and at the same time to keep the costs of compensation as low as possible in order to ensure profitability of an organization, these two conditions often seem contradictory. The presented model offers quite simple and not very laborious, while still satisfyingly exact method to deliver good results. It is the author's belief that fast and useful results are needed mainly in the area of Central and Eastern Europe. The main reason is that the concept of employee benefits is still relatively new to this area. Benefits did not evolve here in time as in western countries, but were brought in by the investors from the West. These investors (logically) brought their compensation systems with them. This does not mean they can not be functional, but still one can assume that employee preferences change from country to country, depending on (if nothing else) dimensions of national culture defined by Hofstede [4]. Moreover, Hofstede's dimensions have not been thoroughly examined in the whole area of Central and Eastern Europe, especially Slovakia (for an account on this, see [7]). It is not possible, however, to derive the employee preferences in compensation area directly from these dimensions. Therefore it seems necessary to identify these preferences directly and evolve (or modify) the compensation systems accordingly.

The presented model does not serve itself as an ultimate tool to ensure effectiveness of the compensation portfolio or employee satisfaction, it forms a basis for further examination. There is a need to conduct a more specific research in employee preferences as well as actual practices of organizations in the area of Central and Eastern Europe.

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# Trust as the Key Value of Successful Russian Business Leaders

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## Abstract

Russia is playing a significant role in world business therefore Western managers need sound knowledge of Russian organisational behaviour for effective communication with their Russian counterparts in international joint projects. This paper examines trust as the key factor of success among Russian business leaders. In Russia, a level of trust is so low that it was identified as the second largest threat to Russian organisations, after poor succession management. This study confirms the emergence of trust among Russian business leaders who recognise its crucial importance for the effectiveness of their business. This research presents five Russian managers from Yekaterinburg - the strategic centre of the Ural region of Russia- in the form of case studies, aimed at helping potential Western partners and shareholders extend their understanding of the leadership style, organisational practices and expectations of a broad cross-section of Russian business people.

## Introduction

Researchers who examining building partnership with foreign companies and international joint ventures (Inkpen & Beamish, 1997; Arino & de la Torre, 1998; Chatterjee, 1998, Dasgupta, 2000, Currall & Inkpen, 2002) have argued that mutual trust is crucial for successful international alliances. Dasgupta suggests that “trust is important because its presence or absence can have a bearing on what we choose to do, and in many cases what we can do” (Dasgupta, 2000: 330). Business transactions are influenced by “the atmosphere of trust in which they occur. Trusting that the other person will honor their side of the trade is fundamental to encouraging particular trades and economic activities in general” (Pollitt, 2002: 120). According to Chatterjee (1998), “successful business depends on relationships and trust rather than on contract.” As Currall and Inkpen (2002) noted, building trust is a particularly challenging task to achieve in international joint ventures because the normal risk and uncertainty involved in domestic joint ventures are strengthened there by cross-national differences between partner firms.

Western investors considering business engagement opportunities in Russia face different cultural environments and, therefore, need knowledge of institutional, managerial and contextual nuances, which include the managerial values of Russian business leaders. Furthermore, “the identification by Westerners of salient management values and attitudes helps predict and increase shareholder value when dealing with Russian organisations. An understanding of cross-cultural differences and corollary institutional configurations contributes to the increased success of those doing business in Russia and/or with Russians, and by extension those doing business with many of the former Soviet-bloc countries in Eastern Europe”. (Kets de Vries, Shekshnia, Korotov, & Florent-Treacy, 2004, p.640). This paper examines trust, as the key value of successful Russian business leaders.

The current level of trust in Russia is very low. As Russian sociologists (Afanassiev, 2002) have stated, a post-Soviet person does not bear the traditional communal mentality or socialists collectivism. Generally, he [post-Soviet person] is an individualist who counts on himself and people of his closest circle. According to Fukiyama (1996), the situation with trust in Russia is catastrophic. No one trusts anybody. This is aligned with the results of a study conducted by Kets de Vries, Shekshnia, Korotov, & Florent-Treacy (2004, p.648): “distrust is the second largest threat (after poor succession management) to Russian organisations”.

The reasons of such low trust include weakness of post-Soviet state institutions (Afanassiev, 2002, Gudkov & Dubin, 2002) and lawlessness of Post-Soviet time (Butler & Purchase, 2004). People cannot be sure that the law and the state would protect them. This forces them to form close personal ties and rely on trusting relationships – a phenomenon that has been found in other countries such as China and Italy (Fukyama 1996, Hamilton 1996).

Trust is one of the three elements of the Putman’s definition of social capital: “features of social organisations, such as trust, norms and networks that can improve the efficiency of society by facilitating

coordinated actions (Putman, 1993: 167). The last task – facilitating coordinated actions - has been vitally important to Russia in the period of transformation. Thus, researching trust can contribute into developing the concept of social capital in the Russian business context.

### **The Study**

This research built on the previous studies of Russian national culture (Afanassiev, 2001; Husted & Michailova, 2002, Gudkov & Dubin, 2002, Butler & Purchase, 2004); the factual data collected in Russia no longer than a half a year ago, and drew on the personal experience of the author who is Russian. In forming the factual data 18 face-to-face open-ended interviews with Russian managers from diverse cultural backgrounds were conducted, manager's behaviour was observed, several focus groups with Russian managers was conducted to get their consultations and feedback on the preliminary study's results. From the interviews and focus groups "sound" portrayal came out, that led to a multisided and detailed study of the outcomes of trust in the Russian business context.

In the academic and professional literature of the early 1990s, or published in the late 1990s – early 2000s and reflected the studies on Russian national business culture, there are many assumptions that all the newly rich Russians made their wealth by either "exploiting the mistakes of the Government" (Stiglitz, 2001), by getting assets from the former socialist's stage, via quick privatisation or via corruption. These perceptions are common, but in most of the cases they are inaccurate. This study proves the existence of new Russian business leaders whose success has resulted from their own efforts and who are guided by more than just political connections. The new Russians have designed "organisational systems and structures that draw on Western (or Asian) best practices yet remain uniquely Russian." (Kets de Vries, Shekshnia, Korotov, & Florent-Treacy, 2004, p.639).

Russian Business class is highly heterogeneous. There are many differences among Russian business people in terms of their ethnicity, age, education, professional training and experience, origin of their wealth, leaderships' style, the size and power of their companies. This study presents five Russian managers from Yekaterinburg - the strategic centre of the Ural region of Russia- in the form of case studies which are aimed at helping potential Western partners and shareholders to go beyond received biases to fully understand the leadership style, organisational practices and expectations of diverse business people.

### **Case Studies: A Profile of Diversity**

In designing this research, the choice was made to show the diversity and scope of the emergence of a new wave of young generation Russian business leaders and their attitude towards trust. Transformation of the Russian economy caused the birth of new industries which previously did not exist, such as information technologies and cellular phones, or were totally owned by the State such as banking or transport. The further establishment and development of these new industries would not be possible without new business leaders.

The group of Russian Business leaders, examined in this study, is very heterogeneous and unpredictable. This article provides a profile of business leaders of similar age group but the way in which they entered the business has different features. The five leaders have different professional expertise and experience. Some of them - Maxim Grokhulskiy, Oleg Bannykh, and Alexander Korjev - own their companies, others – Olga Zotova and Denis Michailov work at senior positions in well established large private companies. Two of our leaders – Maxim Grokhulskiy and Oleg Bannykh have closely followed their university specialisation, others had to find other areas of expertise and get another type of formal education. Four of leaders have an engineering degree. Many undergraduates in Communist Russia chose an engineering profession because this profession guaranteed them a stable income and a respected job. Not to mention, the fact that Russia has had an advanced education in the technical area. In the market economy, demand for engineering profession has declined due to the industrial production's fall. Many engineers had to retrain and to get an expertise in other areas, such as Olga Zotova.

Three out of the leaders in the study own their companies and established these companies using their own savings, from scratch. This fact sharply distinguishes them from the entrepreneurs of the first wave who were granted their wealth by the state. Two out of the leaders – Maxim Grokhulskiy and Alexander Korjev- have fluent English and the experience of working abroad, however they see their future in Russia. All the leaders are very enthusiastic about their job and count on the people who work with them. They all can be called self-made people for their energy, the ability to start a new enterprise from "scratch" and the high level of trust which they have built within their circle of communication.

### **Olga Zotova, “Ural Treasures Bank”, JSC**

Olga completed her first university degree in building engineering and worked six years as an engineer- builder managing industrial projects. She refers to that time as a “great experience” and to her colleagues as “a wonderful team of soul mates”. In the early 1990s when the new Russian regime cut off all investment in industrial development, she, as well as other professionals at that time, lost their job.

In 1993 her new career started in a new structure of an emerging field of commercial banks - the Ural Treasures Bank. This operator job was found via her acquaintances from students’ network, some of whom worked in this bank. At that time, Olga knew nothing about accounting and therefore went to study it in the machine building college. After this study was completed, Olga got her first promotion to a senior manager position in the VIP room.

This was followed by her study by correspondence in the Russian Financial Academy (Plekhanov’s Academy). Olga stressed that “all senior managers of the bank studied there (in the Plekhanov’s Academy) in recent years”.

There were a number of other positions to which Olga was promoted before she took her current position of head of the division of bank products development. Recently, Olga completed her postgraduate study in the President Program (the program founded in 1998 to increase market competence of young leading specialists and managers of public and private enterprises). Olga is in her middle 30s.

Olga emphasised the importance of having “a strong backbone in their bank which has worked together for ten years” (Zotova, 2004). “This means that we are not afraid of any crises at the moment. We will resist to the end. We have experienced together so many shakes to our stability; we survived the financial crisis of 1998. We went together through serious shocks and crises and many new people joined the bank. The best personal available for banking in the Ural region joined the bank. This means something.” Olga explained that they do not have a command style of management in the bank. There are many opportunities for people to grow and develop their career by opening new branches or divisions. “We are constantly learning through various courses for banking specialists, the President program etc”

Olga pointed out that good relationships with external parties such as the bank’s partners, built on mutual trust, “can work as a good deal”. The positive image of the bank leader also contributes to business success: “Everyone knows that he (the bank’s general manager) works here and even if he does nothing, it (his good image) would be useful”. Olga explained that if the bank’s manager has a good image, this increases a level of trust to the bank from potential as well as existing clients, and thus, makes stronger its competitive position.

### **Maxim Grokhulskiy, Software Mastering, LTD**

Maxim holds a computer science university degree. He worked as a high school teacher, running programming classes, before signing a contract with a company in the USA for a few years. As his contract expired and Maxim came back to Russia, he called his friends and “like-minded people” and offered to organise a new company with the focus – provision programmes of information management systems. Maxim and his friends did not have much capital at that stage, neither had they support from elsewhere. The company was established on the private savings of Maxim and his close friends. Maxim recently completed his postgraduate study in the President Program. He is 31 years old.

Maxim noted that for the company’s success it was very important from the beginning for people to believe in their ability to succeed. Another key issue is proactive cooperation with the company’s partners. As Maxim said, its company tries to do joint projects if these projects are too large to be undertaken by the company on its own. Maxim can trust the partners because, as he explained, “Yekaterinburg is a relatively small city in terms of computer technologies and I know personally those who work in this field. I have dealt with computer technologies since their appearance. I am 31 years old now and I started when I was 19. There is a very small circle of people with such experience in this field.” (Grokhulskiy, 2004) Such a close circle of communication makes it easier to obtain useful information. For example, one source of information is the specialists in computer technology. As Maxim explained, “those are people who work in companies – users of programming services – such as factories, industrial enterprises and other companies... Those informal relationships are more open than some formal relationships. We receive important information from the experience of those people.” Such constant communication with professionals from

close circle of communication helps Maxim to be always aware of the needs of potential customers and the coming trends of the market of computer technologies.

Maxim stressed that his firm significantly values the security of their customers. The company struggles to do everything legally. For example, recently the company registered their trade signs and other intellectual property. This was the matter of “doing legal things.” As Maxim explained, “the whole [economic] situation has changed in Russia. And now it is crucial to present to the customer that we are serious and we are not going to close down. We want to show our customer that our technologies are long-term oriented.”

Last but not least, the important issue that contributes to the company’s success is having a strong team of talented people. As Maxim noted, “Program development involves close interaction among people. Firstly, they need to find a solution. Anybody who comes up with a possible solution must prove it to other people that it works. At the same time, they should be able to listen to the critique of other people, even if it is not very constructive. Thirdly, they should be able to look critically at their own solution. Finally, when the decision is made, they have to perform it.” Maxim admitted that they have some difficulties working in the team environment. One talented programmer did not fit in the team therefore they had to sack him and still did not find a replacement. Maxim suggests that to work as a team, “one has to be able to communicate with people and help them and not be ashamed to ask for help. People should complement each other. Everyone needs to put effort into the team – both emotionally and psychologically. If people can put those efforts, then the team is united and people there can rely on each other.”

**Denis Michailov, Ural Tel**

Denis is an electronic engineer. He has an extensive experience in FSB in the field of electronic crime. In the late 1990s Denis’s expertise was required by a new company of another emerging industry in Russia – cellular phones. From that time, Denis has been a manager of informational security of Ural Tel, a region’s leading cellular phone company, providing the GSM standard connection. He completed his postgraduate (Russian equivalent of Western Master) study in Management in the late 1990s. He is in his early 30s.

Denis stressed that for the company’s success, the experience and the personality of its director played crucial role. The company’s director had previously managed the telephone division of the government’s company and therefore had necessary knowledge of the work and had been known in the industry. The company managed to win a tender conducted by the government institution, responsible for distribution of the frequency plan as a result of these factors. The government officials knew that they could trust this person [the company’s director] and his team.

The cellular phone industry is one of the fast growing in Russia yet it is a very competitive. The issue of constantly monitoring competitors is a very serious concern. Denis explained that getting the right information about competitors and customers determines the company’s security. To a large extent, old trustful connections or so called “smoking room effect” (Michailov, 2004) help to obtain the right information: “It is the Russian mentality. If you have a good, positive relationship you can obtain certain information without much effort. It is a postulate of officers of the criminal investigation department. So it is important to establish informal relationships. Some questions could be of a sensitive character, or they should be kept as a secret. Certainly, there are limits. There are certain rules [in informal information exchange] that should not be forgotten.” (Michailov, 2004). Answering the question regarding the accepted level of the information to “give away”, Denis said: “Frameworks are initially predetermined by the amount of damage that any of the parties could bring”. He emphasised that the principle “do not hurt” is used extensively when professionals exchange their information informally. A professional always knows that he or she can trust those to whom he or she is passing important information. Thus, trust helps to ensure the security of informal information exchange.

**Oleg Bannykh, Lex- Information Technologies.**

Oleg is an electronic engineer. He was a pioneer of promoting Automatic Systems of Management in the early 1990s. Oleg gained his first professional experience in a former state enterprise and soon established his own company from scratch, using his own savings. Recently, his company merged with the company of a former partner. Together, they have become a strong player in the rapidly growing information technology market in Ural. Oleg holds a postgraduate degree (Russian equivalent of Western Master) in Management. He is 37 years old.

The recent merger of two companies which have had partner relationships for many years clearly shows that partners trust each other enough to work as one company. Answering questions about the reason of their merger, Oleg and his partner noted that economic reasons are secondary. “We are united by one goal. We are

interested in what we are doing. In our company, we do not have a clear leader; everyone works on one common goal. No one feels like a small screw, everyone feels like a pavement” (Bannykh, 2004) Oleg emphasised the importance of trust in business, not only within a company but also at the interfirm level. “We are now working with Expert Ural [the regional edition of the National journal for Russian business elite] on the issue of self-organisation of middle business in the Ural community. This organisation should undertake strategic development of the Ural region. Why? Our government officials did not do this. [There is The Committee for Economic Development of the Ural region within the Government of the Sverdlovsk region]. Large corporations do not think in regional terms, they are spread all over Russia. Small companies have grown to be middle sized companies and feel responsible for the regional development.” Oleg continues with idea of consolidation of the middle businesses of the Ural region by stressing out the importance of interpersonal trust. He believes that interfirm trust can be achieved via interpersonal trust of the companies’ leaders. “When 50 leaders get together and trust each other, they do need to check each other’s calculations [price structure]. If you say that you cannot sell it cheaper, then your word is enough for us.” Oleg thinks that trust can be built only via informal communication and not via formal such as publishing an annual report officially. “Even if a company publishes their annual report, they can hide certain things and associated costs... They may state that this bank will be stronger than another one in five years, but people [the general public] will not believe such a statement. Today we need to increase trust in each other and it may be possible at a personal level via informal communication only”

**Alexander Korjev, Yekaterinburg Travel, LTD.**

Alexander has very extensive business experience. At the end of the 1980s during Gorbachev’s perestroika, Alexander had a cooperative – an organisational form promoted by the state of that time. His cooperative dealt with a scarcity of popular music providing semi-legally taped audio and video tapes of popular groups and singers. After a serious limitation of this business by a number of laws, Alexander worked as a private tutor in English and German before he went to visit his friend in Brazil. After various jobs there, Alexander returned to Russia and worked as an English/Russian interpreter. When his friend asked him to help with the translation of her personal correspondence to her American fiancé and later with his reception in Yekaterinburg, Alexander discovered his market niche – hospitality services for foreign guests of the Ural capital. A little later a comprehensive website with all the information for potential foreign guests of Yekaterinburg was created. Currently Alexander is the director of his company. He is in his early 30s.

According to Alexander, the Russian business is developing so rapidly that businessmen have to constantly learn on their way. “We were growing up during perestroika. The situation in Russia has changed several times since those times. We had to adapt to all these changes.” (Korjev, 2004). The most important issues that arise nowadays are honesty and decency. As Alexander noted, “It is difficult to get into business working privately and not fooling people...On the other hand, good image, publicity and trust can bring us new customers. The person who needs our services will not go to another company because he knows and trusts us.” Alexander emphasised this aspect of trust as a factor in attracting new customers is especially important for small and medium size companies who, as opposite to large travel agencies, cannot afford an extensive advertising.

**Finding Common Ground**

Despite the obvious heterogeneity of background among the examined Russian business leaders they have similar qualities and attitudes to business people everywhere in the world: they are struggling to succeed, they are concerned about security of their respective jobs, partners, customers and the community; they are future-oriented. Furthermore, Russian business leaders can be differentiated from businessmen in other parts of the world in the specific Russian mentality which affects their managerial style. These Russian businessmen did not get their wealth from the previous regime or through mafia connections. Success of the examined leaders was determined by their optimism, the ability to adapt their talents to the continuously changing environment, by emerging trust both within their companies and in the interfirm communication.

All examined managers admitted that the current level of trust in Russia is very low. Although building trust is a very challenging task, all examined managers expressed a high degree of recognition of the importance of trust as the key success factor of their businesses. In this study, examination of the case studies of Russian business leaders led to the formulation the following outcomes for the company’s success which can be achieved by having trusting relationships.

### *The outcomes for the company's success which can be achieved via trust*

#### **Outcome 1: Effective Team Cooperation**

For company stability and development, it is crucial to have a team of like-minded people who trust and support each other despite any negative influences from the business environment. The transformation processes in Russia have thrown serious challenges to the business class and only those who have formed strong relationships with colleagues, partners and customers, who have long-term oriented goals, manage to survive and become successful.

#### **Outcome 2: Effective Interfirm Cooperation and Regional Management**

Trust among business leaders at a personal level makes their communication easier and more effective, yet it helps to solve the regional problems and enhance regional development. The leaders feel responsible not just for the progress of their own companies. They realise that their future is inseparable from the future of the territories in which they live and work.

The desire of middle sized companies' managers to influence regional development via interfirm networks confirms the increased independence of Russian people from the weak governmental institutions in solving their problems. According to Russian sociologists, since the end of 1990s, most Russians have been convinced that the best way to succeed in life is to use one's personal connections (Afanassiev, 2002). In the 1990s, the number of respondents oriented on personal connections increased from 74% to 84%. Another study (Gudkov & Dubin, 2001) found out that 29% of Russians used personal connections with the state officials or with professionals, connected to state institutions that use these competencies for personal gains. This number is three times higher than the number of people who applied for help from state institutions. This statistic shows that Russians do not rely on the state in creating their wealth and value personal relationships and trust for their success.

#### **Outcome 3: Strong Customer Base**

The positive image of the company's leaders and earned trust of existing customers and the general public significantly contribute to the attraction of new customers and work more effectively than the advertising. The general public and potential customers do not believe in advertising due to a low level of trust. They do believe, however, in individuals and organisations that live up their promises by their actions.

#### **Outcome 4: Effective Information Exchange**

Information exchange and knowledge sharing have always been difficult due to the national mentality ("The less one knows, the better he sleeps" as a folk saying reveals), mistrust and misinterpretation of received information, and knowledge hoarding (Husted & Michailova, 2002) in Russia. People are more confident to share information with someone they can trust; therefore trust can significantly improve information exchange and overall effectiveness of operations at a firm as well as at an interfirm level.

#### **Outcome 5: Long-term Security for Firms, their Partners and Customers**

Companies' stability and the orientation on future require long-term relationships with their customers, partners and the general public. It is very important to prove to these parties that the company will not be closed down and will be there for those who are engaged in business with it. Trust can enable companies to plan ahead and, therefore, be more flexible and creative.

#### **Future Research - Incomes of the Process of Trust**

Considering the complex business environment, knowledge hoarding and mistrust, Russian managers and entrepreneurs are not very enthusiastic in participate in business research projects. They are resistant to give away specific information and examples about their companies, partners or customers. The cases presented in this paper are the results of collaboration between examined business leaders and the author of this paper. These cases can encourage other Russian business leaders to cooperate with both Russian and foreign business researchers.

In the recent years, Russia has become a significant participant in the world economy. Despite this, Westerners have not much knowledge about Russian business people and their organisational behaviour. Given the importance of understanding the managerial values of Russian business people which include the emergence of trust as a process, the next research issue should be studying the inputs of this process.

In their study on trust in international joint venture relationships Boersma, Buckley and Ghauri (2002) stated that "the emergence of trust is a process. Every process has inputs and outputs". This paper outlined the outcomes of trust for business success. The incomes of the emergence of trust should be the focus of following studies. It is important to recognise the sources of trust in Russia and answer the following questions: How do

Russian business people build their relationships with their partners? How can people be sure who they can trust and for how long? How do people keep and secure their relationships? How can Western managers build trusting relationships with Russians? Can Westerners and Russians trust each other?

Last but not least, researching trust as one of the elements of social capital can help to clarify the issues: How can business increase social capital? How can society increase the amount of social capital?

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# **Workplace Counselling Downunder: Caring HRM or A Licence to Print Money?**

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## **Abstract**

**Several Australian studies have highlighted to exponential development of workplace counselling programs in Australia. An explanation of this development is provided along with survey results taken across a large number of organisations across Australia. The paper concludes that such programs may well claim great success but there is a serious lack of program evaluation to support these claims.**

## **Introduction**

A quick perusal of current HRM texts indicates that the subject of workplace counselling tends largely to be ignored by most authors. Indeed, employees are counselled from the day they join an organisation to the day they leave yet most of this counselling is informal. In the past there has often been no logical or structured policy and strategy in place, let alone a consistent approach to counselling issues. Up until ten years ago most small- to medium-sized Australian organisations had no formal counselling programs in place. However, the 1990s and onwards have seen an exponential increase in the establishment of such programs with some 80 of our top 100 organisations now having a formal, outsourced workplace counselling program in place.

## **What is Workplace Counselling?**

In counselling, a relationship is established where one person endeavours to help another to understand and to resolve a problem, whether it be work-related or personal. It must be a confidential and professional service provided as an employee benefit which complements and extends in-house resources in the constructive and supportive management of people impacted by concerns in their personal and work lives. (Meganahan, 1989).

These definitions immediately raise the issue as to the role of team leaders and HRM professionals in the counselling process. Employee counselling must always focus on work performance. Personal issues that are not affecting the employee's output are not the business of business and managers need to understand this critical aspect. The exception to this principle is where the employee seeks the assistance of the team leader or HR manager. Thus, the viewpoint adopted in this article is that personal problems not affecting work performance are not the business of the organisation. Only where performance is in some way affected should the supervisor intervene. (Compton, 2004)

## **Who is the Problem Employee?**

While many authors talk of the 'problem employee', it should be made clear that this terminology seems to imply that an employee's private troubles invariably will somehow be the business of employers. In times when diversity management literature uses terms such as 'hearing-impaired', 'intellectually impaired', and 'physically impaired', it seems appropriate to talk of the 'work-performance-impaired' employee. The sole aim of the employer in this situation is to bring a worker's performance back to an acceptable standard. (Nankervis et al., 2005) The emphasis of any remedial strategy must be on work performance and nothing else.

The simple solution might be to discharge the worker, but this approach may not be appropriate for a number of reasons, the most compelling being that the employee may be worth saving! The 'problem' employee may well be a key member of the management team.

In a recent interview with a group of professional, external counsellors I asked that they provide a summary of their caseload over a typical four-week period. The reasons for referral covered the following broad areas:

- financial                      grief                                      gambling
- bulimia                        self mutilation                      post-traumatic stress
- anorexia                      workload issues                      cross-dressing
- substance abuse              suicidal tendencies                      pre-hospitalisation
- self-image                    terminal illness                      workplace stress
- outplacement                organisational change                      workplace bullying

It should be obvious to managers that any attempt to provide counselling for most of these issues will be well beyond their level of competence. They will often cause far more problems than they resolve.

## **The Emergence of Employee Assistance Programs (EAPs)**

Many Australian organisations have established Employee Assistance Programs (EAPs) to provide free professional, confidential counselling to their employees and their families. Examples are the multinationals DuPont and 3M, large Australian companies such as Lendlease and Qantas, retailers Coles-Myer and Woolworths, the emergency services, hospitals and local government instrumentalities, several banks including NAB, through to organisations as diverse as Greenpeace and NIDA. In 1999, IPS – Employee Assistance Global, one of Australia's largest providers of EAPs, established an EAP for the Sydney Olympics to cover both fulltime staff together with the 5000 volunteers involved. Australia's other largest supplier of counselling programs, Davidson-Trahaire CorpPsych, has similar programs in place and between the two companies some 80 of the top BRW 100 companies now have a structured, outsourced program in place.

The growth of EAPs has been quite remarkable. The first documented program was set up by Macey's in 1917. (Porteous, 1997). In 1973, there were 500 programs in North America, by 1977 there were 2400, and by 1980 there were 4400 programs. By 2000, 80 per cent of the Fortune 500 companies had established EAPs. (Alker & McHugh, 2000)

In the United Kingdom the uptake of EAPs has been far more modest. Although 94% of companies report concern in the area of employee assistance, only 12% have active programs in place. Alker & McHugh, 2000)

In Australia, the history of EAPs is by comparison, quite short. As in the US, early Australian programs focused on alcohol and other drug problems. However, programs in Australia are different from those in the US.

In 1976, the Alcohol and Drug Foundation of Australia convened the National Alcohol and Drug Dependence Industry Committee (NADDIC), which was made up of senior representatives of the Australian Council of Trade Unions, the Confederation of Australian Industry, the Alcohol and Drug Foundation of Australia and the federal government. Because management and labour agreed jointly to combat the problems of alcohol and drug dependence in industry, funds were obtained from the federal government to commence coordinated programming. This national committee was mirrored at state level with management/union committees formed in every state and territory.

Programs commenced in earnest in February 1977, when the federal government made funding available for fulltime industry program coordinators (IPCs) and support staff to promote and develop industrial alcoholism programs. Unfortunately, in the first instance, Australia went the way of the US and tried to implement occupational drug and alcohol programs. This approach saw many organisations in Australia establish policies and procedures, but very few providing comprehensive services.

Not surprisingly, again this approach was unsuccessful. The lessons that had been learnt in the US during the 1950s and 1960s hit home hard by 1980. At this time, all the Australian players decided to change course and a new Australian EAP approach was adopted throughout Australia by 1984.

Since that time the growth in EAPs in Australia has been quite rapid. In 1984 IPS reported only a handful of EAPs in operation in Australia – NSW State Rail and BHP being the most notable. By 1990 there were approximately 500 programs, whereas in 2000 there were some 3000 programs conducted across the country. (Nankervis et al., 2005)

To some, EAPs can represent a ‘big brother’ meddling in employees’ private lives. (Vickers and Kouzman, 1999) To others, they are yet another management fad and a waste of time. A more positive approach is adopted by IPS, which sees an EAP as an effective strategy for assisting employees when personal or work-related problems are affecting their work. The programs are characterised by effective, early and minimum intervention. They offer a broad-brush policies and strategies and aim at resolving problems such as those listed above.

An effective EAP has to be more than policies and procedures; action must be taken to implement these plans. The second point that needs to be made is that EAPs cater for problems other than those affecting job performance. A person may self-refer to receive assistance with a personal problem that is not causing any deterioration in work performance.

It is important to note that the modern EAP aims at a wide range of problems. This approach varies from earlier approaches in the US, the UK and Australia where the emphasis was placed solely on alcohol-related, and later drug-related, problems. The modern EAP has resulted from the failure of earlier drug and alcohol programs. During the 1980s and 90s, there was a wide development of this EAP model. It offered a broader approach to problems, such as financial difficulties, emotional, marital and legal problems. The acceptance by employees and management was exceptional. The stigma of the alcohol programs was almost totally gone. EAPs offered free, confidential and professional counselling services to employees in the workplace for a wide variety of problems, including alcohol and other drug problems. Early intervention is the key to the success of EAPs.

## **Philosophy of the EAP Model**

The early drug and alcohol programs were largely seen to have failed in meeting their objectives both in Australia and overseas. The programs generated a great many policies and procedures, but little action. From these early attempts emerged four principles, as outlined here.

### **The Total Person**

One principle on which an EAP is based is the belief that organisations employ the total person, not just 40 hours per week of the person. Employees simply cannot – and do not – leave their problems at the front door on the way in and then pick them up going home. In addition, in most cases, employers are in many ways employing not one person but, indirectly, their partner and a number of children.

If it can be agreed that job characteristics play a significant part in an employee’s physical and mental health, then it is the total person who may need assistance from time to time. These problems may or may not be work-related but, in the final analysis, they may affect work performance.

### **Confidentiality**

Confidentiality is crucial to EAPs. There must be no doubt in the minds of employees that their participation in the scheme is totally confidential. Any breach of trust will destroy the credibility of the program. A consequence of this requirement is that the company will, in many cases, know neither who is seeking assistance nor on what basis. Similarly, if the problem involves a supervisor, EAP counsellors may find their hands tied as they can hardly approach that supervisor and still maintain confidentiality (unless written permission of the employee is obtained).

## **Reactive and Proactive Strategies**

The early EAPs tended to be reactive rather than proactive: action was taken after the problem became apparent. Employees either self-referred or were referred (voluntarily) to the program after performance had reached unacceptable levels. The belief was that if problem workers were recognised, aided and allowed to work out their problems, they would be salvaged and returned to a satisfactory position.

Today's EAP takes on both a reactive and proactive mode. Preventive services complement and extend the benefits derived from the program by advising on organisational methods to prevent personal or work-related problems and by actively promoting employee health, well-being and personal development. The types of programs offered can be broadly categorised into two areas: employee health promotion programs and employee development programs.

Employee health promotion programs address common concerns among employers, unions and employees. Programs include alcohol and drug education, stress management, heart disease prevention, AIDS education, and quit smoking campaigns.

Specialist employee development programs are available where recurrent preventable problems have been highlighted through counselling or other assessment methods. Specific courses are then devised to meet the needs of the organisation. These include the management of problems associated with the organisation, such as:

- occupational trauma, specifically stress
- effective inter-personal communication
- coping with organisational change
- preparing for redundancy or retirement.
- effective job seeking skills

The emphasis in these programs is on teaching practical skills and, where appropriate, integrating with the EAP for individual counselling.

It should be made quite clear that management's legal responsibility is no longer limited to ensuring that fire extinguishers are full and machine guards in place. Physical and mental health are now covered by occupational health and safety legislation.

## **Professional Counselling**

Another principle of EAPs is professional counselling. While the success of all EAPs rests largely on the supervisors' observational skills (of work performance decline), there is great danger in assuming that they are able or even willing to take on the counselling role. Their job should be to detect a work performance problem at the earliest time and offer referral to the person for assistance. This should happen only when two conditions are satisfied: first, the problem must be affecting work performance, and second, the employee must agree to accept assistance.

The supervisor should not become involved in private matters which he or she is not qualified to counsel. If a private matter is not affecting performance, it is not the business of supervisors. The overriding principle here is that counselling must always be voluntary and provided by qualified and experienced professionals capable of working with a broad range of personal problems. The focus of the supervisor must always remain on the work performance of the employee.

It should be remembered, however, that where an external agency is used and direct self-referral is available, the supervisors may not know the troubled worker is undertaking counselling assistance. Programs offer self- and supervision-initiated referral.

While supervisors are key people in any EAP program, counselling must be left to the counsellors. Supervisors should be made aware of their limitations in this field. One- or two-day staff development courses in employee counselling will most likely do far more harm than good. Such courses should be limited to teaching work performance monitoring and referral skills, rather than attempting to make expert counsellors of supervisors.

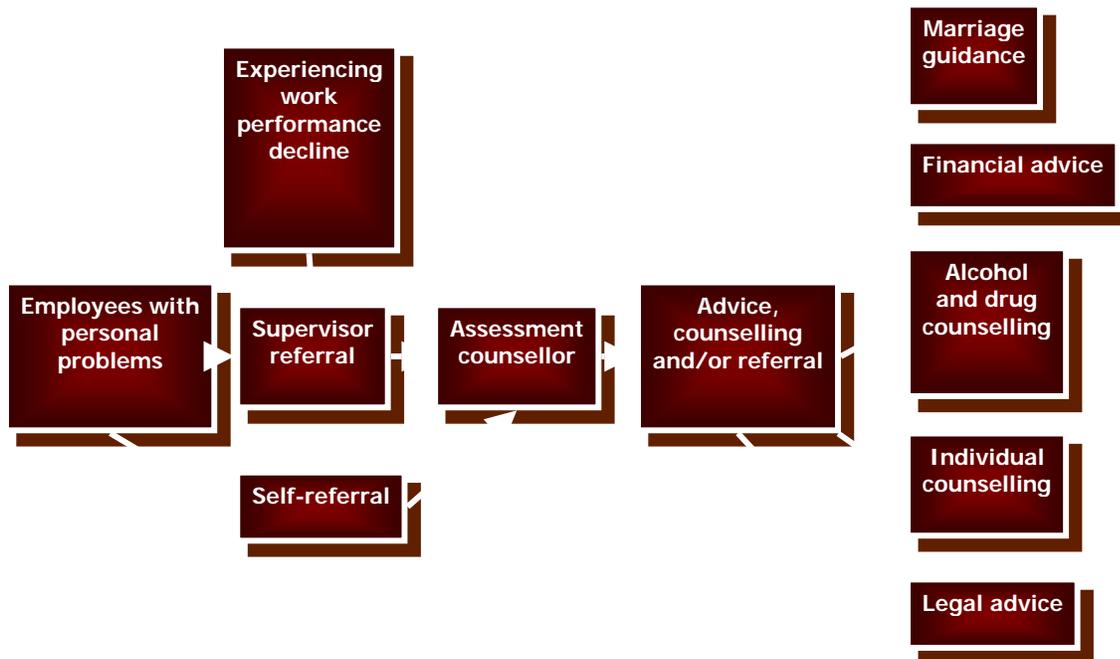
Professional counsellors carry malpractice insurance whereas supervisors (and HR managers) usually do not. (Buon & Compton, 1990)

### **How does an EAP Work?**

A simple model of EAP operation is shown below and demonstrates the following requirements.

- If there is a problem related to a person's private life and it is not affecting his or her work performance, then it is not the business of the employer. The employer may be concerned, but has no right to become involved.
- The employer may provide a counselling service, but the decision about using it rests with the employee.
- It is important to provide the resources for people to seek help voluntarily, in a professional and confidential way.
- The basis of supervisory intervention is the recognition that employees have a responsibility to perform adequately on the job, and supervisors have the responsibility – and should have the training and support – to encourage and guide them to do so.
- The continued monitoring of job performance is the only method of assessment open to the supervisor or manager. When performance is below established standards, the supervisor or manager should discuss the facts with the employee and assist that person to return to an acceptable standard within the framework of the organisation's disciplinary policy.
- The referral for assessment counselling is made strictly on the basis of declining work performance every time a manager or supervisor formally approaches an employee about performance deterioration. This frees supervisors and managers from trying to assess personal
- EAP supervisor or manager referral procedures should be tailored to fit the organisation's present policies.

# AN EAP MODEL



In a 1997 study of members of the Australian Human Resources Institute, Compton found that only 37 per cent of respondents had in place a formal counselling program. Of these organisations, 18.7 per cent were in the finance sector; 27 per cent in education; 18 per cent in government; and 11 per cent in manufacturing. A significant finding was that workplace counselling is far more likely to be found in larger organisations, with 82 per cent of those employing over 20000 people utilising a workplace counselling service.

The main reasons given for introducing workplace counselling programs were as follows: union pressure (11.6 per cent); multiple workplace problems (23.2 per cent); keeping up with latest HRM trends (11.1 per cent); and as part of integrated HRM program (41.6 per cent). The most commonly presented counselling issues were: stress (26.75 per cent); relationships (25.08 per cent); retirement/redundancy (13.58 per cent); drugs of addiction (12.2 per cent); finance (5.95 per cent); grief (6.52 per cent); and gambling (2.93 per cent).

Interestingly, the study began to dispel the popular myth that counselling services are only accessed by the lower levels of the organisation. Respondents reported utilisation rates of 6.65 per cent for senior management; middle management 10.6 per cent; first line management 12.5 per cent; administrative/clerical 24 per cent; sales 2.3 per cent; manual 21 per cent. Counselling sessions were dominated by female members (80%) of those organisations participating in the study.

On a less positive note, it was disappointing to discover that of those organisations that reported a formal program, the majority were staffed by unqualified counsellors. Where an informal program was reported, the situation was much worse, with 80 per cent of counselling being performed either by the relevant line manager, or the HR officer/manager. Of all respondents, only 25 per cent reported their counselling staff as holding a degree in psychology or similar. Of almost equal concern was a lack of any clear link between workplace counselling and other HRM strategies such as performance appraisal, career counselling, training and development or absentee control. At the same time, respondents perceived improvements to absenteeism (65 per cent); turnover (40 per cent);

productivity (57 per cent); morale (65 per cent); and motivation (46 per cent). However, less than five per cent of respondents were able to specify how they intended to monitor any such benefits! (Nankervis et al., 2005)

## **Current Research**

In a follow up study Compton (Nixon, 2003) has confirmed most of his earlier findings but with some notable exceptions. In a study involving a broad cross-section of 650 Australian organisations, he found that 55 per cent of counselling sessions were attended by men and 45 per cent by women. This is indeed very close to the composition of the current workforce and dispelled the myth that counselling was not for real men. The top three reasons for attending counselling were relationships (20 per cent) general feelings of stress (15 per cent) and work–family conflicts (10 per cent). Interestingly, the much publicised issue of workplace bullying was only presented by 3% of respondents. The study also found that those people in the 30–49 years age group were most likely to go to a counsellor. People in this age range often reported feeling the pressures of high mortgages and juggling work/family issues. Almost 33 per cent of those seeking counselling were managers or professionals, with another 15 per cent identified as para-professionals. This dispelled the myth that managers did not seek out counselling as this service was somehow the province of lower paid employees. Consistent with his earlier study, very few counselling sessions were attended by persons with a non-English speaking background.

On a more positive note, today's accredited EAPs are staffed entirely by professionals with either degrees in psychology, psychiatry or social welfare.

The modern EAP has continued the trend towards one-stop, broad-brush counselling services. In 2004, the EAP has matured and is now offering a more sophisticated and broad range of consulting and counselling services. A number of the major players have either merged or adopted an international strategy. Two of Australia's largest counselling organisations have just merged to form Davidson-Trahaire PsychCorp making it the largest supplier in the country. IPS – Employee Assistance, the oldest and formerly our largest supplier, has now changed its name to IPS -EA Global to reflect its growing presence in SE Asia.

It seems that today's HR professionals demand that their EAP providers offer them a one-stop cafeteria style of service. In addition they demand a service that is more proactive so that emerging problems can be addressed before they take on greater significance. Organisations want meaningful feedback regarding trends which are being detected by psychologists during their counselling sessions. HR managers are asking that their EAP act as an early warning system with demands for more analytical and interpretive data being made available on a regular basis. (Parry, 1996).

## **Evaluation of EAPs**

EAPs have in fact grown out of historical traditions rather than empirical research. Much of the claimed cost benefits are based on US research that is, in many cases, rather suspect. A close reading of this material illustrates that much of the claimed benefits of EAPs are more rhetoric than fact. However, this is not to dismiss the beneficial report of EAPs' effectiveness in individual Australian organisations.

With this in mind, a recent study claims that EAPs save organisations \$7.50 for every dollar spent. The claim comes from the former counselling provider CORPsych. Their figures are based on a US study together with statistics from the 50 EAPs that they manage. Savings come from reduced absenteeism, increases in productivity, decreases in conflict and employees being better able to cope with change. (HR Report, 2000).

Such claims must be questioned. The very confidential nature of counselling means that employers will not know who is attending counselling sessions unless the employee tells them. We also know that around 80 per cent of employees self-refer. This in turn means that evaluation of EAPs is very difficult to quantify in dollar terms. One great concern must be the lack of effective evaluation of the EAP. Despite extensive research along with interviews with Australia's largest providers of EAPs, it appears obvious that there is no systematic evaluation of the effectiveness of this HR strategy. There is little if any evidence of any form of survey feedback from the users of EAP services – the clients who may or may not have been assisted! Without this type of effective evaluation of their

programs EAP providers leave themselves open to criticism that workplace counselling services may well be not only faddish but indeed a mere licence to print money. HR professionals leave themselves open to criticism of conducting “soft” HR strategies that add little if anything to the business of the business.

## Who needs an EAP?

The question ‘who needs an EAP?’ may well be posed. Unfortunately, there appears to be no typical profile of a corporate EAP user. Factors such as size, type of work, level of technology and composition of the workforce all seem to vary. The one constant factor is that EAPs are found in organisations that exhibit a genuine concern for their employees. Managers in such organisations show a readiness to invest in their people programs; they demonstrate a commitment to the well-being of their staff. One writer has gone as far as to suggest that EAPs belong in the welfare model of HRM that was so popular immediately after 1945 and remaining popular through to the 1960s. (Alker & McHugh, 2000). Each organisation is different in its goals, culture, problems, technology, and so on, and so there can be no single answer that will suit every situation. HR practitioners, given that they may well be placed in the key role of managing the scheme, will need to look carefully at the advantages and disadvantages of each approach. Anecdotal evidence appears to support the view that once established organisations are reluctant to dispense with the service. If HRM professionals are to cope with claims of a welfare mentality they must ensure that the EAP integrates with and builds upon existing human resource management programs and vitally, that those programs are evaluated to ensure that they are indeed meeting their objectives.

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# The Role of the Leaders in Diversity Management

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## Abstract

Much of the literature supports the hypothesis that diversity has impact on the results of an organisation. This research responds to the need to determine a relationship between diversity and the perception of performance. It is a field research that shows vertical data from only one organisation. The research was conducted in the “BCN”, which operates as a service centre that attends fifteen European countries from Barcelona. Due its international reach, “BCN” needs employees that speak at least three of the ten “*work languages*”. In our research we surveyed 118 respondents, who responded on three scales: Perception of performance, Sensitivity to diversity and Diversity management by leaders. Relationships between variables were analysed through regression. The results indicate that there exists a relation between diversity management and performance. The findings provide support for organisational practices that increase the extent to which diversity is understood as an strategic variable into the organization.

## Introduction

Diversity is a reality of organisational life these days, spurred on by technological development, the increase in mobility of human groups and the varied needs of the markets, it is now a phenomenon which has taken on considerable importance in societies and organisations today.

In Spain the migratory phenomenon has been on the increase (particularly over the last two decades) the diversity ratios being related to the country of origin, race, ethnic group and religion<sup>1</sup>. Although the Maastricht Treaty regulates legal working conditions for immigrants in countries other than those of the European Union, most immigrants from these countries work in Spain illegally. In any event, whether the foreign workforce is illegal or not it carries out a crucial role in the Spanish economy<sup>2</sup>.

Spain will be one of the developed countries with the greatest economic growth up until 2020 with a growth rate higher than the European average<sup>3</sup>. However the economic growth is dependent on population growth and the current Spanish birth rate of 1.5 per one hundred inhabitants is lower than 2.1, which is the level that ensures population reproduction<sup>4</sup>. This means that the possibility of “economic reproduction” without sufficient population growth will only be viable thanks to immigration<sup>5</sup>. Moreover, if immigration were to maintain its current high level, the growth of the Spanish economy could be higher than that already forecast and would put the per capita income in Spain at a higher level than Great Britain in the next decade.<sup>6</sup>

Along with the migratory phenomenon, the mass entry of women into the workplace has brought a huge change to the population distribution of recruitment agencies in Spain. Although the rate of professionally active women is lower than that of men, (45%, compared to 68%, approximately), the number of women who have entered the workplace in recent years is higher than that of men. In 2004 alone, almost 285,000 women gained employment compared to 99,500 men.<sup>7</sup>

This social, political and economic situation poses a key question to Spanish organisations: Which policies must be introduced into the workplace to manage a group of workers who are becoming increasingly diverse? One reply to this question would be to consider not only the ways of preventing the intercultural conflict but also ways of directing this diversity towards enriching the organisation and enabling it to achieve its objectives. The main idea behind this concept of diversity is to get the most out of the human resources provided by heterogeneous groups, which means that they are diverse in terms of gender, age, race, ethnic background, nationality etc.<sup>8</sup> In the last 10 years diverse multilateral bodies have acknowledged this growing relevance of cultural diversity on the political, social and economic agenda of the states<sup>9</sup> and 30th Session of the general Conference – UNESCO (1998); World Bank (1995); World Commission of Culture and Development (1995); G-7 Summit of Brussels (1995); Inter-

American Bank of Development (1999); OSCE (1999); Organisation for African Unity (2000); Board for the Cultural Cooperation of the European Council (2000); Board of Ministers of the European Union (1999); Cultural Exchange Programme of the OAS (1998); Work Group on Cultural Diversity and Globalisation of the RIPC (2003); European Commission (1995, 2000, 2002, 2003); etc.). However, the degree of recognition and understanding of this area varies from one forum to another and in some cases; the debates held concerning this are not reflected in any specific actions.

The General Management of Employment of the European Commission published a report at the end of 2003, in which it suggests that companies with policies which favour encouraging diversity achieve better results. The first *fundamental question* which the report deals with is: “*Companies which apply policies of diversification of personnel identify important benefits which reinforce competitiveness in the long term and in some cases, improve results in the medium and short term*”.

Many organisations have adapted their structure to meet the challenges of diversity, frequently motivated by the understanding that there could be some economic benefits to this. The development of programmes on diversity in organisations usually includes: Support from senior management (as a critical aspect for the success of the programme), Evaluation of the organisational practices (Evaluation of culture, values and attitudes in the workforce with the aim of identifying difficulties and posing solutions to facilitate a successful introduction) and Programmes to attract diverse employees (by way of effective practices of recruitment, accommodating employees to their cultural and familiar needs)<sup>10</sup>.

The evidence which this research provides with regard to the *results* of the diversity is varied and has two main aspects: Diversity can have some positive effects with regard to creativity and decision making in teams<sup>11</sup>; and it can also have some negative effects such as the degree of satisfaction with work and the group, the commitment and level of involvement of the team members<sup>12</sup>. Although the findings of the research report tend to coincide in that the main negative effect of diversity is related to individual satisfaction with the group, they show greater divergence in the positive effects which it has on team performance.

Some researchers point out that research on the effects of diversity on the team performance, depend on the theoretical framework which the research draws from<sup>13</sup> and that according to this, the effects of diversity will be concentrated either in the quality of the relationship in the work team or on the quality of the tasks which the team carries out<sup>14</sup>.

When we talk of results of the work teams, we often talk of leadership, assuming that the leader figure helps to produce the right conditions for the team to reach its objectives. Various theories have dealt with the importance of the role of leader in people management and each one places emphasis on different aspects which are usually related to tasks to be carried out or with the type of relationship which is established between the employees and the leader.<sup>15</sup> Kotter (1990) establishes a difference between the management and leadership. He states management deals with facing complexity, whereas leadership deals with change. Therefore in a diverse labour environment, new leadership competencies are required in line with the changes which diversity in organisational processes implies.

One aspect which has also been researched in detail is the degree of agreement between members of a diverse team concerning the strongest identity in it and its influence on the performance and life span of the team. Some research sustains that sharing the understanding of identity is necessary to know just what conduct is appropriate and acceptable in its members.<sup>16</sup> Earley & Mosakowski (2000), argue that determining the identities of the role within teams is indispensable for multinational teams to be effective. This means that team members who share a common outlook concerning their group identity, improve the team results as a result of the trust and positive feeling generated within the team.<sup>17</sup>

In any case, an extensive bibliography explicitly accepts the hypothesis that diversity and its management do have an effect on the results of a company.

However, *in operational terms*, How do we measure the results of diversity management? Is there really a relationship between diversity and effectiveness of diverse teams in a company?

This research is based on the idea that describing a possible *relationship* between **diversity management** and the perception of members concerning the **efficiency of their work teams**. The impact of Diversity management on the Perception of Efficiency within teams needs to be assessed.

This is a field study, which presents vertical data from one single organisation. In this way it is a case study adapted completely to the characteristics of the company which is being researched. The study aims to apply itself completely to the reality of this company and at the same time maintain rigorous methodological conditions which adequately support the management decisions which arise from the results.

## Methodology

Work was carried out with an organisation which we will call "BCN". BCN is the Spanish subsidiary of a multinational in the financial sector. It is a service centre based in Barcelona which deals with customers in fifteen European countries, which means that employees need to speak at least three of the ten languages which the company considers to be *working languages*. There are 41 different nationalities being represented in this organisation.

In BCN, **Diversity** is a strategic variable and a key success factor in that it is an indispensable condition for the business to function. It enables a reduction of operational costs as its services are centralised in one single city which serves all of Europe.

**The relevance of diversity in BCN means that investment in the diverse human resources processes involved is necessary.**

This means that training team leaders in the diversity of management and the development of sensitivity programmes for the workforce are two of the most important policies in BCN needed to develop efficiency in the diverse teams. In this study we analyse both variables in terms of the importance given to them by the company being researched.

We consider that diverse teams are made up of people from different identity groups, which in this case we identify with some of the following aspects: Gender, Origin country, Ethnic group, and/or religion.

The purpose of this research study was to determine if there is a relationship between diversity management (the work of the leader managing diversity in his or her team and the sensitivity to diversity in the workforce) and the internal perception of effectiveness which they have of their work teams. To gain this information three scales were drawn up:

- Perception of effectiveness in work teams
- Sensitivity to Diversity
- Diversity Management by leaders

The three scales were developed along with the Human Resources managers BCN attempting for them to be adapted to the work conditions and characteristics in the company. For the three variables they used the Likert type scales with 5 alternative replies.

A total of 118 people replied to the three instruments. Control information was compiled concerning the variables which identify the identity groups (sex, country of origin, ethnic group and religion). In addition further information was requested about: age, degree of identification with religious belief, area of work in the company and time spent working at BCN. For the analysis only the variables were used: sex (women 69, men 49), country of origin (13 countries), age (average = 30.5, deviation = 6.03) and area of work in the company. No analysis was made with the other variables as there was no statistical representation in the sample.

## Perception of Efficiency in Work Teams

An evaluation is made of the perception of the people in BCN with regard to the general performance of their teams. 14 items were evaluated: Time management, decision making, continuous improvement objectives, Efficiency, Conflict management, Task sharing, Quality of results, Learning, Common commitment to targets, Capacity to give and receive feedback, Effectiveness, Planning processes and Climate of Team. A General Evaluation of the team was also requested.

### Sensitivity to Diversity

Opinions, attitudes and conduct as a whole, which reflect the value which is given to diversity in the workplace,

were all assessed. It included a sub-scale of 4 items to assess whether or not the diversity should be neutralised, ignored, tolerated as something natural or considered something positive, in relation to controlling the team. In this instrument it also incorporated five items concerning the perception of: the degree of diversity within the team, the frequency of contact of people of diverse identity groups in and outside the workplace, the influence of diversity on achieving objectives and the influence of diversity of the team climate. These five items were included in the reliability analysis of the instrument. The scale had a total of 23 items.

**Diversity Management by Team leaders**

Another evaluation made was of the opinion about the degree of effectiveness of the behaviour of a leader of a diverse team. This degree of effectiveness refers specifically to: fostering the integration of all the team members, considering the differential characteristics of each group in daily working situations, giving them a positive evaluation for the fact that they are a diverse team, resolving conflicts provoked by diversity, enabling a good atmosphere to be created as well as conduct which encourages the knowledge and respect of the specific characteristics of the diverse groups. This third scale had 12 items.

The three scales have had some high reliability measurements.

**Results and Discussion**

We will present the main results divided into two groups in terms of their use as tools of management within BCN.

**1. Descriptive results:** Although the descriptive results (percentages, standard deviations and frequencies of replies of the three scales) are more numerous, they are not the final objective of this case study. Because of this, we will mention only the most relevant of them.

The possibilities of reply of the three scales from 1 to 5 (1 is the lowest and 5 being the highest) and in accordance with this, the final averages per scale were obtained.

- The general perception of the effectiveness of the work teams is average. The final average of this first scale was 3.38. In BCN the people considered that the most notable thing in this perception of effectiveness in their teams is the climate. The item **Climate within the team** has obtained the highest points on the scale (3.94) and a high degree of agreement from the people being questioned.
- The workers in BCN perceive their work atmosphere as being highly diverse. 52.6% perceive the degree of diversity within their teams is *high* or *very high*. In the same way, the general perception of the influence diversity is that it influences the climate of the team more than the work objectives which were obtained. Although a diverse work atmosphere is perceived, the people in BCN do not find a strong correlation between diversity facilitating the achievement of objectives. This conclusion needs to be looked at in depth within the organisation, as it could be paradoxical considering that diversity is a key success factor in BCN given that it is this which enables it to provide a service to Europe at a lower operational cost.
- 77.1% of the sample is *in agreement* or *completely in agreement* that in multinational teams, the role of the leader is important in attaining high objectives.

Of the descriptive results which have been presented, we can conclude that the good climate is the most outstanding internal characteristic of the teams. People perceive that diversity influences the climate of the team more than the achievement of objectives and the responsibility of achieving these objectives is mainly that of the leader. This is related to the impact of the role of the leader on the perception of effectiveness and it corroborates the importance of the role of the leader in diverse teams, but it means that the involvement of workforce takes on a reduced role. With regard to management policies this means two things:

- Employing and training leaders who are capable of managing diverse environments.
- Encouraging an active role in the workforce to convert diversity into a platform to achieve objectives.

FINAL RESULTS OF THE SCALES

SCALE	FINAL AVERAGE
Perception of efficiency on work teams	3.38
Diversity Awareness	3.53
Management Diversity in the leader	3.52

PERCEPTION OF INFLUENCE OF DIVERSITY ON THE CLIMATE OF THE TEAM

REPLY	%
Very negative influence	0
Negative influence	0.8
No Influence	28.8
Positive influence	11.0
Very positive influence	59.3

PERCEPTION OF INFLUENCE OF DIVERSITY ON ACHIEVEMENT OF TEAM OBJECTIVES

REPLY	%
Very negative influence	1.7
Negative influence	2.5
No Influence	5.,6
Positive influence	33.9
Very positive influence	4.2

2. **Relationship between variables:** The equations of regression which describe the relationship between variables are:

**Diversity Management by Leaders (DML) and Perception of Effectiveness**

$$PE = 1.971 + 0.397(DML)$$

R2 = 0.173. This means that 17.3% of the Perception of Effectiveness in the teams is consequence of the Diversity Management by the leader.

**Sensitivity to Diversity (SD) and Perception of Effectiveness**

$$PE = 1.970 + 0.399(SD)$$

R2 = 0.083. 8.3% of the Perception of Effectiveness in teams is consequence of the degree of Sensitivity to Diversity.

**DML + SD in Perception of Effectiveness**

$$PE = 1.382 + 0.342(DML) + 0.221(SD)$$

R2 = 0.194. 19.4% of the Perception of Effectiveness in teams is consequence of Diversity Management by the leader and the degree of Sensitivity to Diversity working together.

The three regressions are valid with values of less than 0.05 meaning.

We can conclude that although leadership has a more notable impact than sensitivity on effectiveness, neither of the two variables has a very high relationship with the latter. The reason behind this lies in the level of maturity of diversity which has been reached and its management in BCN. The company strategy incorporates diversity as a starting point from which to understand the service which is provided to the clients. Internally it is something quite natural, totally accepted and incorporated in the culture of the organisation and it does not bring about any intercultural conflict. Within this framework, the management of the leaders in the team does have an influence but is fundamentally related to maintaining conditions so that diversity does not generate any conflict. In the same way, although people feel that the leader has a great relevance on the achievement of objectives in teams, the relationship between the effectiveness perceived and the work of the leader who is managing diversity is low. This leads us to the conclusion that the objectives of those who the leader is in charge of have little to do with the team's internal performance. His or her task is related to achieving objectives which the organisation sets concerning work which is done (for example, number of clients dealt with, limit of mistakes etc.)

Another important point is that BCN has been in existence for almost a decade as an organisation which has gradually consolidated its diversity management policy. This has meant that the training programmes for both leaders and for the workforce change and adapt to the times which the organisation is passing through and to the multicultural nature of Barcelona as the city where the centre is operating. The increase of foreign residents in Barcelona in recent years has had a direct relationship on the growth of the work market in which BCN recruits its personnel, which has an effect on other internal processes in the organisation.

The existing relationship between what the leader does to manage diversity and the perception of general efficiency within the teams, would probably have been higher when the organisation began to implement its policies of diversity on deciding to centralise its services in one single town. This leads us to consider that the role of team leaders managing diversity, needs to vary and accommodate itself as the organisation undergoes different stages of life.

## **Conclusion**

The information received in this study shows that the role of leaders in managing diversity has a repercussion on the perception of efficiency in teams, but that this role revolves around specific tasks related to the incorporation of diversity in the organisational culture and in the way which the organisation plans its strategy with regard to diversity.

Although it is not high, the extent to which the leader's role explains the perception of effectiveness is higher than how it is explained by the sensitivity that people can develop towards diversity. With regard to efficiency, the contribution of awareness is marginal compared to the management of leaders.

The context of these results increases and acquires greater relevance if we incorporate the relationships which exist between the perceived effectiveness and performance, knowing that the effectiveness perceived is a variable predictor of the performance of the work teams.

These results are not conclusive. But in the diversity management environment they provide a relevant statistical step towards the analysis of the Leader-Results relationship, as being more effective than other relationships, for example, Training in Sensitivity -Results.

Normally when reference is made to the role of leaders in diverse implantations of programmes, there is a mention made of the degree of involvement required from senior management, in order for the programmes to work. The findings of this study support the idea that the work of the team leader in his daily activity with his / her team has more of an impact than the work of diversity sensitivity which may have been developed in the workforce. The study does not demonstrate this but by taking this idea we can pose the hypothesis that the leader could be the main agent of development of diversity awareness in the workers.

This study should ideally be repeated in organisations of similar characteristics with the aim of carrying out an in-depth search of efficiency predictors in diverse organisations. Other research scenarios may be considered, being related directly to the diversity data (management of the leader and sensitivity towards diversity) with indicators of efficiency, measurements of achievement of objectives, figures of evaluation of performance or with some indicator of financial results by area (EBIT for example) and we can see just what an impact a specific diversity management policy would have on them.

For the organisation, an important conclusion to be drawn is that the improvement on team performance is linked to encouraging the competencies of Diversity Management in leaders. Investment in training should be aimed at developing programmes for team leaders rather than working in the development of others programs with the employees.

The operational application must also be carried out in other Human Resources processes. Apart from training, it will be important to incorporate the variable Management of Diversity for processes of Personnel Selection, the Performance Evaluation and Internal promotion.

One relevant aspect for the company is the development of the idea that diversity should be considered by the workers as a platform for improving team performance. The results show that in BCN, diversity is more important in maintaining a good climate than for developing internal effectiveness in teams or in achieving objectives. This means that people perceive their work atmosphere as diverse, they value the diversity, but they do not find that this diversity is more related to the results of team work.

Although the results presented are of a preliminary nature for Spanish companies as a whole, they are the first step towards aiming to quantify the effectiveness of diversity policies in the Spanish organisation. We have aimed to use these research questions dealing with specific and operational aspects of diversity management policies, bearing in mind that this is a relevant strategical phenomenon in the way organisations function nowadays.

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# Leadership at the Threshold to the Third Millennium

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## Abstract

In the course of the past ten years, the importance of the term leadership has been constantly increasing. Business science and especially HRM show substantial interest in the area of leadership. If we deal with the matter of leading, we encounter a huge assortment of sources on this theme. However, in any case, the term leading is very hard to describe. A huge amount of already executed trials for definition of this term shows us, that only a few specialized publications were able to capture this multi-layer concept. Something that attracts attention in this matter is the fact, that leading is often understood as superior/subordinate relationship between the person leading and the person being led - providing that one of them is obliged to leading and the other one to loyalty. The need for leadership spans all of the historical periods and various cultures of the mankind: The need for leadership arises, if more than two persons are organized in a group in order to distribute their work actively. The term leading is interpreted in various ways, what is related to the historical-time perception of the given period, however leading itself, in the understanding of goal-oriented interpersonal influencing, has become a subject for systematic research only at the beginning of the last century. In the meantime, the analysis of the leading phenomena is being carried out by various sub-disciplines, however to this day the problem of different approaches integration into an extensive and generally accepted theory has not been resolved. Urgently needed interdisciplinary research program of the Leading topic is only in the process of shaping in the behavior-oriented business science.

## Introduction

In general, leading is an effort affecting the behavior of one or multiple persons, so that the prescribed and common goals can be achieved by mutual cooperation. In the term leading, we understand an aspect that concerns science as well as practice. Different problems associated with leading include the fundamentals of the company management (expressed in its values), interpersonal impacts within the framework of people leading and an introduction of leading models (Gabele/Liebel/Oechsler, 1982). We came to a conclusion, that since people have joined together for the purpose of common task realization, a complex multi-layer problem associated with leading has arisen.

The need for leading is constantly rising, due to the fact that task fulfillment and the achievement of appointed targets requires higher team member flexibility as well as sustainability of actions coordination. Further developments will be based on following definition: Leading is goal oriented, social influencing for the purpose of mutual task fulfillment (Wunderer/Grunwald, 1980). Leading is subsequently described as an action that includes regulation and formation of other persons' activities. This is done in so-called partial processes as e.g.: goal determination, planning, decision-making, controlling, etc., that are also called leading processes. Successful or actually, effective leading is therefore the fundamental building block of all prospering companies.

Theory and practice were always confronted in the face of leading. At the same time, identified leading problem areas were sufficient for their time and scope of leading research. Starting from the fundamentals, through introduction of the leadership models over to interpersonal influencing within the framework of people leading, but the research by means of targeted influencing in the interpersonal sphere, which transforms into the success of the company, has started only recently as a problem within the framework of business science.

However, it must be insisted upon, that the leading theories content is based on social-psychological approaches, that rely on empirical studies and that can be applied without any larger criticism to the problems encountered in company leading. Opposite to these concepts are the leading models that are based on company management practice, that indeed are very widespread, but they are missing out on theoretical soundness, what results in only partial practical application. We come to a conclusion, that the leading force is situated in an

insoluble dilemma, caused by the complexity of the subject matter as well as by forcing, what results in an almost insoluble tangle with a little hope for solution.

The aspect leading in every day life is described as influencing. However, we often meet with slightly misused interpretation in the form of synonym leading to manipulation. In this context, influencing means the accomplishment of two fundamental tasks of leading: cohesion and locomotion. Under the term cohesion, we understand the creation and up-keeping of the group integrity and durability (Stroebe/Stroebe, 1990), under the term locomotion we understand the group motivation for the purpose of common goals achievement (Stroebe/Stroebe, 1990). If the company on one side represents an efficient organization, and on the other side represents a social organization, cohesion is necessary. The group stands in the forefront. Cohesion therefore defines the human or actually the relationship dimension of the leading. Research has shown that the employee satisfaction is much higher in the groups with cohesive character. Because a company is primarily an effective company, which goals must be achieved, locomotion is necessary - the goal is in the center of the attention.

Therefore, the leading forces are on one side responsible for the results, providing that the possibilities of leading are only partially controlled or influenced, on the other hand, they must find the middle path between two contradicting requirements. Leading forces are assigned with roles, that are not precise enough or also stand in the contrast and therefore they undergo constant change. In each case, the leading forces utilize their own experience to solve the problems. The faster the change or higher complexity of the environment, the higher is the uncertainty. The actual leading is therefore a mix of personal experience and uncertainty, arising from experienced implications of own inconsistency and environment imperfection. These influences support the need for support, certainty and transparency. At the end, there is a substantial interest in guidance help or actually procedures for action, that contribute to role uncertainty or conflict elimination. If the models and concepts of leading are to be relevant in practice, they must be measurable, because they explain the process of leading in all of its complexity and/or offer the guidelines for effective leading in a complex environment and contribute to compromise identification between not imperative, but necessary alternatives (Bisani, 1985).

## **Theories of Leadership**

The subject of leading shows the complexity of the matters, evidence of which are the various theories, hypothesis and speculations from all fields of social sciences, so that the problem of leading could be explained not only theoretically, but could also be kept under control in practice. From the fact-side, the theory is the basis for technology. Technology is therefore perceived as transformation of theory and its utilization in practice. The technology of leading is presented in a wide arrangement of recommendations in a form of leading models, what means that valid arguments will be worked out, that assist the leading forces in the process of changing behavior of the others, considering the goals and desires of the leaders. Leading theories focus mainly on clarification of the conditions, that result in the development of leading and they are trying to identify the inherent basis of leading.

Within the framework of leading theories, one of the oldest approaches is the so-called trait theory. The basic implication of the trait theory is such that the person with specific personal qualities is apt to lead others. Mainly in 50' and 60', a lot of research on the identification of these attributes or actually the leading traits was carried out (Gabele/Liebel/Oechsler, 1982).

The goal of the research was to identify personal traits or properties standing alone or in combination form the inherent qualities of the leader. It was referred to the fact, that already Aristotle represented the opinion that some people are more suited for commanding than others. Results of the research have shown that there are no personal traits, which would be able to guarantee continuous and consistent success in leading for the leader. However, numerous properties predetermine the success of leading. When analyzing or evaluating leading processes, the personality of the leader cannot be omitted.

Personal theory has shown to be highly practice-relevant. Its realization relies on the basis, to select the leading forces on base of relevant leading properties. The tests, according to which is resolved, whether the potential candidates for leading positions have the necessary leading traits are carried out on this basis. However, until this day, no selection procedure has shown that the traits identified in the test relate to later leading successes. Therefore,

there are justified any doubts or speculations on the practical utilization of the personal-trait theory. Property theory can therefore be reduced to one central point and that is, that some leader traits in any event do not stand in the way of leaders' success. That leads to the fact that the actual leader traits are very hard to identify specifically.

According to the group theory, the role of the leader is defined from the view of outside of the group. The role of differentiation, that is developed inside the group therefore specifies the leading itself. The leader can lead only in such extent that is allowed by the group (Bisani, 1985). The research of small groups has shown that there is no such group, where a leader would not develop.

Of course, the leader becomes the person, from which the other team members expect the fastest achievement of their goals. It also means, that the one supported by the others, will enforce the achievement of his/her interests. If positive interpersonal relations are developed to other team members, the leader can retain his leader status for a prolonged period of time.

Representatives of the situation theory on the other hand present a notion, according to which behavior of the leader is supposed to adapt the individual conditions of the relevant situation, if the success is to be guaranteed. Due to this, the process of leading is merely an interaction between the superior and subordinate. With regard to variety of other situation, one cannot prefer any leading behavior that would enable success in the entire situation. Following demands result from the relevant situation. Situation is determined by the present persons, organizations, task structure as well as environment influences (society, government and economy system).

One can modulate the occupation of the leader role according to the situation and task. The person that knows the way out of situation problems is the leader – however, he must do more than just push the others towards the goal fulfillment. Leading is considered more as a function than as a person. The crux of the matter remains the character of the leader role.

Critics of the situation theory, that emphasize the problem of improper situation clarification, are supported by the fact, that the situations are never stable. Changing situations change the leaders' role and according to the circumstances require a change at the position of the leader. (Gabele/Liebel/Oechsler, 1982). Contrary to all of the criticism, one must not forget that in situation theory one can see significant improvement. When taking into account the practice, there are no general or non-specific proposals laid out, but the situation circumstances of the leading processes are evaluated individually. In this way, the possibilities to include the business reality into the research of leading are much better.

The interaction theory represents a different model of leading process description; Recommendations for the practice at this level, however cannot be developed. With the interaction theory approach, the necessity of integration within the framework of leadership science is also connected and the success of the management depends on diverse variables (Gabele/Liebel/Oechsler, 1982).

Under interaction, we understand mutually contrary relations that are associated with the efforts to gain influence. Leading is split into a system of influence determinants, where only the successful trials for gaining of influence allow the difference between the leader and subordinate. Within the framework of the interaction theory, there is a substantial transition of the crux of the matter, because the structure of leadership situation context is shifted into the background. To the forefront is shifting the concentration for expectations and positions i.e. to personal factors, where the possibility of prediction is again very disadvantageous (Gabele/Liebel/Oechsler, 1982).

## **Leading Styles**

In the scientific literature, only those approaches to leading are usually discussed, where it concerns the typical concentration of leader's behavior. Some of the best-known leading styles are authoritarian and cooperative approaches that can represent the Leadership style Continuum.

Authoritative approach to leading is based on a principle of order and obedience. Usually the authoritative superior is the formal leader whose authority is based on the power associated with his position. The area of interpersonal relationship between the leader and the person being led is hierarchically exactly formulated and is more distant from the human factor. The core of the authoritative style remains in the fact, that the superior makes all of the decisions and these decisions are further distributed by means of directions and orders. There is no dialog

with the subordinate in the process of decision-making. Subordinates receive an order to fulfill everything what is asked from them with no discussion, even though they are not convinced on their correctness. If the orders are not fulfilled sufficiently or not at all, subordinates must reckon with sanctions. As a controlling tool are used often or actually regular controls carried out by the superiors or his assignee.

Superiors have exact visions concerning their subordinates; leading instruments are utilized that lead to material reward on one side and sanctions on the other side. The vision of the subordinate is based on the fact, that his capabilities are very limited. There is no room for the independence of the subordinate; therefore, the assigned orders are exact and precise; besides there are strictly executive tasks specified for the subordinate. Information for the subordinate is accessible only in extent required for successful task execution. Such information policy, limits the view of the subordinate in the overall company interactions. This results in further strengthening of the leader power - and besides that, the possibilities for purposeful and targeted manipulation by leader are growing.

In cooperative style of leading, the leader comes to a decision in cooperation with the subordinates or the subordinates at least take part on decision-making; however, the leader is responsible for the relevant decision by himself. Subordinates, that took part in the process of decision-making, will enforce their decision in the discussion with their superior, providing that this enforcement of decision is usually done individually and at your own responsibility. Everyday tasks are usually delegated to the subordinate for realization. On base of a continuous cooperation and mutual information, the controlling by the superior is required only in a limited extent. This information policy enables the employee to identify and allocate more important connection and responsibility for the overall company performance.

The relation between superior and subordinate is in cooperative style of management usually hierarchically structured, naturally the subordinates are more-than-less considered to be partners by the superior; the presence of power is pushed into the background. This weakens and loosens up the hierarchical structure. Cooperative style of leading is typical for its mutuality, it even gives space for the creation of quite friendly relations among subordinate and superior.

Described forms of leading styles, authoritative and cooperative, are considered ideal types that are in practice in their true form very hard to implement. More vividly, they represent fixed points in the basis of the Continuum. Between these two extremes, there is a wide space for multiple modifications of leadership relations that are classified on the scale of individual leader's elements significance (Bisani, 1985). According to the rules in force until the 60's of the last century, authoritative and cooperative leadership styles were two incompatible contradictions. This view however is no longer suitable: From the existence of Continuum we can deduct, that between authoritative and cooperative style of leading is a smooth transition. The leaders can accommodate their own style of leading to be less authoritative or more/less cooperative. In literature there are also discussed besides central styles of leading also other style of leading, that are all assigned to authoritative leading.

The model of patriarchal style of leadership is based on absolute authority of the father in family; the roots of this view span all the way to the 19<sup>th</sup> century. Patriarch has absolute, authoritative right for power and right for leading those under him. The right for power of the patriarchal leader is legitimated by the degree of adulthood, wisdom and experience. Subordinates do not take part on the decision-making; information is restricted to limited amount. Those being led have the right for loyalty and procurement: Patriarch feels responsible for those under him and constantly tries to establish family atmosphere. Patriarch leader can be in this perspective classified as authoritative leader. The right of a charismatic leader for leadership is based on individuality and positive effluence of the leader. The fundament of power in this matter is charisma that brings those being led into dependence. There is no need for predecessor, deputy or successor. Charismatic leader can, not only in the concept of obedient behavior, ask from all of its subordinates any kind of sacrifice – and that also with passion. As a counter value for required and expected obedience is a successful prospect. Charismatic leader therefore does not emphasize his power as well as sanction authority based on his position: He leads on base of an emotional relation that can be also irrational. There is no need for coercion, but the subordinates present required behavior willingly and with particular passion. Emanation or actually the charisma as a personal trait is something that cannot be learned. Charismatic style of leading is expressed much more in particular situation and cannot be marked as a purposeful part of a leader's behavior.

From the early forms of power has developed the autocratic leading, despite of personal style of leading, institution comes into the forefront: autocratic leader is an authoritative leader that disposes with valid title for power; absolute entitlement and order obedience, the person itself is in the background of the institution, represented by him. Autocratic leader perceives his power not from the viewpoint of personality, but from the prevailing respect and adoration towards the institution. The institution is not led directly, but with the help of the whole leading apparatus. This has enabled the autocratic leaders, as shown by the history, to create huge social formations.

Autocratic style of leading is different from patriarchal and charismatic, due to the fact, that these are dependant upon person and situation. Autocratic leadership on the other hand is independent on persons. The fundament of power does not change in any way: If the leader falls, he will be without hesitation replaced by another one. Autocratic leadership is therefore dependant upon an institution.

The leading apparatus of an autocracy builds the fundamentals for development of bureaucracy that is considered the answer to the caprice of the autocratic leadership: directions and orders are in connection to individual laws, investigable. Bureaucratic leadership means legal power of the bureaucratic institutions through professional competence.

In bureaucratic management, there is no leading person or leading institution, but much more specifically described function within the framework of the whole, hierarchical apparatus. Based on this, the bureaucratic leadership knows the clearly defined power competences that are transferred to persons with relevant qualification. Control and counter-control are dominant. Contrary to the fact that bureaucratic leading was at the beginning of the century celebrated as a contradiction to the caprice of the constitutional monarchy, but today this term has prevalently negative meaning. In the course of its development, its advantages and its striving to be perfect has transformed into its mistakes and faults (Bisani, 1985).

## **Models of Leadership**

The difference between theory and the model is very difficult, due to the fact, that models from work of scientists always find their application. Not every model is a theory, but theory can quickly become a model. Models are within the framework of scientific research used for simplified reproduction of real events, so that the amount of complexity is minimized. Creation of a model always brings with it a certain reduction of complexity (Worpitz, 1991).

Different alternatives of leadership system search translate into the leadership model construction, that is more or less equipped with ideally typical characters and issue orders on the structure of the leadership systems as well as how to act on personal components. There is a reason for models in the fundamental concept of the leading, due to the fact that in practice is the extent of very specific instructions very small. These recommendations are therefore targeted to limit the specific leadership problems.

In business scientific literature we find models of leading much more directed towards the description and evaluation; contrary to the status of the matter, there are individual discourses to each of the concepts. From time to time, you can find classification that specifies total and partial models.

Whereas the total models take into account all of the variables and can be named also as full models, partial models cover only limited parts of the leadership system and subsequently are applicable as only partial or restricted leading models, it is often due to their frequent integration into total models. Leadership models are designed as multi-dimensional structures, providing that their use is in creation of the leading processes and leads to leadership efficiency improvement, what results in relieving of the company management.

In 60's and 70's there was a vivid interest for leadership models in Europe. Lots of consultants and business institutions exploited the fact what translated into general discussion in media. Business science in these countries was incapable of covering the demand for additional knowledge on leadership science and was hunted into a corner by these events; naturally, its reactions were very hectic. In substance, the leadership is based on these criteria:

- Leadership models are a tool for representation of the practice.
- Company leadership processes should be illustrated in a simple way.
- Individual elements of the leadership should be covered.

- Leadership models should reflect the leadership process.

The debate on models was followed by sound, as well as partially destructive criticism. The crux of the leadership models remains in missing forecast ability. The critical question therefore sounded: How to attribute the impacts of leadership measures, without any relation to the theoretical foundation? Because this scientific postulate in the leadership science is not sufficiently developed, models must bring with them also limitations that offer place for criticism. If we consider criticism as legitimate or constructive, in any way we cannot deny the exceptional influence of leadership models on the German economy and from this resulting leadership concept.

Leadership models include two separate areas: On one hand, it is the scientific function and on the other hand, the pragmatic function. Scientific function represents models as a concept of solution providing that each hypothesis, even if its complex is transformed to a simple statement. If certain conditions are considered the fundamentals, certain measures should get us to necessary implications and effects. On the other hand, pragmatic function in its substance focuses on the task of general rules that should result into homogenous solution of the leader problems. This leads to reduction of leadership complexity (Wild, 1974).

Models work always as a complexes of hypothesis, however they always need scientific verification. Their most important function is the expression of specific question, evidence of which is deducted from scientific research. In summary we can say, that leading models can be understood as possibilities of different structures that reflect, connect and offer a whole package of guidelines within the framework of the whole process of leading. Concepts conform to evaluation of feasibility and practice vicinity, because the leading force has to offer sufficient knowledge on the process of leading, so that the company goal can be achieved in its best way. These main components are necessary: leadership model must contain all of the process aspects and leading structures, in order for it to be recognized as full-value model (Steinle, 1978). Management concepts therefore embody only main ideological stances, expression of which is exercised in the leadership models (Bleicher/Meyer, 1976).

Leadership models, that have shown to be applicable in practice in the last decades, were developed on the rich experience of the practitioners, without any influence from laid out theoretical approaches. It means that these leadership models are in overall understanding in contradiction to the development trends of the new leadership theories. Practice oriented leadership models build on the fact that they represent total leadership models. This enables them to solve any leadership problems that could eventually occur; Factors as expectations, interactions or attitudes are after all not that interesting. Just to mention a few, total practical leadership models utilize organization tools, as e.g. career planning or job description. Therefore, there is no immediate concentration in the process of leading and a structured description of a leadership situation is of a very high value, and consequently are the following contact areas for the purpose of formulation of question associated with business.

If the models are formulated purposefully, it represents an effort of the practice as well as of the theoretical approach, to offer a catalogue of behavior rules that should serve as a fundament for practical generation of the leadership processes (Hecking-Binder, 1974). It means that, in order to evaluate leadership models relevant for practice, we must fulfill the requirements for a comprehensive leadership model (Hecking-Binder, 1974).

## **The Harzburg Model**

In the core of the Harzburg model is situated the leadership model with relation to the subordinate (Hecking-Binder, 1974), that means, that Harzburg model considers as a fundament the principle of task, competences and responsibility delegation. Subordinate must find recognition as individually thinking and executing subject, as it is laid out in the Harzburg concept. We build on a basic concept and that is, not to limit the leading functions only to the top of the company hierarchy, but parts of them should be transferred to the operational level as well, and in this way distribute the responsibility to individual members of the organization. Subsequently, the other main aspect of the Harzburg model is the process of overcoming authoritarian principles and implementing new fresh thoughts on cooperation.

Harzburg model offers the set-up of such access guidelines that enable the main intention of the cooperative leading to be closer to practice than ever. One of those is in the simple substance of the Harzburg model, delegation

and responsibility. The basis of the approach is that leading is not carried out on multiple tasks, but is carried out by means of division and transfer of the whole task areas.

One of the instruments of the Harzburg model is the so-called general leadership guidelines that include a list of principles or leadership styles. It is a concept of rights and duties, which should provide concurrence of members and organization. Besides, the information and its usage is governed by rules. Harzburg model talks about three types of information movement: Information from top to bottom and vice versa as well as criss-cross information movement. General leadership guidelines are leveraged by the team leading principles, employee interview principle as well as dealing with complaints and representation.

Another instrument of the Harzburg model is the job description, the need for anchoring of employee competences and responsibilities is pretty much a basis for implementation of the Harzburg model. Job description specifies exactly defined areas of the employee and his relevant competences. The employee is obliged to carry out the tasks and find the solution individually. Job description also has a goal to assist in finding the right person for the position, what is derived from the main purpose of the JD; the person identified must be compatible with the job description (Hecking-Binder, 1974).

## **“Management by” - Techniques**

Lots of „Management by“ - techniques has developed in the last decades on the market and they exerted a lot of effort to come into the forefront. Individual concepts were often formulated as the best. As we now know, none of the techniques offers holistic concept of knowledge, in a much higher extent the both techniques overlap. Some of the techniques as e.g. Management by Exception, Management by Delegation and most of all Management by Objectives, declare higher degree of entirety than others. From all of the presented Management by - models, even due to the change in business, primarily only Management by Objectives, what is leading by means of target specification, is utilized in today's companies. This model represents the basis of the improved company leadership concept, providing that the partial concepts, as for example Management by Exception and leadership behavior and principles are integrated. Management by Objectives has shown to be if not the right one, than at least one of the useful leadership models (Worpitz, 1991).

Leading model Management by Exception (MbE) that is used for leading in exceptional situations completes other approaches, and above all the principle of Management by delegation. The substance of Management by Exception rests in the fact that superior is called in exceptional situations only, in all other events the subordinate processes the tasks individually and individually decides on situations that arise. If serious deviations from normal situation occur, superior as a nearest higher instance designated for posting on the new situation and orders are expected from him (Rumpf, 1991).

All of the tasks that must not be taken into account by the superior are delegated. Management by Exception represents a certain relief for the leaders. Only in the event of extraordinary situation, which are out of the decision scope of the subordinate, the leading force acts. This extraordinary situation occurs when the scope of subordinate's decision-making is exceeded. Subordinates act in strictly specified borders. To normal situations belong those, that are within these limits and the subordinate is capable to solve them individually and responsibly. Eventual extraordinary situations fall within the scope of decision of the leading force. Powerful management information and control system is necessary. In this way, we increase the reliability of speedy reaction. One must not forget that the development of a new extraordinary situation might lead to new definition of the goal. By these means, the leading forces are freed from routine everyday decision-making and are for the disposal for other tasks issued by the management. Own responsibility of the superior is increased in his scope of action and thus it prevents his overloading, when deciding on each and every situation. Following aspects should be emphasized in order to prevent possible problems:

- Management by Exception requires clear goal definition.
- Communication slowdown prevents early reaction.
- Extraordinary situations can be evaluated improperly.
- Even straightforward activity, within the scope of activities must be evaluated and approved.

- Faulty information can cause problems in coordination (Stroebe/Stroebe, 1992).

MbE principle must often face heavy critique, due to the fact that it brings only negative information to the superior and everyday routine cases do not get to them; however as was already said, it brings the advantage of freeing the leaders from decisions and results in a higher effectivity especially what regards the company generated outputs. Correct definition of borders in which the subordinate can act on his own is still the central problem of the Management by Exception concept. If the borders are set too far, there is a real threat, that the subordinate, who from this point of view does not dispose with such qualification as his superior, might adopt a wrong decision. On the other hand, if the borders are set too near, the individuality of the subordinate will be lost and the effect of freeing the superior from work will vanish (Rumpf, 1991).

Management by Delegation, what can be translated as, leading by Delegation of responsibility and decision competence, strives to eliminate the authoritative-patriarchal style of leading, for which are typical: individual task resolution, obedience and orders. As a concept of leadership, the principle of delegation is less specific than lower discussed model of Management by Objectives, even though the common points remain the same: the tasks are assigned to the subordinate on his own responsibility and individual actions. In this principle of delegation, the influencing of subordinate is being done by issuing work orders and behavior guidelines - on the other hand in case of Management by Objectives model the influencing is being carried out by individual goal setting and eventual frame conditions.

In the whole spectrum of these guidelines and orders, that are specified „too tight“, the subordinate can or actually must contribute to leading by his own activity. As was already stated the principle of delegation could be implemented also in relatively authoritarian structures, as it is visible on the example of bureaucratic style of leading.

The principle of Management by Delegation presumes that each employee receives his/her own field for delegation, competences and responsibility. Within the framework of this area, the employees will work on their own. Any decisions that must be dealt with are resolved at the level, where they belong. These leading forces, that are on the other hand subordinate in other areas, take care of all leading as well as subject-matter tasks. In case of the leading tasks person accepts his/her own responsibility for his/her decision. In case of the subject-matter tasks person accepts his/her own responsibility for his/her actions. It is necessary to insist on a rule, that a leading force cannot accept responsibility from employees if the employees do not have the possibility to forfeit their responsibility in favor of the leading force. Exceptional cases are discussed between leading force and employees.

Model of Management by Delegation is due to these traits very frequently criticized; therefore, models Management by Objectives or Management by Exception are preferred:

- Leading forces always interfere with the work of their subordinates.
- Emphasis is put on thinking in areas/fields rather than holistic thinking.
- Partially the process of delegation is perceived is the transfer of unattractive tasks
- The leader has the monopole for decision-making, common decisions retreat to the background.
- There is a higher tendency towards orientation on more tasks as compared to the goal-oriented thinking.
- The influence of informal communication is not sufficiently taken into the account, hierarchical communication is prevalent.
- Job description often specifies only detailed tasks - not goals.
- Employee remains with more responsibility for execution and his actions.
- Sometimes the responsibility from the employee is destined to the leaders.
- Management by Delegation practically eliminates motivation (Stroebe/Stroebe, 1992).

Management by Objectives means leading through goals or, if we take it from the view of the subordinate, leading through uniting on one goal. It is necessary to note, that in German speaking countries there is no unified translation of the term Management by Objectives.

Management by Objectives can be best described on an example: Superiors and/or management discuss with subordinates a goal in a specific area. By means of a statute or mutual agreement is then specified a goal for the concerned area of the company. Leaders of the concerned area in the company try to conform to frame conditions, with relative freedom in their actions. Management of the company carries out in regular intervals the fulfillment of goals in the relevant area, than follows the process of company area leaders' performance evaluation.

Management by Objectives therefore offers advantages for both superior as well as for subordinate: Management of the company is no longer responsible for the individual areas of the company; Leaders of the concerned can express their own initiative or independence – For many of the leading forces, is this very interesting challenge. In any case, the Management by Objectives is not limited to the highest level possible; the application of Management by Objectives is much more useful in those areas, where workers can master the situation individually, on their own responsibility (Rumpf, 1991).

Everyday company stereotype has shown, that the idea behind leadership models does not rest in their earliest acceptance without any further consideration and criticism, but these models represent only idea base for the leadership concepts; consequently, tendency develops toward the use of only the most effective leadership mode parts. We basically divide Management by Objectives on two approaches behavior oriented and pragmatically oriented approach:

- Supporters of the pragmatically oriented approach are dealing with questions from practice and the emphasis is in the research of the goal setting process.
- Advocates of the behavior-oriented approach insist that the Management by Objectives should be presented and should be taken into account with respect to the interests of the employees.

In company practice there is often an effort to enforce cooperative concept of leadership in line with corresponding management behavior. As tools, the style of leadership and instruments as the basics of leadership are formulated. If those are successful, we can talk about leadership concept realization. As is generally known, this is the main crux of the problem; it is much easier to present the basics of leadership than to practice the relevant leadership. Thereby, the need for constant control of the behavior is generated, so that the concept of leading could be constantly optimized. If we omit this view, any specific results cannot be derived from the fundamentals of leading. As a premise of successful application of Management by Objectives is the cooperative search for goals, providing that in the process of goal planning as well as control should be engaged all of the Management levels. In order to utilize the Management potential sufficiently, individual goals in sense of the layered concept should not be situated too high or too low (Gabele/Liebel/Oechsler, 1982).

Creation and planning of the goals are more or less starting point of the Management by Objectives process. In the term goal formulation, we understand both quantitative as well as qualitative measures. This process influences all of the leading functions; important leadership functions find their basis in the basic principles of leading. In order to successfully fulfill goals in sense of the Management by Objectives concept, it is very difficult to include diverse aspects and conditions. In literature, the Leadership concepts are divided into 5 principles:

1. Goal orientation principle, i.e. Allocation of tasks to employees is carried out in connection with specified goals.
2. The principle of multi-phase goal searching process, i.e. expected goals are the result of multi-phase process, starting with company goals and ending with specification of individual small goals.
3. The principle of decision-making competence delegation, it means decisions regarding the implementation of the goal are delegated, providing that the employee has the space to choose specific measures, in any event he is however responsible for his/her actions.
4. Participation principle, expects the utilization of until now unused capabilities and skills, because the worker is taking part on the process of goals setting and control.
5. Performance oriented principle, i.e. specific target tasks assume the existence of evaluation criteria that are “invited” to the process of achieved goals evaluation (Hentze/Brose, 1990).

It is necessary to insist on the fact that only leadership model structures that originate in the organization and have the potential to motivate the workers are the right ones.

## **The Situation Leadership Models**

In the context of the leadership models must be included also the situation leadership models. On the other hand, trait approaches as well as behavior theoretical approaches, where the relevant situational variables are only in a limited extent or not at all accounted for in the process of leadership. Fiedler’s approach is a mature step towards

this direction. Fiedler's contingency leadership model, developed on base of empirical studies, is considered as a fundament of the leadership situation theory. The result is that, the success of leadership depends on the cooperation of until now neglected situational variables and practiced leadership style. Fiedler's approach has therefore a historical significance: It is a theory that offers recommendations for actions as well as for the process of leading according to the actual situation (Rumpf, 1991).

Fiedler's model builds on the premise, that for example efficiency of a workgroup is governed by interaction between the leader and workers or from his behavior as well as from the degree of situational preference in favor of the leader. We know three basic variables that are defined. Subsequently Fiedler came up with another implication, i.e. that present way of selection and integration of leader personality is insufficient. Personal traits even if they are supplemented by experience from other situations, do not give absolutely any guarantee for success.

Fiedler doubts possible success in case of short-term training programs for superiors for the purpose of their behavior modification. If possible at all, than maybe after a couple years of intensive psychotherapeutic care. Fiedler's basic premise still remains: Either find a proper leader personality for the given situation or it is necessary to modify the situation.

In modern literature, there was a lot of criticism against Fiedler's model. Contingency model is despite all of the criticism one of the most complex behavior leadership efficiency theory. Fiedler's approach was able to incorporate a change in the process of leadership thinking research and with its activities; it gave significant impulse for other activities. In this time period, no other model has gone so far as this one. However according to general estimates, it is yet too early for relevant and responsible utilization of this model in personal decisions. The importance of Fiedler's approach does not lie in the model of leadership, but much more in the knowledge theory.

Fiedler's approach was further developed by scientists Vroom and Yetton, what was followed by presentation of a new situational decision-making model. From the viewpoint of superior or subordinate seven symbols of situational conditions were that are either present or not. Theoretically, with two variations of each symbol and 8 symbols we get to altogether 256 various situations, from which the authors have selected only 14, that are considered practically meaningful (Bisani, 1985).

Model is embroidered with its seemingly present preciseness. The model claims, that it can identify the correct method of decision-making in order to achieve the goal of the organization as soon as possible. In its optics are present only two formal aspects, first is the quality of decision and the second is the acceptance of the decision by the concerned employees. Model seems to be logically build and transparent in its basic structure. Out of reach are the impacts on the process of leading, as for example personality structure and status of motivation as well as other situation factors. The result is such, that this model is closer to decision-making model than to the leadership model. With the assistance of the decision tree, it can be recorded on a diagram. Five ideally typical styles of decision-making are confronted with types of problems, that are according to the degree of groups and their members' participation differentiated in the process of decision-making. It focuses on seven types of decision-making rules that can be deduced with respect to the validity, so that the division according to types could be justified. Method of decision-making cannot be deduced from pure air, in order to get to the correct method of decision-making we must utilize the decision tree. One of the aspects of the problem is the time necessary to come up with a decision, completely contrary effect has the process of decision-making on motivation and work satisfaction.

Less successful were all of the experiments trying to prove this model empirically. Within the framework of research, the leading forces were forced to classify the situations according to the chosen decision-making strategy and expected result. These data were than compared with expert data. The comparison has shown that the higher the identification with the logical build and structure, the more similar was the data in comparison with the data collected from experts.

Diverse leadership models anticipated unified type of personality and concluded independent and optimal style of leading from different situations and extent of impact. 3-D model for the improvement of management performance that was developed by W. J. Reddin observes, in comparison with behavior grid, only one style of leading. Reddin criticizes in the first place the normative requirement of the behavior grid, the 9,9-style of leading as an optimal style. He also expressed a demand to incorporate into the research the environment of management. 3-D-Model is based primarily on two fundamental dimensions of the leadership: task and relationship orientation.

The third dimension embodies a substantial development: Efficiency of the leading power, providing that the efficiency is a scope of results achieved by the manager at his position (Stroebe/Stroebe, 1992). If the manager only looks efficient or he strives for personal goals, he cannot be considered truly effective. Results achieved are always more important than the actions. Efficiency is therefore not only the capability or property that can or cannot be presented by somebody – it is much more about correct understanding of the specific leadership situation and consequent influencing. Before the situation is resolved, it must first be evaluated.

In coordination environment, Reddin differentiates, with reference to Blake and Mouton, four types of styles, so-called basic styles: Integration style, relationship style, methodical style and task style. In practice, are these basic styles used efficiently as well as less efficiently. It depends on the environment situational conditions, which style of leadership will be the most successful. It is noteworthy, that not every situation can be managed with similar tools: Training is an important pillar of the 3-D-Model.

Two other representatives of modern Management have developed another Model that builds on the leadership research knowledge acquired in past centuries and offers the manager help in various different leadership situations (Stroebe/Stroebe, 1992). The starting point is such that the effective behavior of the superior depends on the degree of employee maturity, providing that the degree of maturity is a consequence of motivation and competence. Maturity is also the necessity, to specify goals and take over the responsibility. We know 4 degrees of maturity.

Hersey/Blanchard model is illustrated in two axes, providing that one of the axes illustrates behavior with respect to task and the other axis illustrates behavior with respect to colleagues. From the second axis you can see, how is the employee motivated by the leading force. In other words, it means: Depending upon, whether the behavior towards colleague is strong or weak, discussions are frequent or seldom, compliments are granted or not, one can feel assistance and support - or not. From the behavior with respect to task, it is visible, how precisely is the task specified by the leading force for the employee. Depending on the fact, whether the emphasis on tasks is bigger or smaller, Management issues more or less orders that are to be carried out by the employee. If the tasks are delegated, emphasis on their completion is weaker. If we associate emphasis with tasks as well as with employees, we can get 4 different styles of leading.

## **The Managerial Grid**

On base of dimensional orientation towards task or towards employee was generated a scheme for leadership behavior, known as behavior or managerial grid. This is an effort to classify a multitude of possible combinations and to illustrate their interdependence in two-dimensional coordinate system. Two-dimensionality of the behavior grid consists of two leadership dimensions: task and employee orientation. For each axis, there are 9 degrees between low and high intensity, thus creating a grid with 81 fields. Each of these 81 fields describes possible leadership behavior and captures possible combination of both leadership dimensions. Leadership styles are not incorporated in the Blake/Mouton model, e.g. authoritative or sympathetic; they are by contrast specified in two numbers that specify the position of the superior in the grid. First number measures the task orientation; second number specifies the employee orientation. At this point, it is not necessary to go over all of the combinations one after another.

Blake/Mouton explicitly promotes 9,9-leadership style. They build on the combination of tasks and employees, 5,5-compromise is not worth the effort. Considering the fact, that the 9,9-leadership style is an ideal beyond reach, realization of this goal remains only a vision. Due to this, most of the behaviors concentrate around the optimum line, i.e. diagonal from 1,1 (left bottom) to 9,9 (right top). The further are the leadership styles from this line, the less they are convenient.

## **Limits of Model Thinking**

A huge amount of different approaches to all possible leadership styles leaves us with conclusion, and not only due to insufficient empirical base and contradicting results, that the holistic leadership theory simply does not exist.

Scientists doubt, that it will be possible to reduce such complex system to the level of if-then relations, just like what the contingency model strives for, due to the simple fact that the multitude of various situations and relations is just too big: (contingency model). Providing certain leadership behavior occurs, it is necessary to create corresponding leader situation.

Leader, due to the complexity of the diverse leadership situations in practice, will always speculate on those factors that are the result of his development, his experience and wisdom. His behavior is therefore limited only to what was successfully used in the past. Other measures of influences will not be taken into account; huge amount of simplification is going on here. After all, almost all of the supporters of the individual models warn before such manipulation or action. Fiedler's model is restricted only to three situational symbols, what in two positions of each symbol means 8 combinations. After all situational factors can be completely left out and consequently only one style of leadership can be promoted, as for example managerial grid 9,9-style of leading or Harzburg Model of leadership with creation of relationship towards an employee. However, surveys have shown, that such simplification base on circumstances simply cannot guarantee necessary success.

Each leadership model has its advocates and its adversaries, successes and falls are discussed in detail; time has shown however that advocates are dominant. What can this be associated with is not yet clear. It is however clear, that connection between success and failure can be looked for in positive or negative situational conditions.

## **Actual State**

It is very hard to evaluate the actual state of the whole process of leadership research in its whole scope. It can be partially deducted on base of a scientific specialization, which have been utilized for a long time and has led to many different theories. On the other hand, many more marketing interests are coming to the forefront, what can be seen on the number of different leadership models. From the outside view, the process of leadership investigation is somewhat questionable.

The research of leadership is trying to find theoretical fundaments for leadership structures and processes, from which the content of the leadership "technology" could be developed. Present science on leadership relates mainly to influence factors, leadership goals and tasks, properties of the leaders and those being led, relations between the leaders and leaders behavior. Nevertheless, even today a popular notion is that there is no appropriate leadership theory in the scientific sense. Today's leadership science focuses just like in the past on classification, description and systematization of leading. The huge variety of present theoretical approaches can be considered as a theoretical framework, in other words the predecessor of exact theory.

On base of the knowledge, that to this day there is no comprehensive and generally accepted leadership theory, we will very often use the term leadership theory to call the innumerable leadership models and theoretical approaches. After all, individual theoretical approaches differ only by various forcibility and emphasis on certain aspects of leading.

There is unity among scientist and practitioners on the fact that it is necessary to try and work out, such comprehensive leadership theory. However, it is evident, that this theory must have a different character, than that to which we are used to in natural sciences (Worpitz, 1991). It is surprising, but all of the models and approaches in the last decades originate from American Management Schools.

Conditions for leading are constantly changing; and this is decisive also for the future development. Research of leadership must stand against the challenge of modern business: Models, concepts and theories must accommodate to modified conditions that are characteristic for the area of leadership in the last decades.

Leadership science must build on psychology, sociology and business science. As the results of the economy show, concepts and models are based mainly on social-psychologically oriented research of leading that means that social-psychologically oriented psychology of leading will guide the direction of leadership research also in the future, and that contrary to the fact, this heading is starting to show some deterioration. This is attributed to the fact, that scientific perspective was focused on a specific, frequently too narrow heading (Wiendieck/Wiswede, 1990).

When we deal with various leadership models, we come to a conclusion that all of them have concentrated on emphasizing of a certain trait and none of them has strived to put all of the various results from various fields into one comprehensive leadership theory. The causes might be the variety of the topics and it is not possible to derive without serious complications a multi-layer field of problems without structure. Partially responsible is the formulation of the leadership science.

On one hand the leadership science did not evolve from business science, but from various sociological disciplines, even on sleeping, as e.g. sociology or psychology, on the other hand the leadership science developed due to the need for recommendations for action and solution of problems that have arisen, as well as for the purposes of formulation explanation.

Demand for practical models has partially led to assertion of Learn-theory approaches, and partially to the development of easily comprehensible theories, or models, as well as to almost unlimited acceptance of results from various surveys. The knowledge that remained is such that, that the model has become exact and clear by narrowing down of certain aspects, but reliably is still more distant from the circumstance of the reality.

Models that are utilized in practice generate certain amount of dynamics. Advocates of various concepts frequently negate all of the criticism and consider their approaches to be confirmed, by the fact that with each new model we get nearer to success in leading. This may be the source of the problem; this is why big successes of various models or theories from USA were not reproducible in Germany. The reason for this is the fact, that the results of the American consultants are accepted without criticism and with no hesitation, no differences in value systems, traditional normatives due to completely different business-, society- and social-structures are taken into account (Bisani, 1985).

## **Tendencies**

Within the framework of science and various different theories and models development, again a question arises, where the future challenges are. The leadership aspect must accommodate to ever-changing conditions. On one hand, this change affects the level of values, due to the fact that superior as well as subordinates require motivation background, on the other hand, it affects the area of structure through new forms of communication, or actually through new technologies. Utilized approaches or models are more and more behind the reality and just cannot keep up with everyday reality and company practice circumstances. Science and research have to face these modified conditions; Goals, techniques as well as leadership functions must be in face of such challenges newly reconsidered (Wiendieck/Wiswede, 1990).

Only change can stimulate the companies to internal renovation/innovation. The times when situational conditions were presented as relatively stable are long forgotten. We see everyday how fast the conditions around us are changing. In addition, there is no visible end to these changes: Globalization, internationalization, new information systems, networking and an increase of complexity are the key words of nowadays. Moreover, even stronger turbulences are ahead of us.

Constant change is transferred also into the society, so it is not only short-term, insignificant interference but also something much bigger. A new image of a man in the company is being created. More and more people will understand, that their profession is closely connected with the meaning of the word "profession", and that the profession should besides the purpose of making money contribute to the overall development of personality, providing that the organization of the companies would be different (Miehle/Weisflog, 1998).

The results of the research are distributed very slowly due to the complexity of leading; this distribution is being done usually through consultants. Existing approaches are often accepted without any criticism or investigation of their applicability, they are quoted everywhere and figure as the only option. In practice, the models offered and/or sold to companies are usually very simplified and thereby very comprehensible for everybody. On base of various backgrounds a development of so-called brand products has occurred. Mentioned leadership models, Harzburg Model, Model of Management by Objectives as well as managerial grid have therefore become known as brand names. What regards the situation leadership models similar success has accomplished the model from Reddin and in a slightly smaller extent the maturity model from Hersey/Blanchard.

Considering the fact, that brand name products respond to demand and supply, the same applies to leadership models. In practice, a lot of attention is given to the process of distribution, sale and presentation of the model, with goal to start up the demand. Individual publications are formulated purposefully evasively so that the customers become curious and authors could receive orders for subsequent seminars and consultations (Bisani, 1985).

There is very little evidence on the results of the individual models that could prove the true success of the model. All of the efforts for creation of generally accepted framework for the purpose of individual model and concept comparison have stumbled. First of all, the generally accepted criteria are missing. As a first should be the employee satisfaction: The question is, according to what procedures should be this satisfaction evaluated and on the other hand, how is this term defined or limited. As a second should be the view on the successfulness of the individual leader: This is the place of confrontation, due to the fact the neither leader behavior, nor situation remains the same for an extended period of time. Besides the survey period always proves to be insufficient; subjective and objective traits always form mutually corresponding influences. Moreover, as a third factor, during discussion we cannot overlook the success of the individual company. Research has shown that even if the conditions are as close to reality as possible, the results cannot be identified as representative; besides there is an important role for values and norms. Authoritative behavior therefore brings poor performance and missing motivation, what leads to uprisings and aggression, cooperative and participative behavior on the other hand increases performance and motivation and improves interpersonal relations. In conclusion, we insist, that the results are always more significant.

The present complexity cannot be eliminated due to the natural human individuality and ever-changing situations. If we consider this fact, it is clear that leadership science must create a certain framework for actions, rather than modify leading forces into simplifiers. This would mean, that the spectrum of models, approaches and concepts would be given, so that according to situation the best solution could be adopted. At present, there is not a single construct for the generation of instruments that could describe the area in which the leadership science is operating. Here should and must be the leadership science very active.

Scientists and practitioners pose questions, whether it will be possible to work out typical statements on human behavior. At present, the Leadership science shows every indicium of constant development, each approach, each concept and model profits from the imperfections of its predecessors. Practically oriented science, with respect to necessary guidelines for business practices, must contribute to this effort with its share.

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# Impact Of Enforcement And Co-Management On Compliance Behavior Of Fishermen<sup>1</sup>

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## Abstract

The purpose of this paper was to examine the factors affecting compliance behavior with regard to zoning regulation of 284 Peninsular Malaysian fishermen. Frequent violations of regulation will impact on the demand for protection, and therefore lead to greater expenditure on law enforcement. The theoretical models of compliance behavior tested include the basic deterrence models, which focuses on the certainty and severity of penalty as a key determinants of compliance, and models which integrate economic theory with theories from social psychology to account for legitimacy, deterrence and other motivations expected to influence individuals' decisions whether to comply. Policy makers who want to improve compliance face two choices: the first choice is whether to focus only on building staff capacity to detect and correct non-compliance, or the second choice a combination of strategies building staff capacity and at the same time building commitment among fishermen so that they will comply with regulations. The results of the empirical analysis provided evidence of the relationship between co-management strategies on the one hand, and types of fishermen on the other. These findings imply that co-management activities should be strengthened to complement the deterrence strategies in the management of fishery resources in Peninsular Malaysia.

## Introduction

Over-fishing and declining marine fish landings, especially along the West Coast of Peninsular Malaysia are two important issues in Malaysia. According to Department of Fisheries Malaysia (DOF), this stagnation or decline in coastal fisheries production is expected to continue as the maximum sustainable yield has been reached (DOF 1997). This is of great concern to economists, as the fisheries sector in 2000 contributed 1.6 percent to Gross Domestic Product (GDP) and employed 81,994 fishermen (DOF 2002).

Like in most countries, the fishery industry of Malaysia is an open-access resource, which means fishing is open to any new entrant. Even though the fishermen may be well aware of catching less fish today, they are also aware that any future catch may be large enough to make it worthwhile to 'invest in the stock'. They also know that any curtailment of their current catch simply results in an increased catch for someone else. As a result, fishermen may try to "harvest" what they can, when they can, before anyone else catches it.

With the introduction of more progressive and efficient fishing techniques, as has been witnessed over the past decade or so, the need for stock management policies has become more and more acute. New technology means that fishing is no longer limited by the captain's skills and the crew's strength. A fishing vessel can use directional sonar to help captains "see" shoals of fish and even distinguish between species. Through the implementation of a Vessel Tracking and Monitoring System (VTMS), based on the *Global Positioning System* and *Inmarsat* satellite communications technology, fishing vessels can now lay their nets precisely where fish have schooled in the past. At the same time VTMS will allow the authorities to detect and identify the location of the fishing vessels (Malaysian Institute of Economic Research (MIER) 1999).

The function of existing regulatory institutions like the Department of Fishery (DOF) is to protect fish resources from over-exploitation by traditional and commercial fishermen. The DOF typically controls fishermen activity through monitoring, surveillance, and enforcement under the Fisheries Act (1985). Policy makers who want to improve compliance face two choices: the first choice is whether to focus only on building staff capacity to detect

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and correct non-compliance, or the second choice a combination of strategies of building staff capacity and at the same time building commitment among fishermen so that they will comply with regulations.

Some scholars of “Environmental Management” like Morelli (1999) think that the reliance on enforcement statistics is not a healthy indicator of enforcement programs. Morelli points out that more arrests and convictions do not mean enforcement institutions have done a good job. He argues that only when there is less crime and fewer convictions, then we can consider a regulatory institution is doing a good job.

These points make a valid argument for not having such a heavy dependence on enforcement numbers. Volokoh & Marzulla (1996), and Morelli (1999) argue that society does need to have a strong enforcement program, but fines, penalties and criminal prosecutions should be a last resort, used only after the agency has tried to encourage compliance or where obvious environmental damage occurred from not following the regulations.

## **Research Problem**

The fishing industry in Malaysia is characterized by a distinct dualism between the small-scale (traditional) and the large-scale commercial operators. Small-scale defines as fishing within five nautical miles from shore along the coastline of their fishing villages. Mostly use long-tail outboard-motored fishing vessels of less than 10 ton gross weight. The main fishing equipment used are push net, shrimp drift gillnet, and hook and line. The operations of the large-scale commercial fishermen, on the other hand, are carried out on a larger scale and are highly profit motivated. Commercial fishermen use motored fishing vessels of over 10 gross Tonnes (GRT). The main fishing equipment for commercial fishermen is trawl, purse seine, and other large gillnets. To reduce conflicts between the small-scale fishermen and commercial fishermen, the Fisheries Authorities have established Management Zones (Fisheries Act 1985). The establishment of Management Zones is aimed at providing equitable allocation of the fisheries resources among different sizes of fishing vessels and types of fishing equipment. The zoning system determines the allocation of fishing grounds, which is based on the types of fishing equipment, size of vessel, and ownership. Under the Fisheries Act (1985) of Malaysia the commercial fishermen can only operate in the waters beyond 5 miles from the coastline.

In spite of the prohibition on trawling within five miles from shoreline, trawlers are often found fishing within these areas. The ban on commercial fishermen operating within five nautical miles of shore (the area in which small-scale fishermen do most of their fishing) was imposed to prevent destructive gear from degrading coastal fishing areas and tearing up stationary gear (such as stake nets and stationary traps). Conflicts among small-scale and commercial fishermen mostly occur when commercial trawlers stray into the prohibited zones. Numerous reports and personal interviews with fisheries officials and fishermen suggest that commercial fishermen persistently ignore the ban, creating smaller catches of fish for small-scale fishermen.

When the rate of non-compliance with regulations is thought to be significant, policymakers generally focus on increased deterrence, which in practice usually means greater enforcement effort as the only solution. However, effective monitoring and enforcement means higher expenditure and the Government may not be able to bear such costs. Given the high costs of monitoring, a better understanding of fishermen’s motivation for compliance to the management arrangements is urgently needed.

The usual economic analysis of enforcement in fisheries, in common with that of the fishery management problem in general, assumes that fishermen act in all circumstances as self-interested rational agents. Given a choice of alternative actions, firms will seek to maximize profits and individuals will seek to maximize their utility in monetary terms, and the illegality of an action is only reflected in its expected cost. The shortcoming of this assumption is that not all fishermen may want to violate the regulation, even though it is financially profitable to do so. The role of moral and social norms, as well as instrumental factors such as social pressure, in shaping individual behavior is examined extensively in the sociology and social psychology literature. These factors, in addition to threats of sanctions, are recognized as important in determining individuals’ compliance decisions. Compliance with the rules and laws imposed by an external authority has been shown to depend to a significant extent on the perceived legitimacy of the authority and the laws it enacts. It is often suggested that greater involvement of fishermen in the process of management, through local management or “co-management” approaches will lead to

increased levels of compliance because regulations will then be accorded greater legitimacy as a result. There appears, however, to be little empirical evidence to support this assertion.

## Literature Review

A large number of survey studies have been conducted to test the economic model of criminal behavior as originally formulated by Becker (1968). Sutinen & Andersen (1985) examined the impact of enforcement under the Magnuson Fisheries Conservation and Management Act of 1976 (MFCMA) in the United State of America. They raised a question on the assumption of most literature on fisheries management and regulation, i.e. those laws that can be perfectly enforced without cost. Their empirical result showed that the expenditure on enforcement of MFCMA is high relative to the potential benefits from the United States fisheries. They presented a model of fisheries law enforcement, which was used to examine how fishing firms behaved and how fishery policies were affected by costly and imperfect enforcement of fisheries law. Sutinen & Andersen (1985) concluded that enforcement costs were a major determinant of regulatory policy for nonexclusive resources.

Sutinen, Rieser & Gauvin (1990) used deterrence theory to conduct an econometric study of regulatory enforcement and compliance in the commercial inshore lobster fishery of Massachusetts in the United States. They set five testable hypotheses, namely: (1) lobstermen who were more income-dependent have a stronger conservation motive and were more likely to comply with conservation and management regulations; (2) lobstermen with more years in the fishery were more likely to perceive and appreciate the long-term benefits of conservation and management measures, and were more likely to comply with regulations; (3) younger lobstermen faced greater financial pressure and were more likely to violate regulations to realize short-term gains; (4) lobstermen with relatives in the fishery have a greater interest in the long-term health of fishery and were less likely to violate regulations; and (5) frequent violators tend to remain in the fishery for short-term gains only.

The model used by these researchers assumed that violation rates were a function of probabilities of detection and conviction, level of economic gains from violation activity and variables reflecting fishermen's commitment to the fishery. The data from a survey of people holding commercial inshore lobster licenses (lobstermen) for the year 1986 were estimated using ordinary least square (OLS), tobit and logit regression. The results indicated that lobstermen comply with the regulation even when illegal gains were so much larger than expected penalties. Many of them refer to the need to "do the right thing". That was, they express an obligation to obey a set of rules imposed by the authorities.

The first compliance study carried out in Malaysia was by Kuperan & Sutinen (1998). They conducted a research on the compliance behavior of fishermen with zoning regulations in the Malaysian Fishery. In their study, Kuperan & Sutinen used both Positive Theory (Deterrence Theory) and Normative Theory (Social Influence and Cognitive Theory) to estimate a compliance model. In their study on a sample size of 318 trawler fishermen, they included variables relating to social influence, behavioral norms and the legitimacy of regulations. They noted that, in practice, the costs of enforcing fisheries regulations result in relatively low probabilities of detection, but penalties were not usually sufficiently high to produce a deterrent effect. Despite this, the authors observed that a high proportion of fishermen complied with regulations. This led them to look for other factors explaining individual compliance behavior. The researchers developed an extended model that alongside monetary incentives included variables such as "moral obligation" and "social influence". In their model, moral obligation included variables related to moral norms, as well as the perceived legitimacy of the regulator and the regulations.

The three objectives of Kuperan & Sutinen study were: (1) to describe the incidence of non-compliance of trawler fishermen with the zoning regulations in Peninsular Malaysia; (2) to identify the factors responsible for the observed non-compliance, and then develop and test a theoretical model of compliance that extends the traditional deterrence model of compliance, and (3) to propose strategies for improving compliance.

They employed the ordinary least squares (OLS) method to run the first stage equation of probability of detection and conviction as a function of resources and evasion inputs. Then, they applied Logit and Tobit models to explain compliance decisions for individual fishermen.

The key results of their study were that income potential plays a major role in the compliance decisions of fishermen. When the difference in the catch per unit effort between the zones become more pronounced, increasing the incentive for the trawlers to violate the zoning regulation. The researchers also found that moral development and social influences factors were statistically significant in explaining compliance behavior in the normative model. The normative perspective on compliance behavior, which emphasized the role of legitimacy of enforcement institutions in securing compliance, was not significant by their estimates.

Their findings have two interesting implications. Firstly, it becomes theoretically possible to observe full compliance, even where enforcement is imperfect and costly, if the regulations accord with the individual's sense of what is "right" and the regulator and regulations are considered legitimate. It would therefore seem that (i) individual perceptions of "what is right" influence compliance decisions; (ii) such perceptions may also determine the perceived legitimacy of rules and regulators; and (iii) greater legitimacy leads to greater observed compliance.

Kuperan & Sutinen (1998) developed their model, which included legitimacy, moral and social influence variables, in a single regression function. The difference between this study and Kuperan & Sutinen's study is that this study will construct a set of variables related to the stated moral obligation to comply with, a set of variables related to the perceived legitimacy of the regulation, and a set of variables related to the perceived social influence on individual compliance decision; and then use the index of moral, legitimacy and social influence in the regression analysis.

Previous studies concerning compliance with fisheries regulations have followed two explanatory lines of argument. The first deals with the positive theories (i.e. deterrence theory), i.e. the higher the probability of detection and the rate of fines imposed, the lower the rate of violations committed. The second line of explanation focuses on normative theories, i.e. using factors that cause fishermen to become conscious of fisheries regulations. Factors such as the fishermen's personal characteristics, their "psychological/attitudinal" orientations, and existing fisheries policies were the focus of this line of enquiry. Age, experience, fishermen's income, household characteristics, their perceived attitudes toward regulator and regulations, moral values, as well as their perception of other fishermen's compliance activity affect their own compliance with fisheries regulations.

The operational variables that will be used in the present study were selected from the related theories and studies that have been reviewed. The model used was an extension of the work of Kuperan & Sutinen (1998) with certain modifications, especially the effect of co-management programs on compliance behavior, programs introduced in 1994 in Malaysia and other South-east Asia countries such as Indonesia, Philippines, Thailand and Burma (Pomeroy, Katon & Harkes 2001).

## Theoretical Framework

The main assumption in the economic analysis of criminal behavior is that the individual is a rational decision maker who considers the costs and benefits of participation in illegal activities. In the present context, fishermen are assumed to subjectively weigh the potential gains and losses of committing a regulatory infraction. A fisherman's decision of whether to comply with regulations or not is modeled as a function of: 1) the probability of getting caught violating fishery regulations (*PDETECT*), 2) severity of the penalty (*PENALTY*), 3) illegal gains (*IG*), 4) a set of demographic and individual characteristics (*EXPER*, *CONV*, *HP*, *SIZE*, *EXPEVA*, *AREA*, *FSIZE*, *REG*, *INV*, *CONV*), 5) involvement with co-management activities (*CO-M*), and 6) a set of normative (non-economic) factors such as moral, social control and legitimacy factors. By incorporating the details of the fishery laws with the regulatory, economic and normative (non-economic) factors, a more complete assessment of the decision of the fishermen to violate the law can be developed.

An individual's utility from illegal activity (rule violation)  $U(V)$  can be written as a function of the anticipated monetary return under violation  $Y_v$ , the subjective probability of detection  $p$ , and of incurring an expected monetary penalty  $F$ , if caught and penalized, with the standard form

$$U(V) = (1 - p)U(Y_v) + pU(Y_v - F) \quad [1]$$

In many cases it may be assumed that in addition to the imposition of a fine  $F$ , the value of the illegal income  $Y_V$  will be forfeited if an individual is caught. Note that  $Y_V$  is the income under violation and  $Y_{NV}$  is the income under no violation. Then:

$$U(NV) = U(Y_{NV}) \quad [2]$$

Violation will occur if  $U(V) > U(NV)$  and that  $Y_V > Y_{NV}$ .

Time spent on non-compliance activity is assumed to contribute directly toward fisherman's utility in term of generating higher income ( $Y_V$ ). Income generated from illegal activity is used to consume goods that contribute to utility. However, subjective probability of detection  $p$ , and an expected monetary penalty  $F$ , if caught and penalized will also affect utility from non-compliance activity.

Within the standard economic framework of crime and punishment, the optimal remedy for non-compliance is

$$F^* = \frac{\text{monetary return under violation}}{\text{probability of detection}} = \frac{Y_V}{p(r)} \quad [3]$$

where the optimal fine ( $F^*$ ) is (at least) equal to the financial gain of non-compliance ( $Y_V$ ) divided by the probability of being detected and punished for the particular violation ( $p(r)$ ). Whereas  $p(r)$  shows that the level of resources  $r$  determines the probability of detection. For some fixed expected financial gain ( $Y_V$ ), the optimal fine will be declining when the probability of detection ( $p(r)$ ) increasing.

In this study the focus is on an illegal act, i.e. violating zoning regulations. Since compliance simply represents the certain outcome  $U(NV) = U(Y_{NV})$  we can focus only on the decision to violate or not to violate the regulations. The individual's expected utility from violation depends upon the expected monetary gain ( $Y_i$ ), the perceived probability of detection ( $p_i$ ), and the expected size of the penalty if caught ( $F_i$ ). The violation decision by individual's fisherman ( $V_i$ ) related to the first three of these variables as mentioned in deterrence theory can be written as

$$V_i = f(Y_i, p_i, F_i, \mathbf{X}_i) \quad [4]$$

where  $\mathbf{X}_i$  represents a vector of other variables including personal characteristics such as the individual's experience, size of the boat, fishing areas and involvement with co-management activities.

Dowell, Goldfarb, and Griffith (1998) and Hatcher *et al.* (2000) proposed a good theoretical framework on extended compliance model. In their theoretical utility framework, individual's behavior is influenced by their own moral values.

We can now re-write the supply of violations [3] to include index variables for moral obligation ( $M$ ), perceptions of legitimacy ( $L$ ), and social influences ( $S$ ). With this in mind we can write the individual's supply of violations function as

$$V_i = f(Y_i, p_i, F_i, CO-M_i, M_i, L_i, S_i, \mathbf{X}_i) \quad [5]$$

for the initial form for estimation.

## Data Collection Strategies

### Data Collection Strategies

The data for this study were collected using primary (standardized questionnaire) and from secondary sources. The nature of the study required primary data and information on co-management activities in the selected fishing areas. Data on compliance behavior were collected from primary sources. The questionnaire used in the study was developed over a period of three months (from April to Jun 2001) during which it was tested and retested with respondents in the study areas. Most of the questions used in the questionnaire come from Kuperan & Sutinen

(1998) and Hatcher, Jaffry, Thebaud & Bennet (2000). After the pilot study, changes were made to the sequence of the questions and their wordings to enable easier understanding by the respondents. The actual survey was undertaken in each of the study areas from November 2002 to April 2003.

Secondary data necessary for the study were obtained from different relevant sources. The Department of Fisheries and the Fisherman's Association were the two main sources of secondary sources. Moreover, visits to other statistics offices and district extension centers were made to collect more detailed data required by the study. Examples of data collected from secondary sources were names of fishermen who have violated the regulation and the Department of Fisheries activities.

### **Sampling Technique**

The unit of analysis in this study is the individual commercial fisherman in Peninsular Malaysia. As for drift net fishermen, the questionnaire was only given to fishermen's who have fishing vessels more than 20 GRT, which has to follow zoning regulations. The questionnaire was administered personally to 284 fishermen who were chosen using a disproportionate stratified random sampling basis. This study applied stratified random sampling to make sure the sample would provide more information within each group of fishermen. Firstly we stratified the fisherman population into three groups, according to the main fishing equipment being used in their fishing activity – trawl nets, purse seine nets and drift nets. Then, a sample of members from each stratum was drawn using simple random sampling.

A survey was conducted in selected fishing areas in Peninsular Malaysia where these three types of fishing equipment were used, namely, Perlis, Kedah (Kedah Utara and Kedah Selatan), Pulau Pinang, Perak (Krian), Selangor (Selangor Tengah and Selangor Selatan), Johor (Mersing), Pahang (Kuantan), Terengganu (Kuala Terengganu) and Kelantan (Pasir Putih, Bachok, Kota Bahru and Tumpat). Two states, Melaka and Negeri Sembilan were excluded from this study because in these two states, there were no trawler fishermen. There were two reasons for taking more than one region in this study. Firstly, the probability of being caught between regions was expected to be different, depending on the number of enforcement officers and enforcement activities. Secondly, it was easier to test the impact of co-management strategy between different regions, because the activities of Fishermen's Associations are expected to be different between areas.

It can be assumed that if Fishermen's Association (FA) committee members are themselves pro-co management, then the ordinary fishermen will tend to be more involved with co-management activities. In other words, if the members perceive their leaders to be supporters of co-management, then they will also be supportive of the program. For this reason explains the difference in activities related to co-management program between fishery districts.

Table 1 shows the sample size and population of licensed fishermen with inboard-powered vessels of more than 20 Gross Tonnage (GRT) or using trawl nets and purse seine nets as their main fishing equipment. The names and addresses of the surveyed fishermen were obtained from the records of the DOF (Department of Fisheries) and the Fishermen's Associations. All data were collected by means of face-to-face interviews with the skippers of the vessels. From the full sample of 284, 51% (146) was trawler fishermen, 27 % (77) (purse seine fishermen, and 22% (61) drift net fishermen.

**TABLE 1: SAMPLE SIZE FOR TRAWLER, PURSE SEINE AND GILL NET FISHERMEN**

Gear Groups	Number of respondents interviewed (sample)	Number of licensed fishing vessels (Population)	Sample as a percent of population
Trawl-nets	146 (51.4%)	4,609	3.2%
Purse seine nets	77 (27.1%)	748	10.3%
Drift nets	61 (21.5%)	400	15.3%
Total	284 (100%)	7,557	3.8%

**Statistical Analysis**

The data obtained from the survey questionnaire were analyzed by the statistical software package SPSS (Statistical Package for Social Sciences) and STATA. Results of the study were obtained by performing statistical tests including correlations, independent groups t-tests, chi-square and logit regression. The probability of detection ( $p_i$ ) and the probability of violation ( $V_i$ ) models were estimated using logit regression. The logit model extends the principles of generalized models to better treat the case of dichotomous dependent variables. Logit differs from linear regression in that it estimates the parameters of the model using maximum likelihood method instead of the ordinary least squares method, and the function used in the logit model is the natural log of the odds ratio (Ramanathan 1995).

**Pilot Studies**

As mentioned earlier, this study used survey instruments previously developed by Furlong (1991) and Kuperan & Sutinen (1998). However, we did some qualitative pilot studies before using the instruments. A pilot study was carried out on a small diverse group of fishermen (40 fishermen) to confirm appropriateness of the questions in the questionnaire.

The pilot survey also tested the responses of the fishermen. For example, how do they react, does the questionnaire make sense, and whether they co-operate and also to find activities related to self-regulation and co-management. After the pilot survey, we refined the questionnaire – by using the suggestions of the respondents to identify and change confusing, or offensive questions and techniques. We also found out that respondents took about half an hour to answer the questions. After refining the questionnaire, we used it as the survey instrument to conduct the actual survey.

**6. Analysis and Interpretation of Results**

This chapter reports the findings of the empirical analysis, starting with a checking the Reliability and Validity of instruments, descriptive analysis, and followed by the result from the hypothesis testing. For the hypothesis testing, the *t*-test was used to test the difference level of involvement with co-management activity between violator and non-violator fishermen. Then, the same technique was used to test the difference between mean income of violator and non-violator fishermen. This was followed by a chi-square statistic test to examine the relationship between violations of fishery regulations with the type of fishing equipment fishermen use (trawl-nets, purse seines, or drift nets). For both the deterrence model and violation decision model, we used the logit regression technique.

## Descriptive Statistical Analysis

### Comparative Analysis

*Research Question 1:* Is there any difference in experience, involvement with co-management activities, expenditure on evasion activities, and income between violators and non-violators among different groups of fishermen?

Descriptive findings for the respondents' compliance behavior are summarized in Table 2. For more information about respondents' profile, see Appendix G. We used comparative analysis to provide insight on four characteristics of the respondents (income, experience, size of the boat, and expenditure on evasion activity) between violators and non-violators, and among different types of fishermen (trawlers, purse seines, and drift nets fishermen). From the results, it may be seen that the mean of the co-management index is higher for non-violators than violators. The mean of the co-management index for non-violators (trawler fishermen) is 2.1, while for violators only 1.2. The result suggests that fishermen who are more actively involved in co-management activities are more tendencies to comply with the fishery regulations. The same situation occurs with purse seine versus drift net fishermen. Whereas the mean of the co-management index (*CO-M*) for non-violators (purse seiner fishermen and drift net fishermen) is 2.3, the mean of the co-management index for violators (purse seiner fishermen) is 2.2. However, the co-management index for violators (drift net fishermen) is only 0.8.

Fishermen's income was defined in the survey as the sum of the monthly cash income from fisheries activities. As shown in Table 2, mean income (*INCOME*) of violators was higher than that of non-violators. For example, the mean income for trawlers who violate the regulations (violators) is RM1,598 per month, while the mean income for non-violator trawlers (complier) is only RM1,102 per month. In other words, the result suggests that income might be one of the factors that influence fishermen to violate the regulations.

The result also shows that mean expenditure on evasion activity (*EXPEVA*) by non-violators is higher than that of violators for trawler and purse seine fishermen. For trawler fishermen, non-violators spent about RM2,194 per month for evasion activity, compared to violators, who spent only RM1,349 per month. The same characteristics were found for purse seine fishermen. Non-violators (purse seine fishermen) spent about RM2,364 per month for evasion activity, compared to violators, who spent only RM1,465 per month. These descriptive findings indicate that fishermen who spend more on evasion activity are more likely not to get caught by enforcement officers.

### Inferential Statistics: Pearson Correlation

*Research Question 2:* Is there any correlation among these variables: experience, age, level of education, size of the vessels, horsepower of the vessels, income and co-management activities among fishermen in Peninsular Malaysia?

The Pearson Correlation Matrix for the seven interval-scaled variables is shown in Table 3. From the results, we see that the co-management index is, as would be expected, significantly, positively correlated with experience, age, and size of the boats (*SIZE*). That is, more experienced (*EXPER*) fishermen are more likely to be involved with co-management activities (*CO-M*). Fishermen with bigger boats (*SIZE*) are also more likely to be involved with co-management. Age (*AGE*) is negatively correlated with education (*EDUC*). That is, older fishermen have less education compared to younger fishermen. However, we found that older fishermen (*AGE*) are more likely to be involved with co-management activities (*CO-M*).

**TABLE 2: DESCRIPTIVE STATISTICS: COMPARATIVE ANALYSIS BETWEEN GROUPS OF FISHERMEN**

Fishing Equipment	Violate	Variables	N	Minimum	Maximum	Mean	Std. Deviation
<b>1. Trawler</b>	No	Experience	58	4	45	22.11	11.61
		Co-management	58	0	7	2.05	2.06
		Expeva	43	0	11000	2194.19	2924.94
		Income	58	300	5000	1101.75	1053.14
	Yes	Experience	88	1	58	21.01	12.82
		Co-management	88	0	6	1.18	1.80
		Expeva	66	0	15000	1349.24	2652.12
<b>2. Purse seine</b>	No	Experience	48	1	55	24.63	13.91
		Co-management	48	0	7	2.29	1.60
		Expeva	22	0	20000	2363.64	5379.99
		Income	47	300	10000	1082.98	1454.13
	Yes	Experience	29	2	53	19.34	14.27
		Co-management	29	0	8	2.17	1.89
		Expeva	23	0	20000	1465.64	4141.98
<b>3. Drift net</b>	No	Experience	55	1	41	21.69	11.83
		Co-management	55	0	8	2.25	2.82
		Expeva	41	0	6000	1575.61	1386.32
		Income	55	300	5000	1156.36	929.91
	Yes	Experience	6	4	35	23.33	14.07
		Co-management	6	0	2	.83	.75
		Expeva	2	100	3000	1550.00	2050.61
		Income	6	500	3000	1433.33	1025.02

Note: Expeva = expenditure on evasion activity

We also find that income is positively correlated with experience, size of boat (*SIZE*), and size of engine (*HP*). The correlations are all in the expected direction. However, more experienced and older fishermen have a lower level of education (correlation of -0.49 and -0.46). It is important to note that the correlation between experience (*EXPER*) and age (*AGE*) is very high (i.e. 0.72) and significant. We have expected this result because

older fishermen, obviously, have more experience in the fishing industry. From this information, we will only use *EXPER* in the regression analysis, and leave out *AGE*, to avoid the multicollinearity problem.

**TABLE 3: CORRELATION MATRIX BETWEEN VARIABLES, PENINSULAR MALAYSIA**

	EXPER.	AGE	EDUC.	SIZE	HP	CO-M	INC.
EXPER.	1.000	0.721**	-0.487**	0.008	0.000	0.232**	0.134*
AGE		1.000	-0.461**	-0.119*	-0.105	0.174*	0.058
EDUC.			1.000	0.318*	0.40	-0.115	0.027
SIZE				1.000	0.326**	0.151*	0.337**
HP					1.000	-0.21	0.145*
CO-M						1.000	-0.019
INC.							1.000

\*\* Correlation is significant at the 0.01 level (2-tailed);

\* Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation matrix also indicates that experience (*EXPER*) is positively correlated with co-management (*CO-M*) activities, while education (*EDUC*) is negatively correlated with experience (*EXPER*). A question that arises is whether the fishermen are able to manage fisheries resource through co-management because of their lack of knowledge and know-how. However, the relevant knowledge about fishery is not the same as formal education. It is well known that knowledge about fishery that has been accumulated by the fishermen via cultural transmission is relevant for resource management. Thus we can say that level of education does not determine degree of involvement with a co-management program, but experience does influence level of involvement. The findings appear to be consistent with the views of Pomeroy *et al.* (2001) that knowledge about cultural background and experience of the fishermen are two important factors for a success of co-management system. If the Department of Fisheries wants to encourage fishermen to get involved with co-management activities, they should use a simple but practical extension program to make sure all the fishermen understand and are willing to participate in the program.

#### **Involvement in the regulatory system**

*Research Question 3:* Is there any difference in the degree of involvement in the design and operation of the fishery regulation among different groups of fishermen?

The surveyed fishermen were also asked to state their opinions regarding their involvement with the regulatory system. We expect that fishermen who are actively involved with the regulatory process are more likely to comply with zoning regulations. The findings are reported in Table 4. Sixty-two percent of drift nets as well as purse seines fishermen reported that they were involved (very involved, quite involved and involved a little) with the regulation system, compared to 46 percent of trawler fishermen. However, 11 percent of the trawler fishermen reported that they were not involved with the regulatory system, compared to only two percent of the drift nets fishermen. This result suggests that drift nets and purse seines fishermen are more involved in the regulation system, compared to trawler fishermen. That is, there is a significant difference in degree of involvement with the regulation system among fishermen using trawl nets, purse seine nets, or drift nets. A higher percentage of involvement with regulation system for drift nets fishermen can perhaps be explained by the popular opinion that this group of sustainability of the fishery resources. Discussions with the Department of Fisheries confirmed that most drift-nets fishermen were quite involved with their (DOF) activities compared to trawler and purse seine fishermen.

**TABLE 4: INVOLVEMENT IN THE REGULATORY SYSTEM**

Response	Trawl nets	Purse seines	Drift Nets	Total
Very involved?	2 (1.6%)	2 (2.6%)	3 (6.4%)	7 (2.8%)
Quite involved?	31 (25.2%)	12 (15.8%)	15 (31.9%)	58 (23.6%)
Involve a little?	24 (19.5%)	21 (27.6%)	11 (23.4%)	56 (22.8%)
Not involved?	52 (42.3%)	34 (44.7%)	17 (36.2%)	103 (41.9%)
Actively ignored?	14 (11.4%)	7 (9.2%)	1 (2.1%)	22 (8.9%)
<b>Total</b>	<b>123</b> (100.0%)	<b>76</b> (100.0%)	<b>47</b> (100.0%)	<b>246</b> (100.0%)
Response	Trawl nets	Purse seines	Drift Nets	Total
Involved	57 (46.3%)	35 (46.1%)	29 (61.7%)	121 (49.2%)
Not-Involved	66 (53.7%)	41 (53.9%)	18 (38.3%)	125 (50.8%)
<b>Total</b>	<b>122</b> (100.0%)	<b>76</b> (100.0%)	<b>58</b> (100.0%)	<b>246</b> (100.0%)

Note: Q 48: How big a say do you think you personally have in the design and operation of the fishery regulation?

Are you (tick only one answer)?

#### **Compliance behavior of peers**

*Research Question 4:* Is there any difference in perception towards compliance behavior of other fishermen among different groups of fishermen?

To assess the respondents' perception towards compliance behavior of other fishermen in their fishing areas, they were asked to report other fishermen's behavior toward zoning regulations. As shown in Table 5, 62 percent of trawler fishermen reported that other fishermen violated the zoning regulation; compared to only 38 percent of drift net fishermen, and 37 percent of fish purse seines reported their peers did not comply with the regulations. In other words, a majority of trawler fishermen reported that other fishermen usually violated the regulations. This finding shows that majority of trawlers had the perception that violation of the zoning regulations was a normal activity in the fishery.

**TABLE 5: COMPLIANCE BEHAVIOR OF PEERS**

Response	Trawl nets	Purse seines	Drift Nets	Total
All comply with the zoning regulations most of the time	10 (7.0%)	2 (2.6%)	16 (27.6%)	28 (10.1%)
Most comply with the zoning regulations most of the time	44 (31.0%)	46 (60.5%)	20 (34.5%)	110 (39.9%)
A large minority regularly violates the zoning regulations	53 (37.3%)	21 (27.6%)	4 (6.9%)	78 (28.3%)
Many regularly violate the zoning regulations	16 (11.3%)	5 (6.6%)	15 (25.9%)	36 (13.0%)
Most regularly violate the zoning regulations	19 (13.4%)	2 (2.6%)	3 (5.2%)	24 (8.7%)
Total	142 (100.0%)	76 (100.0%)	58 (100.0%)	276 (100.0%)
Response	Trawl nets	Purse seines	Drift Nets	Total
Not-violate	54 (38.0%)	48 (63.2%)	36 (62.1%)	138 (50.0%)
Violate	88 (62.0%)	28 (36.8%)	22 (37.9%)	138 (50.0%)
Total	142 (100.0%)	76 (100.0%)	58 (100.0%)	276 (100.0%)

Note: Q41: Considering the skippers of other vessels in your areas, would you say that (tick only one answer)?

**Estimation Results**

The individual's supply of violations shown in equation [7] (page 93) is specified as

$$V_i = f(Y_i, p_i, F_i, CO-M_i, \mathbf{M}_i, \mathbf{L}_i, \mathbf{S}_i, \mathbf{X}_i).$$

Where  $V_i$  is the self reported violation rate,  $p_i$  is the perceived probability of detection,  $F_i$  is the expected size of the penalty if caught ( $F_i$ ), and CO- $M_i$  is the level of involvement with co-management activities.  $\mathbf{M}_i$ ,  $\mathbf{L}_i$ , and  $\mathbf{S}_i$  are vectors of variables measuring moral obligation to comply, perceptions of regulatory legitimacy, and social influence. While  $\mathbf{X}_i$  is a vector of variables to describe the characteristics of the fishermen and his vessel.

As suggested by Ehrlich (1973), Kuperan & Sutinen (1998) and Hatcher, Jaffry, Thebaud & Bennet (2000), there is the possibility of bias arising from an endogenous relationship between  $V_i$  and  $p_i$ . In order to overcome any simultaneity bias arising from an endogeneity between the left- and right-hand sides of the function, this study will estimate a two simultaneous equation system (following Kuperan & Sutinen 1998). A subjective probability of detection function was estimated as

$$p_i = f(CONV_i, \mathbf{X}_i),$$

where  $CONV_i$  is experience of conviction,  $\mathbf{X}_i$  is a vector of variables to describe the characteristics of the fishermen and his such as experience, size of the boat, and horsepower ( $EXPER_i$ ,  $SIZE_i$  and  $HP_i$ ), fishermen's expenditure on evasion activities ( $EXPEVA_i$ ) and fishing areas ( $AREA_i$ ).

### **Hypothesis 1: Use of the Logit Estimation on Probability of Detection**

*Research Question 5:* To what extent will the six independent variables of the experience of being convicted, experience in the fishery activity, size of the boat, horse-power of the boat, expenditure on evasion activities, and fishing areas explain the variance in the perception of probability of detection by an individual fisherman?

H1<sub>A</sub>: The six independent variables (the experience of being convicted, experience in the fishery activity, size of the boat, horse-power of the boat, expenditure on evasion activities, and fishing areas) will significantly explain the variance in the perception of probability of detection by an individual fisherman.

The results of the logit analysis of the estimated probability of detection are summarized in Table 6. To evaluate the goodness of fit, the predictive ability of the model is calculated. It is found the percentage correctly predicted is 77.4%. Thus, it is concluded that the model estimated has satisfactory predictive ability. The Pseudo R<sup>2</sup> (i.e., 0.29) is quite reasonable and the computed value of the Wald test statistics (i.e., 49.21) is much larger than the critical value of the chi-square statistics with 13 degrees of freedom. The null hypothesis that the non-intercept coefficients are jointly zero is rejected at the 1 percent level. This means that the empirical logit model is highly significant in explaining the perception on probability of detection by fishermen.

From 284 observations, only 186 observations were used in this regression because of the problem of missing observations (98 observation). This represents an attrition rate of 34.5%. Of the 186 usable observations, 98 were violators (52.69%) and 88 non-violators (47.31%).

From Table 6 we can see that the experience of conviction (*CONV*) is found to have a significant negative impact on the probability of detection. The results suggest that those who had experience in violating the regulation and got caught (self-reported), *ceteris paribus*, perceived themselves as having a lower probability of detection. Looking at the p-values we can say that the coefficient is significantly different from zero at the 5% level. It is postulated that the history of fisherman 'i' with enforcement officials can influence perception towards probability of detection. In terms of the discrete change, those who have experienced conviction, have a 27.6% lower probability of detection. The significant and negative sign on the experience of conviction (*CONV*) towards probability of detection (*p*) follows the theory as has been mentioned in compliance literature.

Fisherman's experience (*EXPER*) does affect perception of probability of detection. The coefficient of *EXPER* is negative, and significant at the 10% level. That is, more experienced fishermen, *ceteris paribus*, perceive a lower probability of detection compared to their less experienced counterparts. Since experienced fishermen are likely to be older, the result is consistent with the contention that older fishermen have more knowledge about how to evade enforcement. Besides, we also find that the expenditure on evasion activity (*EXPEVA*) variable is significant in explaining the probability of detection model at the 5% level. In fact, it is found that more expenditure on evasion activity (other things equal) will reduce the probability of detection. The coefficient of *HP* in Table 6, even though negative, is not significant. Thus, perception of the probability of detection is not different between a fisherman using a faster boat and their slower boat counterparts.

**TABLE 6: LOGIT ESTIMATION OF THE PERCEIVED PROBABILITY OF DETECTION**

Variables	Expected Sign	Estimated Coefficients	Marginal Effect/ Discrete change	P-value
The experience of conviction ( <i>CONV</i> )	+	-1.1345	-0.2755	0.021**
Experience in fishery sector ( <i>EXPER</i> )	-	-0.0312	-0.0078	0.063*
The weight of boat ( <i>SIZE</i> )	-	0.0007	0.0002	0.952
The power of the vessel ( <i>HP</i> )	-	-0.0003	-0.0001	0.323
Expenditure on evasion activity ( <i>EXPEVA</i> )	-	-0.0003	-0.0001	0.007**
Fishing areas - Kedah Utara ( <i>Da_1</i> )	+/-	-2.0736	-0.4464	0.009**
Fishing areas - Kedah Selatan ( <i>Da_2</i> )	+/-	-2.1545	-0.4678	0.000***
Fishing areas - Krian ( <i>Da_4</i> )	+/-	-2.6812	-0.4764	0.023**
Fishing areas - Selangor Tengah ( <i>Da_5</i> )	+/-	0.7696	0.1813	0.418
Fishing areas - Mersing ( <i>Da_7</i> )	+/-	-0.1915	-0.0478	0.855
Fishing areas - Kuantan ( <i>Da_8</i> )	+/-	-0.1120	-0.028	0.910
Fishing areas – K. Terengganu ( <i>Da_9</i> )	+/-	-1.1629	-0.2724	0.284
Fishing areas - Bachok ( <i>Da_11</i> )	+/-	-3.0300	-0.5222	0.003**
Intercept ( <i>_cons</i> )		2.9520		0.000

Notes:

1. For the dummy variable of Fishing area (*Da\_*), the comparison group is Perlis.
2. For the continuous variables (*EXPER*, *SIZE*, *HP*, *EXPEVA*), the value shown is marginal effect. The marginal effect is evaluated by holding all the other variables at their mean values respectively. For the dummy variables, the value shown is the discrete change from zero to one. The discrete change is evaluated by holding all the other variables at their mean values respectively.
3. Log likelihood = -91.48; Wald Chi-square (D.F.) = 49.21 (13); Pseudo's  $R^2 = 0.29$ ; and Percentage of Correct Predictions = 77%.
4. \*\*\*, \*\*, \* Indicate that the variable is significant at the 1%, 5% and 10% level respectively

Lastly, statistically significant parameter estimates show that *AREA* is significant in influencing the perceived probability of detection. Compared to Perlis, it is found that four areas, namely the Kedah Utara, Kedah Selatan, Krian and Bachok areas have a lower probability of detection than Perlis. The significant effect of the variable *AREA* (4 dummy variables) is indicative of the fact that different fishing areas do affect the perception of probability of detection. The significant effect of area may be due to the fact that the monitoring and enforcement strategies vary across fishing areas. Some fishing areas have more enforcement officials per fisherman compared to other fishing areas, where this would imply a greater probability of being caught violating the zoning regulations.

**Hypothesis 2: Use of the Logit Estimation on Probability of Violation.**

*Research Question 6:* To what extent do the economic factors (Probability of Detection, Penalty and Illegal Gains), demographic factors (experience, family size, income, size of the boat, the power of the vessel, ownership of the vessel, involvement with the designing and operation of the fishery regulations, perception on penalty severity, type of fisherman, and fishing areas), co-management index, and non-economic factors (legitimate, moral and social influence) explain the variance in the probability of individual fisherman violating a fishery regulation?

H2<sub>A</sub>: The four independent variables, namely, the economic factors, demographic factors, non-economic factors (normative factors) and co-management index will significantly explain the variance in the probability of violation by an individual fisherman.

Table 7 presents the logit estimation of probability of violation. To evaluate the goodness of fit, the predictive ability of the model is calculated. It is found that the percentage correctly predicted is 82.9%. Thus, it is concluded that the model estimated has satisfactory predictive ability. The Pseudo R<sup>2</sup> (i.e., 0.44) is reasonable and the computed value of the Wald test statistics (i.e., 87.74) is much larger than the critical value of the chi-squared statistics with 33 degrees of freedom at the 1 percent level. This means that the empirical model is significant in explaining the probability of violation by fishermen.

From 284 observations, only 146 observations could be used in this regression because of the problem of missing observations (138 observations). This represents an attrition rate of 48.6%, which is rather high. Of the 146 usable observations, 76 were violators (47.95%) and 70 non-violators (52.05%).

From Table 7, at the 5% significant level, the estimated probability of violation (*VIOLATE*) is found to be negatively related to perceived probability of detection (*DETECT*), co-management index (*CO-M*). *VIOLATE* is positively related with the power of the vessel (*HP*), illegal gain (*IG*), type of fishermen (*DTYPE1*) and self-regulation (*REG*).

The finding that the probability of violation *VIOLATE* is negatively related to the probability of detection *DETECT* is expected – it follows from the theoretical predictions made earlier (in addition, the estimate is significant at the 5 percent level). A negative sign implies that the higher the perceived probability of detection, the lower the probability of a violation.

The co-management index *CO-M* is found to have an effect on the probability of violation. We have expected that the higher the co-management index, the lower probability of violation. The inverse relationship between probability of violation and the co-management variable *CO-M* suggests that fishermen who are more involved in the design and implementation of the management system are less likely to violate zoning regulations. There appears to be a positive relationship between the horsepower of fishermen's engine (*HP*) and probability of violation. Fishermen with more powerful engines are more likely to violate regulations because of the potential for them to get away very quickly.

Illegal gain (*IG*) is an influential factor in the violation models, as implied by the positive coefficient of *IG*. As expected from the theory of deterrence, the size of illegal gains does influence fishermen's tendencies to violate the regulations – the bigger the gain the higher is probability of violation.

Compared to those who use "purse seine nets and others", fishermen who use "trawler" (*DTYPE 1*) are found to have a higher probability of violation. This positive relationship is significant at the 5% level.

Self-regulation (*REG*) is found to have an unexpected positive relationship with probability of violation. The positive sign for the *REG* variable implies that a fisherman who says there is some form of agreement among fishermen in the fishing areas is found to have a higher probability of violation. This may appear puzzling but it could be because the fishermen know about the agreements but do not care about them, and still violate the regulation.

**TABLE 7: LOGIT ESTIMATION OF THE PROBABILITY OF VIOLATION**

Variables	Expected Sign	Estimated Coefficients	t-statistic
MORAL	-	-0.066	-0.477
LEGITIMATE	-	-0.002	-0.012
SOCIAL	-	-0.029	-0.184
CO-M	-	-0.634	-2.298**
PDETECT	-	-2.333	-2.771**
EXPER	-	0.001	0.735
HP	+	0.009	0.05**
EXPEVA	+	-0.001	-1.056
IG	+	0.004	2.004**
INC	+	0.004	1.085
DTYPE 1	+/-	3.865	3.074**
DTYPE 2	+/-	1.935	1.38
REG	-	3.107	2.013**
PENALTY	-	-0.127	-0.183
OWN	-	-1.185	-1.397
CONSTANT	+	0.186	0.057

Notes:

1. Log likelihood = -56.35; Wald Chi-square (D.F.) = 87.74; Pseudo's  $R^2$  = 0.44; and Percentage of Correct Predictions = 83%.
2. \*\*\*, \*\*, \* Indicate that the variable is significant at the 1%, 5% and 10% level respectively.
3. CMDA is interaction between co-management and fishing areas

## Discussion and Conclusions

The purpose of this research is to examine the determinants of fishermen's behavior with a focus on the impact of traditional monitoring and enforcement practices, and co-management strategies. Our results provide some insights for public policy making. The basic finding that probability of detection and involvement with co-management activity are negatively related with violation decisions implies that fishery policymakers can do a number of things for effective strategy to improve regulatory compliance in fisheries.

Firstly, a higher probability of detection and penalty from enforcement activities will discourage people from committing illegal activities. Improving the enforcement process and its intensity can do this. As noted above, in almost any group of individuals subject to regulation there is a core subgroup of chronic violators motivated by high return (illegal gains) of their actions. Enforcement institutions are very well established in Malaysia, so what is needed is to implement enforcement more effectively. However, this policy, which depends on central management, is not very economical because of the high costs of monitoring and enforcement. For example, the number of staff and patrol boats for law enforcement is limited compared with the coastal length of 1,640 km and the huge number

of fishing vessels (i.e. 18,846 fishing vessels in year 2001) that operate various types of fishing gears. Besides that, the construction and operation costs of patrol boats are quite expensive. It is reported that the enforcement institutions such as Department of Fisheries allocates quite a big budget for monitoring activities, yet it is still inadequate. When the capacity of enforcement resources is limited many violators will escape detection. The prospect of a hefty fine clearly provides an incentive to engage in such evading activities. As the regression of probability of detection model has shown, as expenditure on evading activities increases, the fisherman's perception of the probability of detections decreases. The findings show that even through improving probability of detection and increasing penalty severity to the violators can influence compliance behavior, factors such as budget constraint and spending on evading activities can make this strategy to be limited in improving regulatory compliance. However, since improving probability of detection and increasing penalty severity to the violators can influence compliance behavior, policy makers still should use this technique in addition to another alternative technique such as co-management programs.

Secondly, the significance of the amount of illegal gain (*IG*), in the decision to violate, poses some serious problems to policymakers. A large fine with a small probability of being detected may result in the optimal fine being lower than the offender's illegal gain. So, there is more incentive for fishermen to violate the regulations to get the benefits from the illegal activity. This action follows the theory of compliance from economic perspectives. It is interesting to note that in a somewhat different model, Kuperan & Sutinen (1998) obtained results of a similar nature. These authors developed a violation model with the difference in income potential between fishing inshore and offshore as one of their independent variables. They found, inter alia, that if enforcement becomes more successful at keeping trawlers out of inshore areas, the difference in the catch per unit effort between the two zones will become more pronounced, increasing the incentive for fishermen to violate. From the perspective of policy design, a given target level of compliance can be achieved by increasing the magnitude of the fine to these violators.

Thirdly, we also found that trawler fishermen are more likely to violate zoning regulations compared to other types of fishermen. Thus if the regulator's objective is to monitor fishermen's activities where it is more likely to observe non-compliance, then, in order to make the most of its limited resources, enforcement activities should concentrate more on monitoring the trawler fishermen. The argument is a simple one. When we know the groups that frequently violate the regulations, the least costly way to achieve a given expected compliance is to use enforcement resources on this group of fishermen. Department of Fisheries (DOF) can control the number of fishermen using trawl nets as their fishing equipment. No more licenses should be issued to the new fishing vessels that want to use trawl nets. Only the fishermen who have this type of fishing equipment licenses can apply for an annual extension of their fishing licenses. Even DOF can set a policy that the fishing licenses are non-transferable to other operators. When fishermen die, the normal practice is that the licenses are transferable to their children. We suggest that DOF should make a regulation that fishermen's children have to change their fishing equipment from trawl nets to drift nets or purse seine nets. Hopefully this policy can control the number of fishermen using trawl nets equipment.

Lastly, we found that fishermen who were more involved in the co-management activity were more likely to comply with zoning regulations. This study shows that non-monetary factors such as co-management approach can improve compliance decision. Instead of depending on monitoring and enforcement, application of co-management strategies in the fishery industry can be seen as a complement to the normal practice, which depends on deterrence strategies. The significance of the co-management variable in the decision to violate posits some good new ideas for policymakers. Application of co-management needs co-operative participation among the fishermen as resource users, stakeholders, such as the tourism industry, non-government organizations, academicians, boat owners, fish traders and the government. The government makes regulations based on scientific information plus local knowledge of the status of the resources, while the users, recognizing the long term benefits to them of good management, follow and enforce better management practices.

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SECTION 11  
PRODUCT DEVELOPMENT AND MARKETING TECHNIQUES

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# Symbolic Interaction and Consumer Products - Judgments Influenced by Mass Media -

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## Abstract

According to Mead's (1934) symbolic interaction theory, social roles are learned through interaction and experiences in everyday life. Over time, these rules of behavior become internalized and serve to structure one's actions accordingly. Ultimately, these rules provide us with a powerful means of controlling our actions, and in time, they define our identity. Transforming the socialization process is one's conscious interpretation of stimuli through the use of symbols, which acquire their meaning beginning in childhood. Furthermore, society's perceptual processes can be shaped by the symbols we learn, and we as a society see only what our culture has determined is "worth" seeing. The meaning of symbols can be learned from a variety of social influences, one of which may be mediated messages and advertising. This paper attempts to establish a link between media exposure and one's perception of social reality regarding character judgements made of unknown others based on the target's product or brand usage. Using magazine advertisements for fictitious products, the experiment herein seeks to establish two fundamental goals: 1) to determine if perceptions can be manipulated via association with companion symbolic elements; and 2) to detect whether television exposure is a moderating factor. Respondents were asked their perceptions of both product quality and of product users.

## Introduction

We as humans possess the ability to communicate using symbols. This is done through the use of words. Other methods, such as icons denoting a restroom, communicate symbolically. All these examples illustrate a common denominator - society has reached a level of shared agreements between the symbols and the referent objects or ideas they represent. Factors that influence symbolic meaning are largely social in nature. It is a combination of social agents that "negotiate" meaning of what symbols represent.

Another agent of social influence is one's exposure to mass media. Many argue society and media influence each other in a dialectic relationship. Certainly media exposure is part of a social learning process of symbolic meaning regarding products and brands that we as consumers purchase.

Another form of symbolic communication is symbolic consumption- the use of brands or products as "tools" to communicate the construction of the "self". Interesting is the role that media plays in such "symbols for sale", and the relation to one's perception of social reality by their usage. Advertising can serve to create or maintain a brand's "personality" or "meaning", but this meaning is also negotiated through the interaction of one's self and society. Because many marketing efforts are aimed at creating a brand's personality in the interest of differentiating it from similar, competing products, it seems apparent that consumers accept in part these fabrications via symbolic consumption to "say" something about one's self. This concept serves to illustrate that society and marketing influence each other.

As receivers of symbolic communications from others, people make judgments of others based on heuristic cues involving brands or products. The research reveals that communication may be intended by the consumer.

## Literature Review

### Symbolic Interaction

George Herbert Mead (1934) provided unique insight for understanding social life in ways different than behaviorist notions that one's learning is influenced by social environment. Contrasting the behaviorist notion that views people and social life as stimulus-response mechanisms, Mead proposed a "socialist" behaviorism concept, inclusive of the social environment in which learning takes place.

Social roles are learned through interaction and experience in everyday life situations. Over time, people internalize the inherent rules in situations and structure their actions accordingly. Once internalized, these roles provide us with a powerful means of controlling our actions, and in time, they define our identity.

Definitions of three terms relevant to symbolic interaction are prudent. Based on Baran and Davis's(1995) summary of these terms, a *sign* is any element in the environment used to represent another element in the environment. Artificial signs only function properly if two or more people agree on their meaning and respond to that sign in a consistent fashion.

*Signals*, within the symbolic interaction context, are artificial signs that produce highly predictable responses (like traffic signals). *Symbols*, conversely, are artificial signs, for which there is less certainty of response and may be more dependent on context. As Faules and Alexander (1978) explain, "Signals are used to regulate normative behavior in a society, and symbols are used to facilitate communicative behavior in a society"(p.36).

Central to the focus of the current research are the meanings that products and brands can communicate to others. While many social agents exist that influence one's perceptions, mass media also play an active role in illustrating their viewers what symbolic meanings are attached to a brand or product class. Television viewers are constantly exposed to possessions that act as symbols to help communicate concepts, which serve to paint a picture more clearly. One perspective is that media also influences and helps shape society's "understanding" of product meanings.

In the case of brand names, however, it is certain that society is not the only influence of brand's meaning or personality. Successful marketing efforts create to their audience specific brand meanings and brand personalities. As a result, it will be shown in this research that consumers may, in turn, use such brand meanings as "tools" to communicate similar meanings in construction of the "self".

In an effort to confirm these main dimensions and their generalizationability, a study was conducted using a different sample of brands and subjects. The results showed that the same number of factors resulted with similar weights as those factors as revealed in the first sample.

In regard to commercial promotion of goods and services, a dialectical relationship exists between advertising and the consumer. While advertising helps create, modify, and transform cultural meanings for the consumer, it also represents shared cultural meanings from the consumer's worldview and invests it into advertised products.

Liagas and Cotte(1999) explore brand meaning and consumer negotiation within a framework consisting of three environments-marketing, individual, and social- using a symbolic interactionists perspective. They claim a brand does more than signal its utilitarian attributes- it can also have particular meaning, making the product personally meaningful for the consumer and intrinsically relevant. Brand meaning offers a mode of communication- an agreed upon way of recognizing the product. In order for brand meaning to apply in social contexts, meaning agreements are necessary regarding three component: physical make up, functional characteristics, and characterization.

### Cultivation, Symbolic Conditioning, Thought Processing and Persuasion

Aspects regarding the effects of mass media on audiences may explain how TV can 'teach' viewers meanings associated with symbolic communication and perceptions of societal beliefs. Cultural analysis, developed by George Gerbner(1976), combines aspects of both macroscopic and microscopic cultural theories. It can be considered macroscopic because it addresses broad questions about the role of media in society, and microscopic because of its relation to and measurability of individual viewers. Simply stated, cultural analysis claims that the more people watch TV, the more they tend to perceive the world as its presented on TV rather than how statistics show it to be in

reality.

Cultivation analysis does not claim people are unable to separate the "real" world from the TV world in a childlike naivete. Rather, that our perceptions of reality are subtly, gradually, and unknowingly skewed towards TV presentations or reality. As Baran and Davis summarize(1995), the central argument is "TV 'cultivates' or creates a world views that, although possibly inaccurate, becomes the reality simply because we, as people, believe it to be the reality and base our judgements about our own, everyday worlds based on that 'reality'"(p.303).

Cultivation analysis research(i.e., Gerbner, 1976; Gerbner and Gross, 1976; Gerber, Gross, Morgan, and Signorielli, 1980; Morgan and Shanahan, 1997; and Gerbner, 1998) makes five fundamental assumptions. The first is that TV is essentially and fundamentally different than other forms of mass media. TV is virtually ubiquitous in home, it does not require literacy, it's free, it combines pictures and sound, and it allows "interaction" beginning with the toddler stage and extends through to the elderly. A second assumption is that the medium is the "central, cultural arm" of Society. And the third assumption further relates to the shared reality concept. " The substance of the consciousness cultivated by TV is not so much specific attitudes and opinions as more basic assumptions about the 'facts' of life and the standards of judgement on which conclusions are based(Gargner and Gross, 1976, p.175. Fourth T.V.'s major cultural function is to stabilize social pattern and to cultivate resistance to change. The fifth assumption of cultivation research is that the observable, measurable, independent contributions of TV to the culture are relatively small.

The method used by cultivation researchers to scientifically demonstrate the concept of TV as a culturally influential medium employs a four-step process. First reoccurring and consistent presentations of images, themes, values, and portrayals. The second step is formulation of questions about the viewers' social realities. Surveying the audience is the third step-posing those questions developed, and other questions concerning TV consumption. The fourth step is to compare the social realities of light and heavy viewers.

Cultivation theorists argue that T.V.'s main contribution is cultivation-a process relating to coherent frameworks or knowledge and to underlying general concepts. This occurs, in part, from "mainstreaming". Closely associated with the concentration of this paper's focus of symbolic consumption, Harmon(2000) conducted cultivation research aimed at connecting TV exposure and one's sense of materialism. He contends that the most consistent and significant message of TV is commercialism and that place to look for the long-term, subtle, and persuasive effects of TV is in materialism among heavy viewers. TV(i.e., symbolic usage and advertising efforts) may teach viewers learning which consumable items serve as signifiers that we in turn feel a need to possess for reasons of image management for the self and to project to others.

## **Hypothesis**

As demonstrated, symbolic interaction reveals insight to the role of marketing efforts affecting the perception of consumable symbols as signifiers of meaning. Combining the concepts of symbolic interaction and elements related to media exposure, persuasion, and advertising involve symbolic consumption that may serve to create or maintain the construction of "self". Also, exposure to media exposure other than advertising(i.e., T.V. programming) implicate broader issues less related to brands, but more so to the consistent, overall message patterns relating to consumerism and materialism in general. Through an understanding of the implications of mass media affecting audience perceptions, one can become more sensitized to the pervasive glamorization of material goods that audiences learn to signify.

The broader implications that media exposure imposes on the topic of symbolic consumption implies a need not to separate branded products as the only opportunity for symbolic communication. Mass media influences outside the world of advertising are apparently among the various social agents that define or maintain our understanding of symbolic referents. Thus communicative ability can also be achieved through the ownership and display of non-branded products, attributable in part by media consumption and the alleged link to heavy viewers' potentially skewed perception of social reality, which may suggest concepts related materialism.

Intuition suggests that interactions exist between symbolic "understanding" of brand names and one's exposure to advertising. Although advertising is as ubiquitous as mass media, audiences are more captive with T.V.

compared to other forms of mass media(Morgan and Shanahan, 1997; Garbner, 1998). T.V. viewers are all too familiar with the concept of watching their favorite programs and having to "pay" the price by enduring the commercials. It would seem that the more one is exposed to T.V. advertising, the more one is likely to become familiar with brands and their associated meanings and personalities, and therefore be more likely to infer associated symbolic meanings of other consumers based on brand name usage. Along these same lines about consumers based on brand name usage due to their lack of advertisement-created "knowledge".

Similarly, with regard to symbolic meanings based on product type-regardless of brand name-it is suspected that T.V. exposure in general may contribute to this social "learning process. Based on consideration of such research that did not involve brands-but product by type-that support symbolic communicative ability, it seems likely that mediated influences beyond marketing efforts(i.e., T.V. programming contents) are at play.

The combined findings of the research reported herein lead to the following four hypotheses that are based on the potential influences of companion brands or products within fabricated advertisements as stimuli.

Two ads used to test these hypotheses will use companion branded products, while another two ads will use companion products as a class. All four hypotheses regard perceptions concerning either the proposed product itself of character judgment of an unknown other target who uses the proposed product.

H1: Proposed products will be perceived more favorably when accompanied by "upscale" companion products compared to "practical" companion products.

H2: Proposed products accompanied by "upscale" companion products will be perceived more favorably by heavy T.V. viewers than light viewers.

H3: Alleged users of proposed products will receive more favorable character judgments when the companion products are "upscale" compared to "practical".

H4: Alleged users of proposed products accompanied by "upscale" companion products will receive more favorable character judgments among heavy viewers than light viewers.

## **Methodology**

This study is a 3 X 3 factorial design seeking to establish a link between T.V. exposure and product/consumer perceptions based on the manipulation of accompanying elements shown in fabricated magazine advertisements for fictitious products. Respondent's T.V. exposure is categorized into three categories(light, medium, and heavy); the stimulus material also has three versions. Each of the ads contain manipulated referent materials in categories of "upscale," "practical," or neither(as a control). Headlines, body copy, product name, and packaging remained the same between all three versions. The accompanying/companion elements manipulated(with each ad) were either brand name products or products as a class. Support for H1 and H3 will reveal the main effects of the ad versions. In other words, support will suggest that the experimental manipulations served as cues that created a symbolic "meaning: or "understanding: for the new product(or its users) via association with the companion branded products or "environments." As support found for H2 and H4 will reveal an interaction between T.V. consumption and the adoption of such symbolic communications, such may illuminate whether such socially understood symbolic "meanings" are influenced directly by T.V. exposure measures.

### **Pretest**

The stimulus material ultimately compares products and brands having opposing positions of perceived "meanings," similar to Baran et. al.'s(1989) shopping list design that compared "upscale" and "practical" products. Unlike the Baran et.al. study, the present experiment uses companion products that may act as indirect cues to influence judgements of advertised product and/or product users. To establish relevant, bipolar category comparisons for the stimulus material in the main study, a pretest was necessary to measure the strength and congruency of such perceptions. The results of the pretest were meant to provide insight as to which brands to group together in the first two advertisements of the main study slated to use branded companion products.

Respondents were surveyed regarding their perceptions on six categories of products-carry-out coffee, cars, watches, magazines, MP3 players, and sunglasses. Each of the six product category evaluations contained four individual color photographs of branded products. All photographs showed only isolated products-that is, they were presented

on white backgrounds completely void of any competing elements within each product categories, subjects were asked to indicate on a photo.

For each of the six product categories, subjects were asked to indicate on a 10-point continuum where each product ranked from "upscale"(1) to "practical"(10). For example, pictures of four watches were shown to respondents who were asked to indicate where they felt each watches ranked on the continuum. After evaluating those four individual items, subjects were asked, "Among these four watches(product type), which do you consider the most practical?"(The underscoring appeared in the response material for emphasis.) The last question for each category asked, "Among the remaining three watches(product type), which one do you consider the most upscale?" This same format was followed for all six product categories.

The brand names for each product category that revealed the greatest agreement for "upscale" and "practical" were used in the second phase of the study. In order to maintain internal validity, the criteria for selecting respondents in the main study met similar selection criteria for the pretest subjects.

### **Main Study**

The stimulus fabricated magazine advertisements for fictitious products were presented to respondents as "proposed magazine ads for new products." Three different versions of advertisements were created for each of the three fictitious products- practical, upscale, and control. Therefore, nine different advertisements were produced in all. Two ads varied the brand names of the companion elements, the other varied product category or type suggested by setting of the companion elements, without the use of brand names. The first two ads-for car wax and a portable clock- varied on the name brand names visible on the incidental companion products. For example, the advertisement created for the "proposed" product Max Wax car wax also included other products, placed incidentally in the ad. In the foreground, a hand held the car wax product that also had a watch on the wrist; in the background was a car with a pair of sunglasses on the car's hood-varied were the type of watch, car, and sunglasses. The control version for the car wax ad had no wristwatch. The car and sunglasses were both substantially blurred in the background to make indistinguishable any brand-identifying resemblance.

Another two sets of ads showed the product pictured with other items, but these ads did not use accompanying brand name products-instead they used product category or types to suggest status. For example, The third ad for silverware shows an environmental table setting. One version suggested "upscale" by showing a dining room in candle light, cloth napkins, a linen tablecloth, fresh flowers, and long stemmed glassware. The opposing "practical" version used the same silverware wet at an eat-in kitchen table set with place napkins, casual drinking glasses, and a small plant as a centerpiece.

## **Questionnaire Instrument**

After viewing each ad, respondents were asked to respond to statements on a 5-point semantic differential scale regarding each ad. For example, " The quality of the car wax seems like it would be..."with a response ranging from "high quality"(1) to "low quality"(5).

In the interest of gathering data from a diversified subject pool, respondents were randomly assigned from convenient samples using a variety of commercial establishments and social environments. No persons who participated the main study had any exposure to the pretest, and the main study sampled similar populations as the pretest.

It was then analyzed using factor analysis to collapse related data into composite variables. Analysis of Variance and Multiple Analysis of Variance procedures were used to determine the influence of the manipulated ad versions, T.V. exposure, and the interaction of the two on how people responded to the stimulus material. Analysis of covariance controlling of age, education, and parent's education was attempted but gave no advantages in improving findings, so the results of those controls are not reported.

## **Results**

### **Pretest Results**

Thirty eight respondents (55% male/ 45% female) participated in the pretest. The ages ranged from 20~58 with a mean age of 29 years.

Results showed that all of the categories had clear separation of judgments regarding practical and upscale; this was determined by the frequencies of either the "overall" practical or "overall" upscale ranking. What follows are the specific brands used in the pretest along with their accompanying frequencies based on overall practical or upscale judgments. The six categories of products in the pretest were carry-out food(that is, coffee), cars, watches, magazines, portable music CD players, and sunglasses.

This first product category for the pretest, carry-out food(coffee), were each represented by a photo of the bag bearing the restaurant's logo. Judged most upscale(31.6%) was Coffee Bean, while Holly's was found most practical(31.6%) by the respondents. The other two carry-out coffees used were Rose Bud, and Java city.

Among the cars used in the pretest, the SM5 was found to be most upscale (47.4%) and the Optima was rated as most practical(47.4%). The other two cars shown were the Sonata and the Magnus. All car photos showed the car from the same angle-including the hood ornament-with no suggestion of people or the environment.

Wristwatches were the third category in tile pretest. The Seiko watch was rated most upscale (42.1%) and the Diesel as most practical (50.0%). The other two watches used were a DKNY and a G-Shock. Among the magazines, Movieweek(about movie) was found to be the most upscale (44.7), and Economy was found as the most Practical (47.4%). The other two magazines were Ceci(about fashion), and Hivi(about music).

The fifth category was music MP3CD players. iRiver was found to be most upscale(38.8%), and an Sony as most practical (39.5%). The last of the six product categories was sunglasses. Escada was found to be most upscale (30.0%), while Dior sunglasses were found to be most practical(50.0%). The other two brands were Bulgari and DKNY. None of the sunglasses had distinctive lettering or logos visible in the photograph. In this case, what appeared to separate brands from each other regarding respondents' judgments appeared to be the distinctive shape/style (or lack thereof) for each model.

Incidentally, in most cases the products perceived as most upscale were more expensive than their practical counterparts. Within any of these product categories, it is possible that other products could have been found to be even more practical or even more upscale. However, the pretest was not meant to be an exhaustive collection of branded product representation; rather, the pretest was meant merely to distinguish a baseline for a bipolar comparisons for manipulation in the main study.

#### **Main Study Results**

One hundred and twenty eight subjects participated in the experiment. The age of the subjects ranged between 18 and 83 years, with a mean age of 34 years, and a mode age of 29 years. Respondents' gender was 40% male, 60% female. Six of the respondents failed to indicate their age of sex.

Results showed television exposure ranged from 0~6 hours per day. Respondents were then divided equally into third and categorized as either light, medium, or heavy television exposure groups. Hourly ranges of each group was light=0-1.3; medium = 1.3~2.3; and above. The dividing into these three groups was mirrored after the model typically used in cultivation analysis.

In the current study, this categorization was necessary for later testing H2 and H4, which each predict an interaction between perceptions and television exposure. Using three groups of television exposure (rather than two) allowed for easier detection of a possible trend between television exposure and the perceptions of the respondents. The "medium" exposure group also served to further separate extreme measures of heavy and light viewers.

It was previously stated that in all, five stimulus subsets were created to determine whether previous ad version influenced subsequent ads. A manipulation check was employed as prerequisite to subsequent analysis of hypotheses that was designed to determine whether practical/upscale order of exposure influenced any bias on subjects perceptions. ANOVA tests revealed that - regardless of whether subjects previously saw an upscale or practical ad - there was no influence in their responses to any of the remaining ads. Cells were therefore collapsed from the five subset packets down to the individual level of each ad and its three versions - practical, upscale, or control.

Factor analyses (principal components, varimax rotation) were performed separately for each advertisement. As expected, the results of the first three questions - product beliefs - indicated measurement of the same concept thereby creating factors regarding beliefs of the product itself. the first ad's product factor was labeled

" wax product status" (eigenvalue= 1.33, total variance=54.6%), with variables loading between .60 and .70. the second ad revealed a similar factor, " clock product status" (eigenvalue = 1.64, total variance=57.9%), with variables loading between .50 and .75. The silverware ad factor was labeled "silverware product status" (eigenvalue=1.35, total variance=56.4%), with variables loading between .58 and .83.

The premise of H1 is whether proposed products are perceived more favorably when accompanied by upscale (versus practical) companion products - thus as main effects, regardless of television exposure. This was tested for each product by running univariate analysis of variance model using ad versions and television exposure as independent variables.

Support for H1 was found by the significant main effect found in the car wax ad across ad versions. In the comparison of homogeneous subsets, Student-Newman-Keuls' showed statistically significant differences) between upscale, practical, and control). This suggests that upscale companion products affected higher product status beliefs than did practical or control companion products. Thus, the manipulation of companion products was shown to have influenced opinions regarding the overall of the car wax product.

Also yielding support H1 was the main effect difference across ad versions seen in the silverware advertisement. In the comparison of homogeneous subsets, Student-Newman-Keuls' test showed statistically significant differences that separated upscale version from the other two versions of control and practical. This lends support that the upscale setting/environment provided more favorable influence on product status beliefs than did the control setting, while the practical setting was perceived as even less favorable. As a reminder, the control version showed both the elegant dining room setting and the eat-in kitchen.

Regarding main effects for the portable clock ads, no significant differences supporting H1 based ad versions were found. To detect whether respondent's age was an influencing factor for product perceptions, separate tests were run that controlled for the effects of age. Controlling for age yielded no further support for any of the four ads.

That an interaction exists between television viewing and the perception of proposed products when accompanied by upscale products (or environments) is the premise of H2, whereby heavy would react more favorably than light viewers. No statistical support was found regarding this hypothesis for any of the four ads. Whether subjects' age was an influencing element affecting such perceptions was also examined. Controlling for age yielded no support for H2 regarding any of the ads.

Hypotheses 3 and 4 involve perceptions of the "typical user" of the proposed products. The last six questions for each ad's response sheet were aimed at probing this concept. As done with product beliefs, user beliefs were also examined to detect whether an factor(s) would emerge. Factor analyses (principal components, varimax rotation) were performed separately for each advertisement. Unlike the factor found of "product status", no acceptable factors emerged for users. In other words, respondents rated typical users differently depending on what type of character judgment was asked, and no "user belief" response indices emerged that tended to measure as a group in statistically similar directions.

The premise of H3 is whether "typical users" of proposed products will be perceived more favorably when accompanied by upscale (versus practical) companion products - regardless of television exposure. This hypothesis will be explored first for each of the three product ads, beginning with the car wax ad, Multivariate tests revealed significant differences were caused within the dependent variables using Wilks' Lambda. Examination of the individual dependent variable contributions to the MANOVA showed that the dependent variables of responsibility and career successfulness showed significant deviations from the null hypothesis. For user's responsibility, the upscale ad differed significantly based on Student-Neumann-Keul's test from both the practical and control ads. This suggests that the upscale ad reflected more favorably on user responsibility than did the control or practical versions. The differences between the practical and control ads were insignificant.

For user's career success regarding the car wax ad, the upscale ad differed significantly from both the practical and control versions, but the practical and control versions did not differ significantly from each other. This suggests that the manipulation in the upscale ad also reflected more favorably on user career success than did the practical or control ads.

According to multivariate analysis, none of the other four user-based dependent variables yielded any support for H3 in the car wax ad. Non-significant (n.s.) dependent variable contribution to the MANOVA revealed

the following outcomes: generosity; sincerity; outgoingness ; and attractiveness. In essence, the combination of branded products-the Mercedes car, Oakley sunglasses, and Seiko watch-positively influenced the perception of user responsibility and successfulness. yet they did not significantly influence any other user attribute judgments.

The portable clock ad showed no support for H3. No significant differences were found between ad version and any of the six user judgment indices based on the results of the MANOVA using Wilks' Lambda).

Support for H3 was found in the silverware ad. Multivariate tests revealed significant differences using Wilks' Lambda regarding the dependent variables of career successfulness and attractiveness. lambda. This concludes the results of all four advertisements regarding H3.

The premise of H4 is whether television exposure affects the perceptions of the product's "typical users" when accompanied by upscale (versus practical) companion products. No significant results were found in support of this hypothesis with any of the three advertisements.

## Conclusion

The main intention of this study was two fold. One was to detect differences in judgements made by respondents based on companion elements seen in the ads, while the second intention was to see if those judgements were influenced by T.V. exposure. The respondent judgements measured were of both the product itself as well as alleged users of product. The use of incidental companion elements in the advertisements was a method to indirectly measured their impact rather than overtly. In natural environments, one's possessions are only a "piece" of the entire "picture", therefore it may be that people make judgements about unknown people or unfamiliar products. Also if the conclusions people reach about passers by is indeed based on such indirect "cues", then to explicitly ask people to make judgements based upon them would interfere with an otherwise subconscious thought process.

The varying conclusions reached about unknown others are likely a byproduct of a variety of influences, including mass media effects(e.g., advertising, product placement in movies and T.V.), social groups, and personal experiences. If so, the same could be concluded about material possessions themselves, which can in some situations serve as incidental cues. Supported in components of the current study is this very concept- that incidental companion elements influenced people's judgements regarding other products and the alleged users of those products.

Limitation that may be inherent in using advertisements for stimulus in this type of research is it may be too indirect. Interference from other competing elements in each ad may distract from the manipulations themselves. If so, it imposes limits to findings to only those ads using more "obvious" cues compared to those subtler.

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# A Voice of Customer Based Logistics Quality Improvement Through Quality Function Deployment Perspective

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## Abstract

Logistics service providers act as a key in connecting and smoothing demand and supply of supply chains; hence, logistics quality has important effect on the performance of supply chain. In recent business environment of bitter competitive, firms must provide customer wanted service according to customer demand to ensure their market share. How could logistics service providers make customer service improvement strategy according to customer demand to ensure that customers can really experience the rise of level of service. This study utilize quality function deployment (QFD) as tool for making customer service improvement strategy. According to the analysis technique of QFD, voices of customers, customer demand, is transferred to quality function of logistics service, then a customer service improvement strategy which customers can experience highest rise of level of service can be selected. The empirical case in this study is logistics service providers in Taiwan. The empirical result indicates that the best customer service improvement strategy for logistics service providers in Taiwan is “improvement of efficiency through information technique”.

## Introduction

Providing service according to customers' demands is the key to consolidate the primary customer for ensuring the market share. Among supply chains, logistics service providers play an important role in connecting supply chains; hence, logistics quality has important effect on the performance of supply chain.

In today's competitive business environment, corporations must formulate strategies of boosting customer service; in this way, customers can really experience the rise of service quality. It becomes an issue that how logistics service providers formulate and improve their strategies of customer service in response to customers' demands, so that their customers could find the increasing quality of service. Regarding the skills of boosting service strategies, lots of firms work hard on practicing some TQM activities for entire company in order to boost service quality and avoid or reduce service mistakes for maintaining good relationship with customers.

However, to promote service quality, most of these TQM activities don't focus on their customers, but improving interior operation. As a result, the strategies of boosting customer service formulated by logistics service providers cannot make the customers sense the increasing service quality. And it can cause the difference between expected service quality and practical service. The QFD is an analytic method for formulating strategies of boosting customer service.

The fundamental concept of QFD is to turn voice of customers into the improvement of their products and service quality, ensuring that customers can sense the rise of their service. Therefore, QFD helps corporations not only balance corporations' abilities and customers demands, but also assist in finding new niche. Meanwhile, the QFD is also the one of the best strategy-making tools for expanding market share and increasing high profits

For that reason, this research will use the QFD as an analytic tool to study the decision-making and service improvement. The purpose of this research is, based on the opinion of experts, to turn the items of quality that customer demand into the items of quality function of logistics service by the QFD principles, in order to support logistics service providers formulating strategies of promoting customer service.

The customer-service strategies obtained from this research can really make customers sense the improvement of service quality and make less difference between expected service quality and transmission of practical service.

The rest sections of this research are arranged as follows: the 2nd part is literature review; the third part is to do the case by using QFD; the fourth part is the conclusion.

## **Literature Review**

### **The Evolution of Quality Management**

The issues of quality management had not been discussed until F. W. Taylor brought up the theory of scientific management in the early twentieth century. During the period of ten decades, the production technique improved consecutively so that the strategy of quality management developed sturdily. After the refinement of one century, the strategy of quality management had achieved the phase of maturity. Look back on the past century, we can divided the development of quality management into three stages approximately, that is, quality test, statistical quality control and total quality management. The following are introductions to the procedure of each stage (Zhang Kuong Tui, 1996).

The stage of quality test began from early twentieth century to early 40's. The method of quality test is through a certain standard of test and separates the products into two categories, which are conformity and nonconformity. Nonconformity are not allow to deliver to next procedure process or send out of the factory, that is a method of quality management which filtering nonconformity by afterward checking.

The stage of SQC began approximately from 1940 to late 1950. Since the straight improvement of production technique, the number of the products rose abruptly so that the method of quality management that tests all products didn't work anymore. In this way, we need introduce the scientific testing method, which is new and efficient. SQC is a method, which combined quality management and statistics. Compared with quality test stage, SQC emphasized on quantitative analysis and showed the evidence by data, which indeed took big strides.

The stage of Total Quality Management began from 1960 to nowadays. The concept of TQM came from the book "Total Quality Management" which published by A.V. Feigenbaum in 1961. A.V. Feigenbaum considered that quality is the sum of development, maintenance and enhancement from all the departments in an enterprise. He stressed that the quality needs economical aspect as well. The working method of TQM adopted the PDCA circle from E. Edwards Deming. That is, Plan (P) → Do (D) → Check (C) → Action (A). This means a working method of consecutive circles.

### **Quality Functional Deployment (QFD)**

#### **The Definition of QFD**

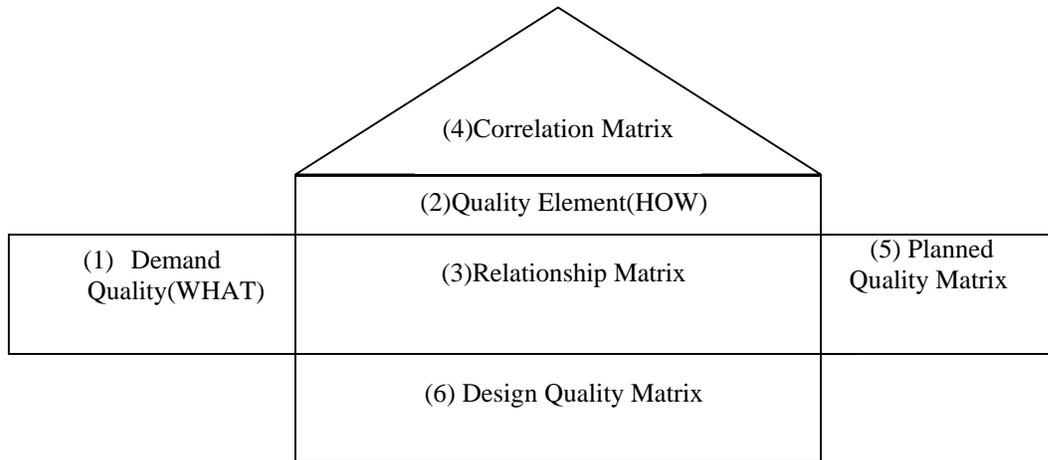
Quality Functional Deployment is a technique, which takes both quality and quantity. Its efficiency is to convert the quality design of products according to the demand of customers. The procedure of the change needs cooperation among some departments such as marketing, products developing, quality design and producing departments, etc. Therefore, QFD helps a lot among departments in the enterprise and enhances the efficiency of communication and information sharing. However, the definition of QFD is hard to define due to the expansive range and detail of its technique. Bicknell and Bicknell (1955:28) shortly defined QFD as a technique, which takes matrix, quantization and other qualitative methods. Using systematical method, QFD combined customers' demands and then made them become the products and parameter, which are definable and measurable. QFD think about not only customers but also the procedure of organization. Sullivan (1986) pointed that QFD is a whole concept. Which means each stage of producing products could convert customers' demands into appropriate technique. Akao (1990) defined that QFD is a method of developing quality design in order to satisfy customers. The concrete content is the main guarantee of the designing goal, which converted through customers' demands. Bossert (1991) considered that QFD offered a structural method to assist the system in enterprises and we could know the demands of customers more by QFD.

Since the foundation of consumptive market was led by customers, the key points to contact customers are to make sure what they need and satisfy them as soon as possible. This is also a critical element to operate a business. Logistics service providers need to keep enhancing the quality of logistics so that they can maintain their competitive ability in such a competitive business environment. QFD develops the quality of design according to customers' satisfactions, and then converts what they need into appropriate quality neediness. Those make customers feel the quality of logistics improvement through executing the improvement of quality function.

Therefore, the quality function neediness of QFD has an effect to make their customers sense the quality. In this way, logistics service providers could draw up efficient strategy of enhancing logistics service by QFD.

#### House of Quality

House of quality is an assistant tool to operate QFD. That is to embody the qualities which are their customers' demands by languages. Then express the connection between qualities and features, and convert the quality into technique. House of quality includes six parts. Figure 1 is American house of quality. The main difference between American and Japanese house of quality is that Japanese house of quality doesn't include Correlation Matrix.



Resources: Sui Zs Huei, TQM, original, Hua Tai, 1999, page 256.

FIG. 1: STRUCTURES OF THE HOUSE OF QUALITY.

1. **WHAT:** By using the method of interview, questionnaires, and the data of marketing survey or focused interview to convert customers' voices into their real demands. Besides, record them in WHAT part.
2. **HOW:** The team could draft solution together according to the demanding quality on the quality list, and converts what customers' need into technique neediness in order to set up the target value of products or procedure features.
3. **Relationship Matrix:** Connecting each "What" and "How", relationship matrix connects customers' demands and solutions into QFD matrix.
4. **Correlation Matrix:** Correlation Matrix shows the relationships among "Hows" and find out the good or bad relationship among each case while setting up solutions.
5. **Planned Quality Matrix:** Which means to decide the importance of quality according to customers' demands, market evaluations and comparing the advantages and disadvantages with other competitors.
6. **Design Quality Matrix:** Which means to consider each alternative's contribution to customers' demands and set goals as standards.

The conditions of operating QFD successful are correct faith, certain targets and developing efficient strategies (Lee Chian Hua, 1996). We could develop a set of strategies which could satisfy the customers' demands and enforce the competitive advantages by taking positive attitudes toward quality, enhancing the satisfaction of customers, using the resources of enterprise efficiently and setting up a goal of promoting market share.

#### The Demand Quality Items and Quality Elements of Logistics Service

There are lots of elements, which affected the service quality regarding logistics service system. In the past, the scholars had adverted the following 20 elements: the ratio of completing orders, the correction of handling orders, the period of handling orders, delivery goods on time, handling of returning goods, stockout ratio, broken ratio, ability of handling emergent orders, handling the complaint of customers, fault of bills or delivery, frequency of delivery, convenience of ordering goods, cleanliness of goods, the freshness and quality of goods, demanding

attitudes by departments, focusing on the satisfaction of customers, satisfaction of logistics service providers, satisfaction, communication and service information, etc. (Zhang Iou Hong, 1998; Chiang Mei Fong, 1996; Bowersox and Copper, 1992; Bowersox and Closs, 1996). Generally speaking, the evaluation of service quality in logistics system differs due to the different types of logistics service providers. Therefore, how to find out the common evaluation rules among different logistics service providers is an important affair of industrial analysis. Thus, this research based on above twenty evaluation rules and discussed with experts and providers to determine the common demanding quality items of Taiwan logistics service providers.

Second, not all of the quality elements help with improving the service quality of these demand quality items. Besides, too much quality elements could confuse evaluator's judgments easily. So that the efficient quality elements must be considered on the basis of demand quality items and devises the connecting quality elements of demand quality items. This research discussed with experts and providers as well after devising the common demand quality items of Taiwan logistics service providers. In accordance with these quality items, we devised some helpful quality elements, which could enhance the demand quality items.

## **Developing Customer Service Improvement Strategy for Logistics Service Providers in Taiwan through QFD**

### **The Information Gathering and Current Situation of the Logistics Industry in Taiwan**

There are more than one hundred providers of the logistics in Taiwan nowadays. The logistics company could divide into three types according to different service items and clients' components. Type 1: The logistics service providers provide services only to the regarding companies which belong to their enterprise, not other providers. Type 2: The logistics companies provide service to both the regarding companies which belong to their enterprise and other companies not belong to. Type 3: The logistics service providers are independent logistics companies, not the subsidiary companies of an enterprise. These kinds of logistics service provider's clients are all outer enterprises.

In the phase of designing QFD questionnaires, this research adopted expert opinion to generalize the common voice of customer and quality elements of logistic service providers in Taiwan through the discussion with experts and providers. The experts dealing with this research includes practical experts and the scholars engaged in logistics service. The content of the questionnaires is to evaluate quality elements, which logistics service corporation provided with by grading. The range is from one point to five points (1~5 pts). And 5 points represent strong satisfaction or emphasis; 4 points represent normal satisfaction or emphasis and so on. The lower scores mean the less satisfied or less emphasized. There were 40 questionnaires delivered and 13 questionnaires retrieved.

### **Analyzing Result**

#### **Demand Quality and Quality Element**

The common quality items required by customers (voice of customer) has been concluded and screened through this research after the scholars and logistics service providers discussed. The following are the findings: 1. Internal management 2. Supply management 3. Orders management 4. Goods transportation 5. Customer service. However, the quality elements (service improving alternatives) concludes 1 Increasing efficiency with IT 2. Customer Relationship Management 3. Distribution of Value-Add Service for Customers 4. Total Quality Management

#### **Weight Calculating of Customer Required Quality Items**

The weight-calculating method of quality items should take most requisite improvement, which is lower satisfied but most valued into consideration. According to logic, full marks (5 points) minus the degree of satisfaction equal the values. For example, if the value of satisfaction is one, then the original weight would be the emphases multiply four; and if the value of satisfaction is two, then the original weight would equal the emphases multiply three. The rest may be deduced by analogy. Therefore, weight of quality items, which is the higher degree of emphasis but the lower degree of satisfaction, will project higher. First, do multiplication of the degree of satisfaction and the degree emphasis. Then gives the standardization (normalization) again. This weight computational method can succinctly also concretely perform each weight distribution of quality items that customer requests. Shu Fen Huang (2003) also uses this procedure in her paper.

#### **Weight Calculating of Quality Elements**

The production of values in Relation Matrix of House of Quality forms with every correlative department's

collaborative discussion through the questionnaires or meetings as a manner. Therefore, the statistics are judged by staff's subjective experiences in the corporation (Pei Juan Tsai, 1999). Demanding for correction and carefulness, we request experts, scholars, and staves of logistics service fill values according to related intensity of demand quality and quality elements separately into relationship matrix( High involvement :5 points; Moderate involvement: 3 points; Low involvement: 1 point) in order to show the relationship between demand quality and quality elements objectively. And the algorithm of weight in items of quality elements is to make the score of the related intensity multiply the standard weight at first, and then sum it up as the second step. The last step is to normalize the result and get the weights of each item of quality elements finally.

#### **Analytic Result of Logistics Service Providers in Taiwan through QFD**

While proceeding, we analyze individually according to the types of logistics service providers. Since logistics service providers are divided into three types so that three different results produced. After the questionnaires which experts filled up had been retrieved, we compute the emphasis of the quality items and the demand quality elements (quality-improved strategy). The computed values of House of Quality, which belongs to three different kinds of logistics service providers, are combined through this research as Table 1. This research uses Japanese House of Quality; therefore, correlative matrix does not exist in Table 1 as we have in Figure 1. The following items in Table 1 are demand quality items: C1 Internal Management C2: Supply Management C3: Order Management C4: Good Transportation C5: Customer Service. However, the quality elements this research presumed are as follows: Q1: Increasing efficiency with IT Q2: Customer Relationship Management Q3: value-add service for customers Q4.Total Quality Management.

In the relationship matrix, the matrix value that three kinds of different logistics service providers relates is the related intensity score obtained between demand quality and the quality elements through the questionnaires.

The part of "planned quality" is the weight of quality items demanded by customers as we have mentioned. In "planned quality" matrix, values in columns of Type 1 are weight of each quality element of logistics service providers in Type1, which is requested by customers. The high value of weight expresses the customers emphasizes this item of demand quality more. In other words, logistics service providers should increase the quality standard more diligently regarding the higher-valued quality items. The same as above, values in columns of Type 2 are weight of each quality element of logistics service providers in Type 2 which is requested by customers and so on.

"Design quality" part is each quality element (strategy of quality), which could be carried out according to the demand quality items by customers. In design quality matrix, the numeric in the rows of Type 1 represents the relative weight, which could be carried out according to the customers' demand quality items of this kind of logistics service providers. The higher value of weight means this quality element could assist businessperson to enhance each standard of quality according to customers' demands more. Therefore, the providers should take this quality element as the strategy of improving quality as a top priority. The numeric in the rows of Type 2 represents the relative weight, which could be carried out according to the customers' demand quality items of Type 2 logistics service providers. The numeric in the rows of Type 3 represents the relative weight, which could be carried out according to the customers' demand quality items of Type 3 logistics service providers as above statement.

First, from the analysis in Table 1, to Type 1 logistics service corporations in Taiwan that only serve the related corporations which belongs to its own bloc and rule out other outside corporations, the most important demand quality items by customers are "Internal Management". The second is "Goods Transportation", the third is "Order Management", the fourth is "Customer Service", the fifth is "Supply Management". Moreover, among the four projects of improving logistics' qualities, the strategy which could make customers feel the enhancing of quality is "Promoting Efficiency with IT", then "Total Quality Management", "Distribution of Value-Add Service for Customers", and last "Customer Relationship Management". Therefore, to Type 1 logistics service corporations; the best strategy of enhancing qualities is "Increasing Efficiency with IT" after considering customers' demands.

TABLE 1: ANALYTIC RESULT

		Quality Element				Planned Quality		
		Q1	Q2	Q3	Q4	Type 1	Type 2	Type 3
Demand Quality	C1	Relationship Matrix				26.38	27.32	22.17
	C2					15.28	15.31	19.31
	C3					19.02	17.81	18.98
	C4					22.49	19.09	20.93
	C5					16.83	20.47	18.61

Type 1	33.30	18.17	21.03	27.50
Type 2	29.14	22.59	22.38	25.89
Type 3	31.53	21.41	19.43	27.63
Design Quality				

Note: Q1: Increasing Efficiency with IT; Q2: CRM; Q3: Distribution of Value-Add Service for Customers; Q4: Total Quality Management; C1: Internal Management; C2: Supply Management; C3: Order Management; C4: Goods Transportation; C5: Customer service

Second, from analysis in Table 1, to Type2 logistics service corporations whose customers are all enterprises not only serve the related corporations which belongs to its own bloc but also serve other outside corporations, the most important item of demand quality is "Internal Management", next is "Goods Transportation", the third is "Customer Service", the fourth is "Order Management", the fifth is "Supply Management". Moreover, among the four projects of improving logistics' qualities, the strategy which could make customers feel the enhancing of quality is "Increasing Efficiency with IT", then "Total Quality Management", then "Customer Relationship Management", and last "Distribution of Value-Add Service for Customers". Therefore, to Type 1 logistics service providers, the best strategy of enhancing qualities is "Increasing Efficiency with IT" after considering customers' demands.

Third, from the analysis in Table 1, to independent Type3 logistics service corporations which belongs to no bloc, the most important item of demand quality is "Internal Management", next is "Goods Transportation", the third is "Supply Management", the fourth is "Order Management", the fifth is "Customer Service"

Moreover, among the four projects of improving logistics' qualities, the strategy, which could make customers feel the enhancing of quality is "Increasing Efficiency with IT", next is "Total Quality Management", the third is "Customer Relationship Management", and the last is "Distribution of Value-Add Service for Customers". Therefore, to Type 3 logistics service corporations; the best strategy of enhancing qualities is "Increasing Efficiency with IT" after considering customers' demands.

## Conclusion

This research helps three kinds of different types logistics service providers find their own boosting strategies of customer service, which make customers, really sense the improvement of service standard by QFD. The analytic result shows that Increasing Efficiency with IT is the best boosting strategy in response to the customers' demands among three results; although the customers request the dissimilar points of quality items regarding three different types of logistics service providers. However, this represents nowadays customers of every type of logistics service providers all expect to use IT effectively and to strengthen the quality of logistics service. This finding can be a reference resource when logistics service providers boosts its competence through increasing its quality.

Formulating boosting strategies of customer service, which make customers actually feel the improvement of service standard, is a key point to maintain market competence. And logistics service providers should map out

all kinds of strategies making customers sense the improvement of service standard.

This research produces strategies, which increase service standard through QFD. QFD is able to integrate customers' evaluation and quality elements emphasized by customers; therefore, using QFD to increase strategies of customer service can present customers' demand effectively, and then let the customers truly feel the improvement of service level.

To competitive logistics service business, using QFD to find effective service-boosting strategies can help it maintain its own competitive ability or even raise its competitive ability.

Similarly, other industries in other nations may also discover effectively service-boosting strategies of this industry or this company through the QFD method to increase its market competence.

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# A New Way of Buyer-Supplier Relationship in Korea

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## Abstract

**When generous supplier development activities in Korea came to a screeching halt after the country was hit by the Asian economic crisis, the big conglomerates had to find new, more economical ways to develop their suppliers, short of cash incentives. Hard choices had to be made. But so far these choices, though made under duress, appear to be sound ones that are helping to forge new patterns of supplier development in Korea. This paper examines how to manage this recovery in terms of buyer-supplier relationship paradigm.**

## Introduction

To compete effectively in the global marketplace, a company must have a network of competent suppliers. A supplier development program is designed to create and maintain such a network-and to improve various supplier capabilities that are necessary for the buying organization to meet its increasing competitive challenges. Generally speaking, supplier development refers to an organization's efforts to create and maintain a network of competent suppliers. From a narrow perspective, it can be defined as identifying new sources of supply where no adequate ones exist. Defined more broadly, however, supplier development also involves a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers' technical, quality, delivery, and cost capabilities and to foster ongoing improvements. The ultimate goal of these programs is to form a mutually beneficial relationship that will help both firms compete more effectively in the marketplace.

Discontinuous changes abound in the modern business world. Survival depends on how readily and how well firms adjust to such changes. To meet the impending economic challenges in the aftermath of the Asian economic crisis, large conglomerates in Korea have accepted the end of generous "supplier nurturing" practices and have turned to no-frills, draconian approaches to supplier development. Before the economic crisis, large Korean conglomerates were nurturing their domestic suppliers by engaging in generous practices to bring them up to world-class levels. The rapid ascension of the Korean conglomerates, which relied largely on learning from foreign suppliers and joint venture partners with advanced technical know-how, had outpaced the growth of (their domestic suppliers, leading to an unbalanced domestic supply chain. Ultimately, they had to reckon with the consequences-bring domestic suppliers up to world-class standards or continue to pay the high price tags of foreign suppliers. Their approach had been to aggressively nurture their domestic suppliers by offering financial and technical aid and extended managerial and technical training. However, this all changed abruptly when the economic crisis descended upon them.

Indeed, the landscape surrounding the domestic supply chain became much more precarious. On top of the same persistent problems, new problems emerged. There was still a large gap in performance capabilities in their domestic suppliers, but the conglomerates now lacked the financial resources they once had at their disposal. Simply put, the new supply chain conditions showed persistent problems in a worsened economic condition. Desperate times called for desperate measures.

What happened to the supplier development practices in Korea in the aftermath of the Asian economic crisis? What were the desperate measures taken by the Korean conglomerates? Did they exhibit fundamentally sound business measures that other Asian neighbors may benefit from, and from which other trading partners in North and South America and Europe may learn? With a discussion of the background of the Asian economic crisis, how it changed the basic principles involved in developing suppliers in Korea, and how the new principles were manifested in new strategies of supplier development, we hope to answer these questions satisfactorily.

## The Impact of the Crisis

No one knows for sure how such an economic catastrophe came to sweep through Asia during the late 1990s. The debates over its causes have ranged from conspiracy theories and exchange rate problems to financial panic on the part of international creditors. Regardless, at least in Korea, a few clearly discernible problems aggravated the effects. Manufacturing companies had relied too heavily on short-term foreign capital to build long-term capacity; when the loans were called in during the crisis, the companies struggled to pay off the debt. Financial institutions had been engaged in excessive speculative lending for many years, and their early reluctance to take strong corrective actions did not help the situation. Worse yet was the fact that weak financial supervision and poor accounting standards made it hard to measure the full extent of the impending crisis. In the end, the Korean conglomerates suffered from a shortage of funds.

Prior to the crisis, the conglomerates in Korea had assumed "an active role in leading, guiding, and convincing suppliers to develop new capabilities and manufacture new parts," thereby helping the suppliers leapfrog to the level of their foreign competitors. Recognizing the need for reliable local suppliers, but knowing that such suppliers' capabilities fell considerably short of world-class, the conglomerates had taken an aggressive posture in working with their suppliers in the areas they needed help on and in delivering solutions to many different types of problems, ranging from cash flow to technical issues. With the advent of the crisis and their own financial troubles, the conglomerates could no longer engage in munificent and all-encompassing supplier nurturing.

In general, after the crisis, large Korean conglomerates understandably became much more cautious and deliberate in how they spent precious resources to develop suppliers, from lending a helping hand to just about any domestic suppliers that needed help, they were suddenly much more selective and judicious in picking partners. One critical step taken under this new orientation was to rationalize the supply base. The conglomerates went through a lengthy process of reevaluating their suppliers and, in the end, reduced the number of them. As a purchasing manager from a leading electronics conglomerate pointed out "Even before the crisis, we knew about the built-in inefficiencies in our supply base. Nobody wanted to tackle this issue because it was a tough job and things seemed to be all right. But after the crisis, the issue all of a sudden became crucial, even urgent. So we tackled supply base rationalization head-on as if our lives depended on it". In a few short years, this manager's company cut the number of its suppliers from 2,300 to 600. The company also discouraged the remaining suppliers from having a high reliance on one specific conglomerate in terms of percentage of total sales. Instead, it encouraged them to venture out beyond the comfortable walls of the conglomerate's keiretsu and diversify their customer base.

This type of approach marked a significant departure from pre-crisis days, when suppliers generally followed the instructions and guidelines from a conglomerate in a vertical relationship in return for support in whatever competitive areas they needed. After the crisis, the conglomerates naturally became more dependent on their remaining few suppliers. Relationships became much more equal and interactive than before. To this end, the conglomerates changed the orientation of their supplier training from providing specific solutions to teaching them the general principles of management. "We couldn't give them fish to eat every time they got hungry," quipped one purchasing manager. "We needed to teach them how to fish." The underlying intent was to help the suppliers help themselves, rather than giving them solutions to their specific problems. Following the same orientation, the conglomerates asked that each supplier pick one competitive focus, quality, cost, delivery, or flexibility, and to become world-class in that area. Most notably, the conglomerates favored cost and technology as the two key foci. The underlying premise was that quality and delivery were supposed to be prerequisites, and the remaining suppliers needed to be able to compete in either cost or technology. Cost had been Korea's competitive key for a number of years, and technology was considered the necessary focus for the next generation of products, given the emergence of China, the Philippines, Malaysia, and other Southeast Asian countries as the lower cost providers. The conglomerates did not want to abandon their area of expertise; meanwhile, they needed to gain a new competitive edge in the changing environment. What they did not want from their suppliers was for them to get "stuck in the middle." where they would have no strong competitive edge in any one area but would achieve mediocre outcomes in several.

## Emerging Strategies after the Crisis

There has been an evolutionary process of the new supplier development strategies stemming primarily from the shortage of funds. In addition to struggling with limited resources and having to discontinue the generous programs developed under a supplier-nurturing paradigm, the conglomerates were receiving much of the blame for the crisis on the way they had managed their finances. Consequently, much of the government funding that had been channeled through the conglomerates for supplier development activities ran dry. In the end, the new situation translated into a more competitive approach to supplier development. When suppliers came to the conglomerates with a development proposal, they were asked to provide more concrete evidence that they needed help. The representatives of the conglomerates would then subject the proposal to a careful evaluation. One purchasing manager from a conglomerate expressed the prevailing sentiment: "We were in a shaky position financially, and suppliers were also having a hard time surviving. We realized that we needed to continue helping the suppliers, but we also needed to approach this very carefully, which means we needed to consider every possible case and evaluate it carefully by setting contingency plans and doing lots of what-if analysis". At the same time, in an effort to reduce the supply base, all suppliers were asked to submit the focus of their competitive advantage. The conglomerates were asking, "Why should we keep you as our supplier?" In this request competitive advantage was defined as "the ability to compete on world-class standards." After a massive push to measure the competitiveness of its suppliers, one conglomerate classified them into five levels of capability: (1) world-class leader, (2) very competitive in the world market, (3) Korean top class, (4) doing OK but not competitive, and (5) problematic, the intent was to treat suppliers differently based on where they ranked on the five levels of capability. Suppliers in the first three categories were assured of continued business; those "doing OK" were placed under close scrutiny; and those in the "problematic" category were removed from the supplier base.

In one case, in January 2003, a conglomerate called a large meeting to which it invited its remaining suppliers, and disclosed its new vision, strategy, and policies for the coming years. Then, in a stunning move, it asked for written feedback from the suppliers about the proposals. Something like this had never happened before the pre-crisis days, the conglomerate always dictated strategy and policy and never asked for any feedback from a supplier. Moreover, it made a formal announcement that it would now invite more bilateral discussions and would regard the suppliers more as partners. Suppliers knew full well that in the old days they were always on the receiving end of specifications and other instructions. Now they were being asked to participate in discussions before specifications were finalized. They were being given the opportunity to voice their opinions about a new product regarding its potential cost, quality, and other performance features. In the end, one could not help but notice the more conciliatory tone of the conglomerates toward their suppliers and a higher level of information sharing than ever before.

Because supplier development could not take place across all performance areas, another conglomerate decided to adopt a policy that called for selective support for its suppliers. The policy centered on helping them either gain high-tech capability or maintain continued excellence in low-cost capability. If the former was deemed as an appropriate competitive advantage for a particular supplier, the conglomerate would typically enter into a joint venture with that supplier. In this way, the development of high-tech capability would entail a much more interactive process than if the conglomerate simply awarded a grant to a supplier with some technical help, as it used to do before the crisis. Moreover, if a supplier decided to compete on low cost, not only would a conglomerate work with it by creating and implementing a very tight target pricing schedule, it would also help the supplier relocate its plants to neighboring Asian countries with lower labor costs.

In all, the conglomerates used to practice little risk analysis before the Asian crisis. Perhaps they had seen little need for it because economic conditions and business prospects were deemed stable and secure. However, after the crisis, at least one conglomerate would engage in careful risk analysis prior to undertaking a development program for a particular supplier. Specifically, risks associated with the potential gap between the plan and the actual implementation were carefully reviewed. With the supplier's inputs, the conglomerate devised a carefully delineated set of contingency actions depending on the size and type of the gap.

Risk analysis included three dimensions: (1) the probability of a misfortune occurring, (2) its probable

duration, and (3) the impact on the overall business. Risks associated with each dimension would be rated on three levels. Based on the results, the managers would then set up plans for how to deal with the risks. To this end, a rather involved, step-by-step monitoring mechanism was implemented to gauge the status of the progress after the supplier development. Purchasing managers were required to meet with the suppliers every month to review progress and file a written report. Moreover, to diffuse the potential risk for the suppliers, the conglomerate now allowed them to seek out contracts from other companies. The landscape of supplier development in Korea was still undergoing a tremendous post-crisis upheaval and transformation.

## Cases of New Supplier Development Practices

As can be seen, the rise of new supplier development practices in Korea did not come from some grand vision initiated by far-sighted conglomerates with ample resources across some long-term time horizon. Instead, it sprang mainly from having to do whatever possible to survive the Asian crisis. One might say it was prompted by the lack of resources and short-term time horizon. Three cases illustrate the significant changes from the days before the crisis. As they show, conglomerates now do less of granting monetary awards, offering immediate solutions, and operating in a top-down fashion, and more of transferring technologies, creating system-wide changes, and forging supplier's partnerships. In these cases, the firms' names have been disguised to ensure anonymity.

### **Daehan Manufacturing**

Daehan produces parts for semiconductor equipment. It grosses about \$40 million in annual sales and employs about 50 people. Ninety percent of its revenue comes from one large conglomerate. Despite the relatively small size, the president of this company has invested heavily in his workers and cutting-edge production facilities. His goal has focused on becoming one of the most productive companies in Korea in the area of semiconductor equipment parts manufacturing.

Meanwhile, the conglomerate that Daehan supplies has continued to struggle with its high reliance on foreign suppliers for semiconductor equipment parts. It had traditionally maintained about a 65/35 ratio between the foreign versus domestic content; however, with worsening financial conditions and exchange rates, it could no longer maintain this ratio. It needed to both increase the domestic content and develop the domestic suppliers to produce the high-tech parts it had been buying from abroad. So it contacted Daehan.

Before the crisis, the modus operandi in this type of situation would have been to grant a monetary award to Daehan, present the performance specs of the needed parts, and offer consultative support services as necessary. There was no money to give away, however. The conglomerate could offer Daehan the only thing it had to give: the technical know-how it had accumulated over the years.

The conglomerate asked Daehan to consider manufacturing low-pressure chemical vapor deposition (LPCVD), 100 percent of which it was buying from a foreign supplier. In return, in lieu of developmental grants, it would make available the ample knowledge base it had in its research center. According to its purchasing manager: "We were desperate. We needed to develop this technology fast and couldn't wait for the supplier to come up with something on its own. At the same time, the company informed me that it had no money to spend on suppliers. So we had to figure out a new way to develop the technology without the financial support". Daehan agreed to this new approach, and five engineers were dispatched from the conglomerate's research center to work with Daehan's engineers and transfer the knowledge they had on manufacturing LPCVD. As new proto-types were developed at Daehan, they were tested concurrently at the conglomerate's production lines. Working together cooperatively in this fashion led to two primary benefits-development lead time was reduced, and once the product was approved it required no additional testing at the conglomerate's production site.

Eventually, the conglomerate acknowledged the HSG (hemispherical grain) that Daehan developed to produce LPCVD as the new standard for all future products and awarded Daehan a multi-year, long-term contract. As a result, Daehan now enjoys a reputation as a world-class manufacturer of LPCVD and is expanding its market to Taiwan and other countries. Its president explains: "Without the help of [the conglomerate], this project would never have been achieved. Since we had no experience in making LPCVD, it is true that we were extremely cautious when we were first approached about this project. However, we were eventually convinced that we should do this, and if we worked together, we would make it happen. Something like this actually never happened before. Usually, we

would make the proposal for a new project first and then they would respond. But this time, they drove us and gave us lots of help”.

### **Samil Engineering**

Samil manufactures labor-intensive, low-tech components for complex, high-tech products, specializing in molding and cleaning plastic parts and the manual kitting of simple electrical components. Because the parts it produces are easily copied and substitutable, Samil must compete in the market with low overheads and low-cost products. Indeed, having been competitive for many years, it has emerged as the cost leader in its market sector. Capitalizing on its experiences and its position as the market leader, Samil has continuously improved its cost structure based on high economy of scale, virtually non-existent learning curve effects, good labor resources, efficient manufacturing methods, and a high return on its facility investments. Consequently, Samil and the conglomerate it supplies have enjoyed a long-term, symbiotic relationship. Samil has received a steady stream of business from the conglomerate, which in return has obtained a good price and reliable supplies from Samil.

This cozy relationship crashed into a wall when the crisis hit. As the general business environment became tighter, the pressure for cutting costs even further began to mount in Samil's already streamlined, cost-efficient manufacturing process. In a nutshell, Samil was threatened with losing what little profit margin it had; it knew full well that it could lose out altogether and become extinct. The messages from the conglomerate were clear: "You have to cut your costs dramatically. Otherwise, you risk losing our business." But there was a bright point in these dire circumstances: The conglomerate was willing to assist and advise Samil, so long as they could work on this task of cost-cutting together.

At first Samil did not quite comprehend the extent of working together. It assumed, as before, that the conglomerate would help in making some type of piecemeal improvement changes. However, when they began working together, it realized the improvements required were much more extensive and systematic. A senior manager at Samil recently recounted what transpired afterwards: "The biggest thing that the conglomerate helped us on was to approach cost management in a strategic way. We are a small company. We used to try to focus on one cost driver at a time, and we focused primarily on production lines. We felt good so long as we were able to cut costs compared to the previous year, and it was line with line conglomerate. But after the crisis, things changed. It seemed that cost reduction from the production was considered a given, and we began to attack all kinds of cost drivers from the whole organization- We began to learn about the total cost concept, early supplier involvement savings, life cycle costing, the economic value-added concept, and so on. Overall, it has been good for us as well as our customer". More specifically, the application of a total cost concept was the focus of the initial big push toward cost cutting. From on-site training at the conglomerate's training center, Samil was asked to come up with the concrete plans to take the cost out systematically from all parts of the organization and move beyond the short-term-based cost reduction management practices that focused mainly on unit cost-cutting, one-dimensional cost analysis, and onetime cost reduction. In the end, Samil realized the big potential for cutting administrative and overhead costs. By analyzing the cost drivers from the whole of its organization, the firm was able to slash 17 percent from its overhead.

Another area that became a serious target of cost reduction after the conglomerate agreed to share information with Samil was inventory. Before the crisis, the conglomerate saw no real need to share information, because it regarded Samil as a small player. It simply placed orders and expected Samil to comply. However, with additional information from the conglomerate on demand and forecasting, Samil now needed to carry fewer inventories, which translated into savings. Of course, both companies knew that information replaces inventory, but it took the crisis to convert this knowledge into practice.

The two companies also began to focus on the practice of target costing. Like many Japanese companies that engage in this practice, the conglomerate as the buyer would bring the target cost to Samil, the supplier. However, realizing that a tight target price would sometimes lead to unnecessary quality problems (such as being forced to cut corners to meet the target price), the conglomerate decided to undertake more bilateral discussions with its supplier and engage Samil in "cooperative target costing" practices. In this context, the conglomerate brings the market target price to the table, while Samil brings the manufacturing cost. They then engage in a rather lengthy discussion to arrive at the mutually agreeable target price.

Yet another major project on which the two companies worked together was the relocation of Samil's plants

to other Asian countries with a lower labor cost. Samil accepted the conglomerate's proposal to move to China and Malaysia, where the conglomerate already had plants. Samil received no developmental grants from the conglomerate for this expansion, and the burden of coming up with additional capital was solely on its shoulders. However, the conglomerate helped Samil with all other aspects of the move, such as identifying a good plant site and interacting with the foreign government. A purchasing manager from the conglomerate summed it up: "I think the suppliers in Korea that used to compete in cost are now caught between a rock and a hard place. They can't compete against companies in China or other Asian countries on cost, and at the same time they can't compete in the global market with any other competitive dimensions such as quality or new product development. The only option they have is to relocate to the countries with inexpensive labor costs and apply the cost management techniques they have acquired over the years". In the end, the conglomerate was willing to help Samil as much as possible, short of doling out monetary subsidies. However, it was also clear that if Samil did not meet expectations, the conglomerate was fully ready to switch over to other low-cost suppliers available in the global marketplace.

#### **Dongjin Company**

Dongjin offers us an example of how a small, technically oriented company can be developed into a more significant player in the business by working with a conglomerate as the buyer. Since Asia's economic crisis, more and more cases have occurred in Korea in which a large conglomerate in high-tech business (personal computers, network equipment, work stations, and the like) gets into a partnership with small but promising companies in order to stay current with emerging, home-grown technologies. Dongjin's story is of a small design house that became a major supplier of data storage components with the help of a conglomerate. This company was originally founded by a few graduates from one of the top-ranked engineering schools in Korea and began designing network data storage and data access appliances. The storage products it designed include stand-alone and networked CD/DVD-ROM servers and arrays as well as memory backup products. Along the way, it obtained several patents and managed to stay current with the latest data storage technology.

Dongjin was then noticed by a conglomerate in the high-tech business. This particular conglomerate had already made a strategic decision that it would be better to get into partnerships with small firms that could develop cutting-edge technologies than to try to develop the technologies internally. It had been searching for a component supplier of CD/DVD-ROM and NAS and found Dongjin. However, because Dongjin was a design house, it had no manufacturing capability. A series of meetings ensued between the two companies, and Dongjin eventually agreed to expand its capability into manufacturing. In return, the conglomerate agreed to provide manufacturing know-how and to acquire a certain amount of Dongjin's stock. Thus, a symbiotic relationship was created - the conglomerate would get the cutting-edge technology from Dongjin, while Dongjin would get the injection of capital it needed to become a major player in the business. The financial fate of the two companies was now tied together.

The engineers and managers from the conglomerate helped Dongjin ramp up its new production lines and then taught it how to manage a manufacturing plant. The areas of learning ranged from quality, labor, and cost issues to general management issues. The lessons truly were learned on all fronts. Dongjin is now growing into a stable, medium-sized manufacturing company with design capability, and is quickly becoming a leader in the area of data-storage component manufacturing.

A purchasing manager from the conglomerate summed up the relationship for us: "Technology advances so fast we can hardly keep up with all that is happening. With the large size, we tend to be a bit slow in action, and we often miss opportunities in new areas of technological development. So we look for small companies with real talent and the capability of developing and keeping up with the latest technologies. We ask them to be our partners and we will work together. If they need a cash injection, we'd be willing to do that but only if it comes with a payback schedule. So far, we have gotten our money's worth from investing in this way-the results have been amazing".

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# A New Statistical Approach on Marketing Survey and Decision Making

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## Abstract

In social science research, many decisions, evaluations, or purpose of evaluation are done by the survey or questionnaire to seek for people's consensus. The commonly used method is asking people to think in binary logic way from a multiple-choice design. However, these processes often ignore the fuzzy, sometimes even ambiguous thinking behavior perceived in human logic and recognition. In this paper we will employ the membership function and statistical fuzzy analysis and will provide the definitions of fuzzy mode, fuzzy median as well as investigation of their related properties. We also give some empirical examples to illustrate the techniques and to analyze fuzzy data. Result shows that fuzzy statistics with soft computing are more realistic and reasonable for the social science research. Finally certain comments are suggested for the further studies.

## Introduction

Many fundamental statistics, such as mean, median and mode etc, are useful measurements in illustrating some characteristics for the sample distribution. These statistical parameters can be quickly computed from a set of data and its basic information has been widely employed in many academic areas. Each statistics has its special application. For example, when we want to investigate people's opinions or consensus on certain public issues, the using of mode or median will be more proper than that of mean.

However, traditional statistics are reflecting the result from a two-valued logic world. To investigate the population, people's opinions or the complexity of a subjective event more accurately, it is suggested that we had better use the fuzzy logic. Especially, when we want to know the public ideology on the environmental pollution, fuzzy statistics provides a powerful research tool. Moreover, since Zadeh (1965) developed fuzzy set theory, its applications are extended to traditional statistical inferences and methods in social sciences, including medical diagnosis or a stock investment system. For example, Lowen (1990), Ruspini (1991), Dubois and Parde (1991), Tseng and Klein (1992) demonstrated the approximate reasoning econometric methods one after another. Wu and Hsu (2002) developed fuzzy time series model to overcome the bias of stock market, which might be explained unreasonable.

There are more and more researches focus on the fuzzy statistical analysis and applications in the social science fields, such as Hwang and Wu (1995) proposed fuzzy statistical testing method to discuss the stationarity of Taiwan short-term money demand function; Guariso, Rizzoli and Werthner (1992) identified the model construction through qualitative simulation; Wu and Sun (1996), Wu and Yang (1997) demonstrated the concepts of fuzzy statistic and applied it to social survey; Wu and Tseng (2002) used fuzzy regression method of coefficient estimation to analyze Taiwan monitoring index of economic. Recently, along with the raising of intelligent knowledge consciousness and soft-computing, many investigators focus on the application of fuzzy set in calculating the human thought or public polls under the uncertain and incomplete condition.

Since mode and median are essential statistics in analyzing the sampling survey. Calvo and Mesiar (2001) proposed the generalized median by discussion aggregation operators closely related to medians and to propose new types of aggregation operators appropriate, both for the cardinal and ordinal types of information. But they didn't give any realistic examples. In this paper we present the definitions of fuzzy mode and fuzzy median, related properties, and proofs. Comprehensive examples about EIA with fuzzy mode and fuzzy median on human thought analysis are well illustrated. We hope via these new techniques the people's thought can be extracted and known in a more precise understanding. Finally, conclusions as well as suggestions are provided.

## The Nature of Fuzzy Samples

Traditional statistics deals with single answer or certain range of the answer through sampling survey, but it has difficulty in reflecting people's incomplete and uncertain thought. In other words, however, these processes often ignore the intriguing and complicated yet sometimes conflicting human logic and feeling. If people can use the membership function to express the degree of their feelings based on their own concept, the result will be closer to their real thought. For instance, when people process a pollution assessment, they classify the distraction into two categories: pollution and non-pollution. This kind of classification is not realistic, since the pollution is a fuzzy concept (degree) and can hardly be justified by the true-false logic. Therefore, to compute the information based on the fuzzy logic should be more reasonable.

### The Degree of Human Feeling

In considering the question related with fuzzy property, we consider the information itself has the uncertainty and fuzzy property. Hence, let's firstly give an easy and precise explanation about fuzzy numbers.

#### Definition: Fuzzy Number

Let  $U$  denote a universal set,  $\{A_i\}_{i=1}^n$  be a subset of discussion factors on  $U$ , and  $\lambda(A_i)$  be a level set of  $A_i$  for  $i=1,2,\dots,n$ . The fuzzy number of a statement or a term  $X$  over  $U$  is defined as:

$$\mu_U(X) = \sum_{i=1}^n \mu_i(X) I_{A_i}(X) \quad (2.1)$$

where  $\{\mu_i(X), 0 \leq \mu_i(X) \leq 1\}_{i=1}^n$  are set of membership functions for corresponding factor in  $\{A_i\}_{i=1}^n$ , and  $I_{A_i}(x) = 1$  if  $x \in A_i$ ;  $I_{A_i}(x) = 0$  if  $x \notin A_i$ . If the domain of the universal set is continuous, then the fuzzy number can be written as :  $\mu_U(X) = \int_{A_i \subseteq A} \mu_i(X) I_{A_i}(X) \circ$

In the research of social science, the sampling survey is always used to evaluate and understand public opinion on certain issues. The traditional survey forces people to choose one answer from the survey, but it ignores the uncertainty of human thinking. For instance, when people need to choose the answer from the survey which lists five choices including "Very satisfactory," "Satisfactory," "Normal," "Unsatisfactory," "Very unsatisfactory," traditional survey become quite exclusive.

The advantages of evaluation with fuzzy number include: (i) Evaluation process becomes robust and consistent by reducing the degree of subjectivity of the evaluator. (ii) Self-potentiality is highlighted by indicating individual distinction. (iii) Provide the evaluators with an encouraging, stimulating, self-reliant guide that emphasizes on individual characteristics. While the drawback is that the calculating process will be a little complex than the conventional one.

**Example 2.1** The use of fuzzy number in the sampling survey about favorite games.

Consider a fuzzy set of favorite games for a person as shown in Table 1. Note that in the extreme cases when a degree is given 1 or 0, that is "like" or "dislike", a standard "yes" and "no" are in complement relationship, as in binary logic. Let  $A_1$  represents the semantics of "favorite game",  $A_2$  is "dislike the game".

TABLE 1: COMPARING FUZZY NUMBER WITH INTEGRAL NUMBER FAVORITE GAMES FOR

Favorite games	$A_1$	$A_2$	$A_1$	$A_3$
Degree of feelings	$\mu_{A_1}(X)$	$\mu_{A_2}(X)$	binary logic	
Baseball	1	0	✓	
Basketball	0.3	0.7		✓
Football	0.8	0.2	✓	
Golf	0.4	0.6		✓
Tennis	0.2	0.8		✓

Based on the analysis of binary logic, we can find that he likes the baseball and football game, dislikes basketball, golf and tennis. On the other hand, the fuzzy statistical result can be represented as:

$$\mu_{A_1}(X) = 1I_{baseball}(X) + 0.3I_{basketball}(X) + 0.8I_{football}(X) + 0.4I_{golf}(X) + 0.2I_{Tennis}(X)$$

$$\mu_{A_2}(X) = 0I_{baseball}(X) + 0.7I_{basketball}(X) + 0.2I_{football}(X) + 0.6I_{golf}(X) + 0.8I_{Tennis}(X)$$

Which means that the person likes the baseball game with 100% of degree, likes the basketball game with 30% of degree and likes the football with 80% of degree? While, he dislikes the basketball game with 70% of degree, dislikes the football game with 20% of degree, dislikes the golf game with 60% of degree, and dislikes the tennis game with 80% of degree.

Therefore, based on the binary (like or dislike) logic, we can only see the superficial feeling about people's favorite game (cf, the right side of Table 1). While via the information of fuzzy response we will see a more detailed data representation.

## How to Compute Sample Mode for Fuzzy Data

Traditional statistics deals single answer or certain range of the answer through sampling survey, and unable to sufficiently reflect the complex thought of an individual. If people can use the membership function to express the degree of their feelings based on their own choices, the answer presented will be closer to real human thinking. Therefore, to collect the information based on the fuzzy mode should be the first step to take. Since a lot of times, the information itself embedded with uncertainty and ambiguity. It is nature for us to propose the fuzzy statistics, such as fuzzy mode and fuzzy median, to fit the modern requirement. In this and next section we demonstrate the definitions for fuzzy mode and fuzzy median generalized from the traditional statistics. The discrete case is simpler than the continuous one's.

### Definition: Fuzzy Mode (Data with Multiple Values)

Let  $U$  be the universal set (a discussion domain),  $L = \{L_1, L_2, \dots, L_k\}$  be a set of  $k$ -linguistic variables on  $U$ , and  $\{FS_i, i = 1, 2, \dots, n\}$  be a sequence of random fuzzy sample on  $U$ . For each sample  $FS_i$ , assign a linguistic variable  $L_j$  a normalized membership  $m_{ij}$  ( $\sum_{j=1}^k m_{ij} = 1$ ), let  $S_j = \sum_{i=1}^n m_{ij}$ ,  $j = 1, 2, \dots, k$ . Then, the maximum value of  $S_j$  (with respect to  $L_j$ ) is called the fuzzy mode (FM) of this sample. That is

$$FM = \{L_j \mid S_j = \max_{1 \leq i \leq k} S_i\}.$$

**Note:** A significant level  $\alpha$  for fuzzy mode can be defined as follows: Let  $U$  be the universe set (a discussion domain),  $L = \{L_1, L_2, \dots, L_k\}$  be a set of  $k$ -linguistic variables on  $U$ , and  $\{FS_i, i = 1, 2, \dots, n\}$  be a sequence of random fuzzy sample on  $U$ . For each sample  $FS_i$ , assign a linguistic variable  $L_j$  a normalized membership

$$m_{ij} (\sum_{j=1}^k m_{ij} = 1), \text{ let } S_j = \sum_{i=1}^n I_{ij}, j = 1, 2, \dots, k, I_{ij} = 1 \text{ if } m_{ij} \geq \alpha, I_{ij} = 0 \text{ if } m_{ij} < \alpha, \alpha \text{ is the significant level.}$$

Then, the maximum value of  $S_j$  (with respect to  $L_j$ ) is called the fuzzy mode (FM) of this sample. That

$$\text{is } FM = \{L_j \mid S_j = \max_{1 \leq i \leq k} S_i\}.$$

If there are more than two sets of  $L_j$  that reach the conditions, we call that the fuzzy sample has multiple common agreement.

### Definition: Fuzzy Mode (Data with Interval Values)

Let  $U$  be the universe set (a discussion domain),  $L = \{L_1, L_2, \dots, L_k\}$  be a set of  $k$ -linguistic variables on  $U$ , and  $\{FS_i = [a_i, b_i], a_i, b_i \in R, i = 1, 2, \dots, n\}$  be a sequence of random fuzzy sample on  $U$ . For each sample  $FS_i$ , if

there is an interval  $[c, d]$ , which is covered by certain samples, we denote these samples as a clustering. Let  $MS$  is the set of clustering which contains the maximum number of samples, then the fuzzy mode  $FM$  is defined as

$$FM = [a, b] = \{\cap [a_i, b_i] \mid [a_i, b_i] \subset MS\}.$$

If  $[a, b]$  does not exist (i.e.  $[a, b]$  is an empty set), we say this fuzzy sample does not have fuzzy mode.

Suppose eight voters are asked to choose a chairman from four candidates. Table 2 is the result from the votes with two different types of voting: traditional response and fuzzy response.

TABLE 2: RESPONSE COMPARISON FOR THE EIGHT VOTERS

Voter \ Candidate	Traditional response				Fuzzy response			
	A	B	C	D	A	B	C	D
1		✓				0.7	0.3	
2	✓				0.5		0.4	0.1
3				✓			0.3	0.7
4			✓		0.4		0.6	
5		✓				0.6	0.4	
6				✓	0.4		0.4	0.6
7		✓				0.8	0.2	
8			✓				0.8	0.2
Total	1	3	2	2	1.3	2.1	3.5	1.6

From left part of Table 2, we can find that three are there people choose B. Hence the mode is B. But if we examine the right part of Table 2 for fuzzy response, we find that B only gets the total memberships 2.1. Which is less than  $C=3.5$ , the fuzzy mode. Hence we can see that the fuzzy response will illustrate people's thought more faithfully.

#### Heuristic Statistical Properties Related to the Fuzzy Mode

Though features of a population can be illustrated by certain statistical parameters, there we still many characteristics, which are left out, such as expectation, medium, and mode. Especially, when we are going to investigate the public opinions in the social science research, traditional parameters don't seem to be enough for application. In order to depict the whole picture more carefully, we implement the fuzzy mode.

Let  $U$  be the universe set,  $L = \{L_1, L_2, \dots, L_k\}$  be a set of  $k$ -linguistic variables on  $U$ , and  $\{FS_i, i = 1, 2, \dots, n\}$  be a sequence of random fuzzy sample on  $U$  (data with discrete fuzzy number). The following properties aim to illustrate the useful applications for the presented definition of fuzzy mode and discuss some valuable properties. We will also compare these two types of modes with the traditional ones.

#### Property 3.1

If the maximum membership  $m_{ij}$  in each  $FS_i$  is larger than the significant level  $\alpha$  and located at  $L_j$ , then the fuzzy mode is consistent with the traditional mode.

#### Property 3.2

If there exists a membership  $m_{ij}$  in each  $FS_i$  with values  $m_{ij} > 0.5$ , then fuzzy mode consists with the traditional mode for any significant level  $\alpha \geq 0.5$ .

#### Property 3.3

If there are samples whose maximum membership falls on two or more of  $L = \{L_1, L_2, \dots, L_k\}$  values. Then we cannot compute the traditional mode without discarding these samples. However, by choosing an appropriate significant level  $\alpha$ , we can compute it by

$$S_j = \sum_{i=1}^n I_{ij} \quad \text{and} \quad FM = \{L_j \mid S_j = \max_{1 \leq i \leq k} S_i\} \text{ to get the fuzzy mode.}$$

#### Property 3.4

We can adjust the values of  $S_j = \sum_{i=1}^n I_{ij}$  and then change the location of fuzzy mode by choosing the different significant level  $\alpha$ .

**Note:** If the significant level  $\alpha$  is chosen to be too large, the value of fuzzy mode will be low. If we lower the significant level  $\alpha$ , the value of fuzzy mode will increase. So, the degree of significant level  $\alpha$  is an important point that will influence the state of fuzzy mode. The prior experience can help us to choose an appropriate significant level  $\alpha$  according to the human thought or social utility.

## How to Compute Sample Median for Fuzzy Data

### Definition: Fuzzy Median (Data with Multiple Values)

Let  $U$  be the universe set (a discussion domain),  $L = \{L_1, L_2, \dots, L_k\}$  be a set of  $k$ -linguistic variables on  $U$ , and  $\{FS_i, i = 1, 2, \dots, n\}$  be a sequence of random fuzzy sample on  $U$ . For each sample  $FS_i$ , let  $m_{ij} (\sum_{j=1}^k m_{ij} = 1)$  be the normalized membership with respect to the linguistic variable  $L_j$ .

Let  $S_j = \sum_{i=1}^n m_{ij}, j = 1, 2, \dots, k$ .

Then, the  $L_j$  corresponding to the median value of  $S_j$  is called the Fmedian of this sample. That is

$$Fmedian = \{L_j : \text{the } j^{\text{th}} \text{ linguistic variable such that } S_j = \text{median } S_i\}_{1 \leq i \leq k}$$

### Definition: Fuzzy Median (Data with Interval Values)

Let  $U$  be the universe set (a discussion domain),  $\{FS_i = [a_i, b_i], a_i, b_i \in R, i = 1, \dots, n\}$  be a sequence of random fuzzy sample on  $U$ . Let  $m_j$  be center of the interval of  $[a_i, b_i]$  and  $L_j$  be the width of  $[a_i, b_i]$ . Then the Fuzzy Median is defined as:

$$Fmedian = [M-r, M+r], \text{ where } M \text{ is the median of } m_j, \text{ and } r = \frac{\text{median } \{L_j\}}{2}$$

Note that for the ordered intervals/terms, the fuzzy median, like the traditional median computing, is the midway of the cumulative memberships, which links the human thought to a more continuous flow rather than as discrete.

Suppose a community wants to set up a penalty for an environmental pollution. Hence they invite 5 experts to judge the penalty. Table 3 shows amount of penalty that the 5 experts propose.

TABLE 3: THE AMOUNT OF ENVIRONMENTAL PENALTY FOR 5 EXPERTS

Five experts	A	B	C	D	E
Environmental penalty (10 thousand)	3~5	6~8	5~8	7~10	13~19

Since the penalty proposed by the expert E is much too high than the others did, if we use the average (mean) to decide the amount of penalty, it will be unfair since the result will be dominated by the E expert. However, using the fuzzy median seems an appropriate idea when the traditional median does not work. The computational process for the fuzzy median is shown below:

1. Find center points for each estimated interval, which are 4, 7, 6.5, 8.5, and 16. Hence the median is 7.
2. Find the width of each estimated interval, which are 2, 2, 3, 4, and 6. Hence the median is 3 (radius = 1.5)
3. According to Definition 3.4, the fuzzy median is [5.5, 8.5]

The following statements aim to illustrate certain heuristic properties applications for the presented

definitions of fuzzy median and discuss some valuable factors.

**Property 4.1** For samples with the continuous type, if the sample comes from a symmetric and unicorn distribution, then the center of its fuzzy mode will be coincided with the center of the median.

**Property 4.2** The fuzzy median is unique, while the fuzzy mode is not.

**Property 4.3** For samples with the continuous type, we can use the significant level  $\alpha$  to control the number of samples which the fuzzy median inherits by itself.

## Miscellaneous Applications

### Evaluate the Pollution Problem (Fuzzy Mode Application: Data with Multiple Values)

In a field study, we ask 12 experts to evaluate the degree of pollution  $P$  ( $0 < P < 1$ ) for a special topic. The Language variables  $L = \{L_1 = \text{OK}, L_2 = \text{Moderate}, L_3 = \text{Unhealthful}, L_4 = \text{Very unhealthful}, L_5 = \text{Hazardous}\}$ . Table 4 and 5 illustrate the results from the 12 experts.

TABLE 4: MEMBERSHIPS FOR THE 12 EXPERTS OF ENVIRONMENTAL PROTECTION

Pollution Experts	o.k	moderate	unhealthful	very unhealthful	hazardous
1	0.5	0.4	0.1		
2		0.4		0.6	
3		0.4	0.6		
4		0.6	0.4		
5	0.4	0.6			
6				0.3	0.7
7		0.4		0.6	
8			0.4	0.6	
9				0.2	0.8
10		0.1	0.3	0.6	
11	0.7	0.3			
12		0.7	0.3		
Total	1.6	3.9	2.1	2.9	1.5

TABLE 5: POLLUTION EVALUATION (TRADITIONAL RESPONSE)

Pollution Expert	o.k	moderate	unhealthful	very unhealthful	hazardous
1	✓				
2				✓	
3		✓			
4			✓		
5		✓			
6					✓
7				✓	
8				✓	
9					✓
10				✓	
11	✓				
12		✓			
Total	2	3	1	4	2

From Table 5, we find that there are four experts choose *very unhealthful*. Hence the mode is *very unhealthful*. But if we examine the Table 4, we can find that the item *very unhealthful* gets the total memberships

2.9, which is much less than the maximum membership  $unhealthful=3.9$  of this survey. Comparing the traditional result at Table 5 with that of Table 4, it is clear that the fuzzy mode enables to be more robust in recording the data. In other word, fuzzy mode can more realistically reflect the common agreement than the traditional mode does.

**7-11 Chain Stores Plan to Introduce Lunch Box Services (Fuzzy Mode Application: Data with Interval Values)**

In order to understand consumers' pattern, the manager decides to take a survey to investigate the price of a lunch box, which will be taken for granted and acceptable by consumers. They randomly select 50 customers reside in Taipei city. The investigator asks them, after they ate the lunch boxes, to fill up the questionnaire which price with a list single value and an interval value, which represents an acceptable range.

TABLE 6: PRICES OF LUNCH BOXES (NT DOLLARS)

<i>Fuzzy answer</i>	35 ~45		40 ~45		49 ~55		49 ~59		55 ~59		59 ~65		45 ~59		
<i>Frequency</i>	5		2		15		10		8		4		6		
<i>Traditional answer</i>	35	45	40	45	49	55	49	55	55	59	59	65	45	55	59
<i>Frequency</i>	3	2	1	1	10	5	6	4	2	8	3	1	2	3	1

From the above result, we could obtain the fuzzy mode is between NT\$49 to \$55 with size 31. While based on the traditional answer, it is easy to find that the mode is NT\$49, which is an accepted price for 16 persons. Note that there are still 14 customers choosing NT\$55 as a reasonable price of a lunch box. Therefore we had better conclude that it is more realistic to say that the reasonable price of a lunch box will be \$49 to \$55.

**The Design for English Lecture Hours in Primary School (fuzzy median application: interval data)**

The design for lecture hours of different subjects in primary school should be carefully discussed by teachers and scholars. Assume a researcher would like to collect the information about rational lecture hours of English for primary school. So, we invite 30 teachers and scholars to set the rational lecture hours so that the result can be applied into nine-grade whole curriculum. The question is, "In your opinion, what will be the optimal English lecture hours per week in primary school?"

We ask people to fill out the two types of surveys, for instance, write range in the fuzzy survey and mark certain lecture hours in the traditional survey. So, every sample will contain both the results from the fuzzy survey and traditional survey. Table 7 shows that, based on the traditional survey, the mode is only 9, which means 9 out of 30 (less than 1/3) people would like 6 English lecture hours per week. However according to the definition of fuzzy mode, Table 7 also shows that up to 19 of 30 (almost 2/3) people would like (*generally agree*) 5~7 lecture hours per week based on the fuzzy survey.

TABLE 7: THE ENGLISH LECTURE PER WEEK FOR PRIMARY SCHOOLS

<i>Fuzzy Hours</i>	3~6		4~7		5~7		6~9		3~8		5~10		7~10	
<i>Number of People</i>	2		5		6		3		5		3		6	
<i>Exact Hours</i>	4	4	5	5	6	6	7	3	5	6	5	8	7	8
<i>Number of People</i>	2	4	1	2	4	2	1	1	1	3	2	1	4	2

**How Many People should be Hired? (Fuzzy Median Application: Interval Data with  $\alpha$ -cut)**

A company wants to establish a new office. So the boss asks for 5 related managers to evaluate the number of newcomers that should be hired. Table 8 shows the 5 managers' evaluation as well as the membership function.

TABLE 8: FIVE MANAGERS' EVALUATION AS WELL AS THE MEMBERSHIP FUNCTIONS.

<i>Manager</i> \ <i>Numbers</i>	1~3	3~6	6~9	9~12	12~15	15~18	18~21	21~24
A	0.4	0.6	0	0	0	0	0	0
B	0	0	0.3	0.7	0	0	0	0
C	0	0	0	0	0.7	0.3	0	0
D	0	0	0	0	0	0.1	0.2	0.7
E	0	0.4	0.6	0	0	0	0	0
Total	0.4	1.0	0.9	0.7	0.7	0.4	0.2	0.7

The significance of Table 9 lies on the fact that there are little overlaps among 5 experts' answers. This is what the  $\alpha$ -cut can jump in and resolve the problem without bias. Table 8 shows the sum memberships via different significant level  $\alpha=0.4$  and  $\alpha=0.7$ . It is clear to find that under  $\alpha=0.4$ , the fuzzy median for the answer "How many people should be hired is 6~9 people". While under  $\alpha=0.7$ , the fuzzy median for the same question is 9~12 people.

TABLE 9: FUZZY MEDIAN FOR THE ORDERED MANAGERS' EVALUATION

<i>Sum</i> \ <i>Numbers</i>	1~3	3~6	6~9	9~12	12~15	15~18	18~21	21~24
Membership	0.4	1	0.9	0.7	0.7	0.4	0.2	0.7
Membership( $\alpha=0.4$ )	0.4	1	0.9	0.7	0.7	0	0	0.7
Membership( $\alpha=0.7$ )	0	1	0.9	0.7	0.7	0	0	0.7

**Penalty Evaluation for a River Pollution (Fuzzy Median Application: Linguistic Data with Weight)**

Suppose a community wants to set up the penalty for a river pollution. They ask 10 experts to estimate the total amount of the penalty. Table 10 is the result of the surveys.

TABLE 10: PENALTY FOR A RIVER POLLUTION

<i>Expert</i> \ <i>Factors</i>	<i>Water</i> $w_1=0.4$	<i>solid waste</i> $w_1=0.25$	<i>Odor</i> $w_1=0.2$	<i>Chemical toxins</i> $w_1=.1$	<i>Noise</i> $w_1=0.05$
1	[10,12]	[15,20]	[12,15]	[22,30]	[8,10]
2	[8,9]	[8,10]	[10,13]	[6,8]	[12,13]
3	[5,7]	[20,25]	[19,20]	[9,11]	[20,22]
4	[12,15]	[20,28]	[11,12]	[20,23]	[15,18]
5	[20,30]	[14,19]	[10,20]	[14,16]	[16,20]
6	[7,9]	[16,21]	[13,15]	[8,9]	[25,30]
7	[8,10]	[10,12]	[22,24]	[10,11]	[31,35]
8	[5,6]	[7,8]	[17,19]	[12,15]	[20,23]
9	[11,12]	[11,14]	[22,28]	[18,20]	[10,12]
10	[11,13]	[22,26]	[14,16]	[10,12]	[16,22]
Fuzzy Median	[9,11]	[14.5, 19.5]	[14,16]	[11,13]	[17,20]

unit=million dollars

The fuzzy median estimation process is as follows:

- (1) Deciding the influence factors about the pollution.
- (2) Applying the fuzzy ordering method to calculate the weights  $\{w_1, w_2, \dots, w_k\}$ .
- (3) Calculating the sample fuzzy median  $FM$  of the penalty for each item.
- (4) Calculating the total penalty via soft computing  $FM^* \{w_1, w_2, \dots, w_k\}$ .

Take the first term quality of water as an example: (1) the center point and the radius  $[m;r]$  are [11;1], [8.5;0.5], [6;1], [13.5;1.5], [25;5], [8,1], [9;1], [5.5;0.5], [11.5;0.5], [12,1]. From Definition 3.4, we can find that the

(10,1) will be the fuzzy median of these 10 data, that is [9,11]. Finally multiply the weight by the fuzzy median, we can get the amount of penalty for a river pollution, which is

$$10 \cdot 0.4 + 17 \cdot 0.25 + 15 \cdot 0.2 + 12 \cdot 0.1 + 18.5 \cdot 0.05 = 13.375.$$

## Conclusions

Fuzzy statistical analysis grows as a new discipline from the necessity to deal with vague samples and imprecise information caused by human thought in certain experimental environments. In this paper we, we made an attempt to link the gap between the binary logic based on multiple choice survey with a more complicated yet precise fuzzy membership function assessment, such as fuzzy mode, fuzzy median, fuzzy weight and  $\alpha$ -cut etc. We carefully revealed how these factors can be properly and easily utilized in various fields to reveal the contradictory characteristics of human concepts. Through these processes, human ideas are no longer presented as discrete but as a natural and continuous flow. There are illustrated examples demonstrated to explain how to find the fuzzy mode and fuzzy median, and how to use the results to help people reaching their decisions.

However, there are still some problems we need to investigate in the future:

1. We can further the research on data simulation so that we can understand features of the fuzzy linguistic, multi-facet assessment, and the balance of the moving consensus. Moreover, the choice of different significant  $\alpha$ -cut will influence the statistical result. An appropriate criterion for selecting significant  $\alpha$ -cut should be investigated in order to reach the best common agreement of human beings.
2. There are other types of membership functions we could explore in the future. For the fuzzy mode of continuous type, we can extend the uniform and triangular types of membership functions to non-symmetric or multiple peaks types.
3. The degree of correlation between the ambiguity of human thoughts and the uncertainty of human behavior. That is: how true does the human behavior honestly reflect the human thought.

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# Affecting Consumer Behaviour through Retail Concentration: The Shopping Streets

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## Abstract

Location has been long considered as an important competitive factor in retailing. Nowadays, firms are more focused on in-store customer profitability than product profitability. Retailers are competing for a front space on the streets in order to gain more visibility, while cities are experiencing a renewal and enlargement process in their shopping “spaces”. In fact, high-traffic locations, even though are costly, still represent the best location to meet customer needs. This has been enhanced by retail concentration, especially in the case of fashion products. This paper tries to understand which factors affect shop attractiveness and to which extent the territorial variable, i.e. agglomeration, influences shopping expeditions and store loyalty.

## Introduction

Since retail represents the link between consumers and products, communication and service, the proximity between demand and supply has not been efficiently exploited by the distribution system. Firms often emphasise buying behaviour, logistics and product assortment rather than customer relationship management.

Nowadays, economic changes are pushing towards strategies which are more focused on in-store customer profitability than product profitability. The variety of distribution has led to developing many levels of relationship with the public space and many levels of attraction. In this sense the distribution system evolves from the craftsman’s studio to the big shopping centre, through intermediate situations such as open markets, department stores, supermarkets, and superstores.

Location choices, depending on the type of activities and level of competition, vary from city centres as huge “traffic” magnets, to suburbs, especially for innovative retail types in which shopping is mixed with leisure. Above all, changes in consumer lifestyle strongly affect the retail demand, forcing the distribution system to reorganise and reposition its offer. Therefore, shopping proves to be a differentiating “activity”, given that buying behaviour is even more characterised by psychological and emotional factors, thus the purchased goods and the stores frequented become lifestyle symbols.

Distribution formula and leisure services can satisfy different needs (i.e. entertainment and necessity) from different segments in the same shopping expedition, so stores become a tool to increase customer satisfaction and stimulate consumption. On the other hand, there is a dualism between the retail dynamic needs and the existing spatial conditions. The former, especially in the case of fashion and shopping goods, requires a strategic position as close to customers as possible, namely huge spaces – almost 150 square metres with 2 windows -, attractive locations – often the city centre – where the consumer need for experience and entertainment is met. The latter could be modified gradually and partially, determining a location hierarchy (Berry, 1963), as confirmed by data in real estate markets: this results from wider changes in politics, economy and society.

It is through location that goods reach the potential customers. It can allow quick access to the market, attract a huge number of consumers and increase the potential sales. In the actual competitive formula, localisation has a significant effect on market share and firm profitability, so the choice is not only a matter of physical accessibility but also of consistency between market spatial features and a firm’s marketing objectives (Ghosh & McLafferty, 1987; Ingene & Ghosh, 1991). Consequently, all cities are experiencing a renewal and enlargement process in their shopping “spaces”; retailers are competing for a front space on the streets in order to gain more visibility – through huge and sparkling stores - and “label” their products through values, symbols, and emotional/entertaining experience (Pellegrini, 2001).

This paper investigates the spatial/territorial dimension of consumption, analysing the concentration phenomenon among shops from the same sector or complementary ones. In fact, by exploiting agglomeration economies shops can be positioned in the consumers' mind, firstly, with the street's collective image and then with the shop's specific image (par. 2). The phenomenon has been studied in Bari, an Italian city with a strong commercial tradition (par. 3). Moreover the fashion sector has been chosen, as the process of agglomeration is mostly taking place in many cities.

In this paper an in-depth analysis will be carried out to investigate shopping behaviour in three of the city's streets, in an attempt to underline the link among shops, shopping behaviour and streets. The paper will try to understand which factors affect shop attractiveness and especially to which extent the territorial variable, i.e. agglomeration, influences shopping expeditions and store loyalty.

## Retail Strategies to Match Consumer and Territorial needs through Shopping

In the present economic situation consumer evolution and the change in buying behaviour have shifted the focus from the product to the experience that it provides. Brands label the extraordinary experience that identifies a social and emotional condition. They represent consumer personality: the product transfers a set of values, emotions and bonds that legitimate the system (product $\Rightarrow$ consumer) identity, in order to maintain in time and space the product messages and values (Pine & Gilmore, 2000; East, 2003).

TABLE 1: THE EVOLUTION OF CONSUMPTION KEY CONCEPTS

1980	1990	2000
Mass consumption	Selective consumption	Extraordinary experience
Quantity	Qualità	Excellence
Social status and position	Self-expression	Lifestyle
The others as benchmark	Yourself as benchmark	Social networking
Brand ostentation	Brand authenticity	Brand personalità
Brands as social symbols	Brands as emotions	Brands as personality identification
Brand loyalty	Brand switching	Brand identity

In particular, fashion has a symbolic function with a psychological dimension – the expression of personality – and a sociological one – the identification and differentiation of the human being – (Baudrillard, 1972).

The economy's new structure is challenging the retail sector, through technologies, Internet, enlarged international markets, the brand role, the new consumer attitude, drawing a highly competitive arena. Actually, despite the fact that retail seems to be in its maturity phase, there are many opportunities to exploit: stores, in particular, have obvious development opportunities; also the threats, namely intense international competition, market enlargement and the consequent role of the global and food retailers, are accelerating the modernisation process of distribution. Moreover, the increased space demand, and consequently higher rents, and the more sophisticated and value-seeking consumption behaviour, are challenging the key concepts on which retail is based (Anderson, 1992; Ramshaw, Brockwell, & Mardones, 1999).

Therefore differentiation is the successful strategy, especially in more and more commoditised sectors, such as fashion. Retail and brands represent the key success factors to compete in the international arena.

Stores become the place where the marketing strategies of a firm come to life; in them firm communicates, fosters the loyal relationship with their customers and constantly monitors market tastes and needs. The store is a determining factor in the brand image and brand identity building processes, since it is the first place to contact the consumer. Store interactivity has to be boosted in order to collect more information on consumer needs and shopping behaviour.

To date retail caters to a wider specialisation, serving specific target markets with different lifestyles and transmitting images, symbols and emotions. On the other hand it presents deep fragmentation, limited efficiency in the distribution network and the high presence of small independent shops. This structure derives from the sector's

need for differentiation, since the point of sale increases the product added value (Ravazzoni & Panciroli, 2002). Store is no longer only a logistic-operative thrust but also a more complete marketing one, especially from a relational point of view.

The new competitive scenario and consumer evolution draw new dimensions for retailers; they should tailor their offer to the continuous changes in consumer preferences for the store assortment and spatial and architectural features.

Localisation, and consequently the point of sale, have two dimensions: the firm one and the consumer one. They should be combined in the search for a store loyalty that matches the brand one. So far stores are physically structured in relation to the spatial position and the products sold, in order to attract consumers and create an ambience (Kotler, 1973) in which to live an experience.

In order to enter the consumer evocative set, the store has to make such an impression as to be positively remembered in the decision-making process while choosing products and brands (Stoltman et al., 1990). Empirical studies (Paulins & Geistfeld, 2003; Mulhern et al., 1998) found localisation, service, assortment depth, price strategies, quality, and store ambience to be discriminatory factors in the relation between retail and customers. In particular, the physical features such as layout, colours, music and crowding, result as strongly affecting shopping behaviour and store choice (Finn & Louviere, 1990; Arnold, Oum, & Tigert, 1983). For example, overcrowded stores can inhibit the shopping behaviour and cause various reactions, that range from reducing the store visit frequency to postponing the scheduled purchases or giving up the shopping expedition entirely (Donovan et al., 1994).

Moreover, store positioning proves to have a strong correlation not only with product features, such as quantity, quality and services, but also with marketing ones, namely price strategies, store format, time factors, benefit sought, consumer's perception and shopping behaviour. All these elements are summarised in the store image, that is strictly correlated to the quality and reputation of the brands sold in it. The store ambience features strongly affect the consumption volume and nature.[1]

This phenomenon is obvious especially for fashion products, in which brand notoriety is combined with particular locations. Firms try to create a glamour context around brands in order to realise an unforgettable experience not only in buying and consuming the product but also in the time spent choosing it within a stylish environment.

## **Retail Concentration as a Marketing Tool for Firms and Cities: The Shopping Streets and their Perception**

In this scenario retail is spatially redefining social spaces and the relations within the city, through the traffic flows it causes. The complex functions of selling require specific locations; from city centres, suburbs, high streets, stations, airports, and so on; while globalisation and the consequent enlargement of space and time relations, necessitate easy access, no separation of the street by huge windows, and free service. Therefore a new relation between consumers and retailers is created, based exclusively on psychological and emotional factors; image and the consumers perception of it play an important role.

Consumption, and its display – shopping-, are shaping city's identities and functions in relation to consumers' needs. The so-called "percorsi degli elefanti"[2] (Amendola, 1998) create a network that assigns new vitality and dynamism to goods and people flows.

Therefore localisation strategies tend towards concentration in order to follow the evolution of consumer needs: for convenience goods concentration results in purchases in a single store; while for shopping goods concentration is the solution to the issue of minimising search costs. On one hand, consumers look for detailed information on product prices, quality and variety, and on the other for entertainment and fun while shopping. To match consumer needs firms are forced to locate their stores near their competitors in the so-called shopping districts/streets.

Such a concentration derives from belonging to complementary sectors and from the presence of magnet stores that modify shopper traffic and mobility, given also the customer exchange among nearby similar commercial

types (Mc Keever & Griffin, 1977). So agglomeration is demand pull; it is possible to offer a complete set of products, that can be bought in the same shopping expedition, granting savings of time and space.

At present distance is no longer the main discriminating factor, it becomes a marketing factor rather than a geographical one. Nowadays accessibility results as the key “shopping” criterion. To be located in the city centre does not assure success in itself; it is the “accessibility image” that counts. So far the trade-off between distance and dimension is influenced by consumers’ perception of the specific store image and of the store network one (Campo et al., 2000).

Urban areas seem to be the best locations for shopping agglomerations by nature. They offer visibility and direct contact as near as possible to consumers, both potential and actual. On the other hand, firms are searching for larger spaces to locate their activity and create an ambience in which consumers can experience more fun and entertainment while shopping. Unfortunately, these requirements match higher location costs and are suitable only for certain products, such as fashion ones. However, spatially they stimulate a repositioning process of city centres and their streets.

A measure of this phenomenon is given by the real estate market performance. In fact despite the overall economic slowdown, retail markets have held up well and retail rents rose approximately by 3% with a relevant performance from Central and Eastern Europe. In Western Europe, the real estate market shows a good demand with a limited supply of good quality space, that has caused strong, or even exceptional, growth for the high streets. Italy scores a slight slowdown in the growth rate in 2003 (3,7% vs 5,3% in 2002) confirming the high level of the rent values (Cushman & Wakefield, 2004). (see Fig. 1)

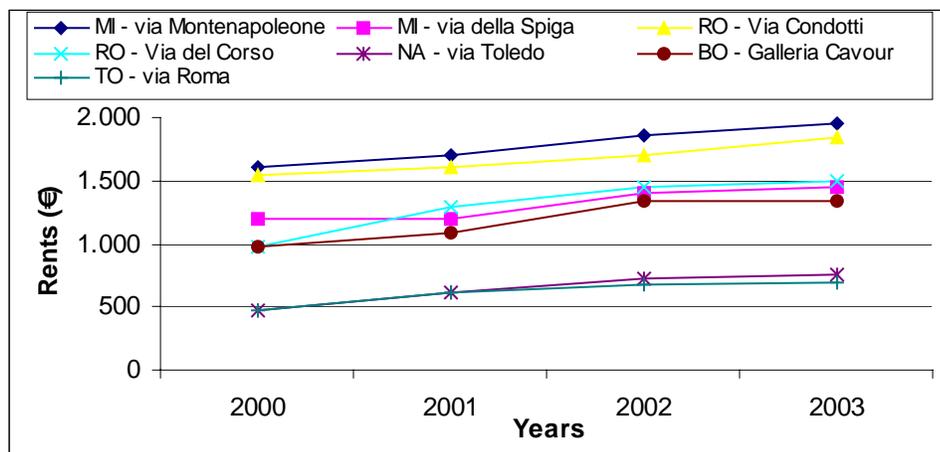


FIG. 1: RENT DYNAMICS IN SOME ITALIAN SHOPPING STREETS  
Source: Cushman & Wakefield (2004)

Throughout all the Italian cities, Bari has been chosen for its long established commercial tradition. As it can be observed in most of Europe, the city is repositioning its image, having lost its regional and provincial commercial leadership. Within its structure, the city centre is suffering strong competition from the suburbs where shopping malls are able to attract many consumers from different areas due to price strategies, the worsening of urban accessibility and the lack of “entrepreneurship”/collaboration among central retailers (Petruzzellis & Falcone, 2005). [3]

Secondary data on Bari highlight the repositioning phase. The trends of rent market and consumer goods prices show the general situation in the city, creating a difficult context in which the match between demand and supply needs new strategies, such as retail concentration.

Firstly, the real estate market trend draws the vivacity of the retail sector which is constantly adapting its offer to consumer needs. The opposite trend of demand and supply is contributing to the progressive increase of the

average prices. In fact, an increase in the real estate market measures an increase in the area's values that can attract further values in a virtuous cycle (D'Arcy and Keogh, 1998).

Secondly, in confirming the results of the real estate market, the price trend of consumer goods, in particular clothing and shoes, are indices of the macro environment that affect and explain the concentration phenomenon. They show parallel trends, the annual average increase is similar with a perfect fitting (see Fig. 2).

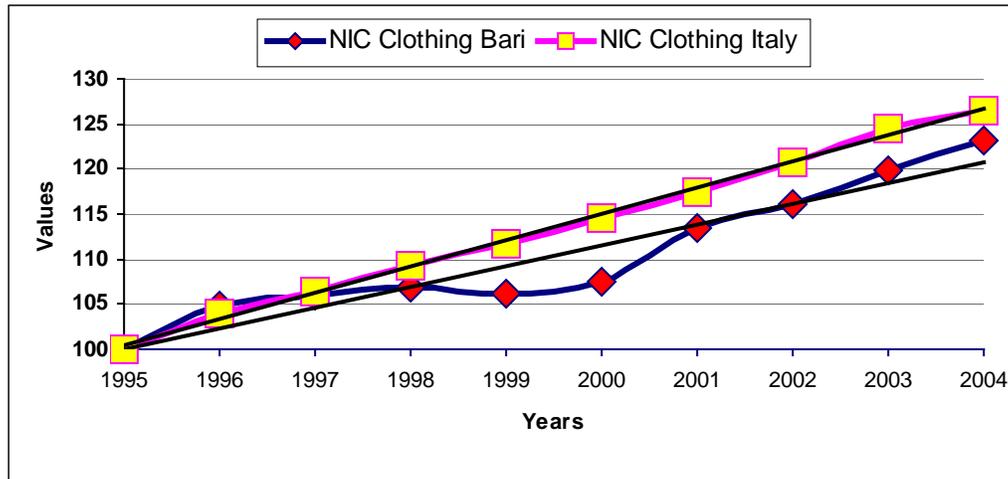


FIG. 2: NIC INDEX FOR CLOTHING AND SHOES: BARI VS ITALY

Source: Istat, 2004.

The linear function with OLS method is for NIC Clothing Bari  $y = 2.33x - 4535$  with a  $R^2 = 0.91$ ; while for NIC Clothing Italy  $y = 2.92x + 5720$  with a  $R^2 = 0.99$

However, the field study is exploratory in nature and intended to develop an understanding of consumer perception of retail concentration, namely shopping streets. Street perception from the place and retail marketing point of view has been analysed. This paper investigates which factors push through retail concentration and attract consumers in three streets in Bari (via Argiro, Corso Cavour and via Sparano).

Data have been collected in one day by interviewing a random sample of 500 people, who were in the three streets analysed. [4] The sample is mostly composed of women, due to sociological and marketing factors, and the average age is approximately forty. As regards sex, sociology explains women's natural attitude through shopping, while marketing explains the huge presence of clothing and shoes stores. Instead the young age is due not only to the location of glamour stores in the streets considered, but also to the location of exclusive cafes and meeting points (see Table 2).

TABLE 2: THE RESPONDENTS BY AGE AND SEX

Age	M	F	Total
< 19	21	26	47
20-25	40	56	96
26-35	26	41	67
36-50	20	39	59
51-65	22	22	44
> 66	15	6	21
<b>Total</b>	<b>144</b>	<b>190</b>	<b>334</b>

These three streets are the most representative from the shopping point of view, both for store number and type, and for their tradition and position. They are perceived as a shopping district within the commercial heart of the city but each with a specific feature: via Argiro is a female oriented street, via Sparano is the city's showcase or "promenade", corso Cavour is the most accessible both physically and for the products sold.

The dataset has been analysed with SPSS; carrying out firstly descriptive statistics, in order to describe the main characteristics of the sample; secondly the correspondence analysis to measure consumer perception of the shopping streets (Molteni & Troilo, 2003).

Like the whole city, the three streets experienced a repositioning process that follows consumer evolution, especially for the fashion sector. In fact, via Argiro was formerly a wholesale street, but has now become an exclusive street to find specialty goods; corso Cavour, due to its strategic position and its easy physical and commercial access, is the middle class street. Lastly via Sparano, one of the oldest city's streets, is the commercial heart of Bari, in which its identity is displayed. Most of the single brand stores of the city are located there.

Firstly, the relation between demographic factors, such as sex, age and distance, and customer loyalty, that measures shopping behaviour, has been investigated through the chisquare statistical analysis (Johnson, 1997). The demographic variables do not influence customer loyalty and consequently shopping behaviour, but influence the image and characterisation of the streets, considered as a structured set of stores. Only via Sparano shows a dependent relation between customer loyalty and age and distance (see Table 3). This seems to derive from factors related to store typology, specifically fashion, and from territorial factors combined with marketing ones, such as the street's image, especially for via Sparano.

TABLE 3: P VALUES OF  $\chi^2$  FOR THE THREE STREETS IN BARI

<b>Variables</b>	<b>Via Argiro</b>	<b>Corso Cavour</b>	<b>Via Sparano</b>
<i>Age-Customer loyalty</i>	0,335	0,392	0,001
<i>Sex-Customer loyalty</i>	0,893	0,313	0,372
<i>Distance-Customer loyalty</i>	0,001	0,834	0,016

In order to analyse why the street is frequented and its influence on shopping behaviour, the usage of the streets has been investigated. Via Argiro and corso Cavour result to be used only for shopping while via Sparano is used also for walking or meeting people, and often, while crossing it, the buying decision is taken.

In particular, via Argiro is used only for feminine glamour shopping, even though it is physically one of the first streets of the city. Also the time spent on shopping confirms the findings: 61% spends 1-3 hours, 21% less than 1 hour, and 18% more than 3 hours. Moreover, the other facilities such as cafes and meeting points, can attract potential users/shoppers, rendering the street enchanting. Corso Cavour has a strong commercial vocation, so consumers frequent it only for shopping without being loyal to specific stores. They spend much time (more than 2 hours for 39%) shopping in the street due to the opportunity it provides to compare products and to the "distance" factor [5]. On the contrary via Sparano is also used for walking, especially because it is a pedestrian precinct, that has labelled it as the "living room" of the city, although the street is losing its brightness due to the worsening of the accessibility conditions.

Finally, to investigate the position of the three streets in the consumers minds, the purchase motivations have been analysed (Grewal et al., 1999) (see fig. 3)

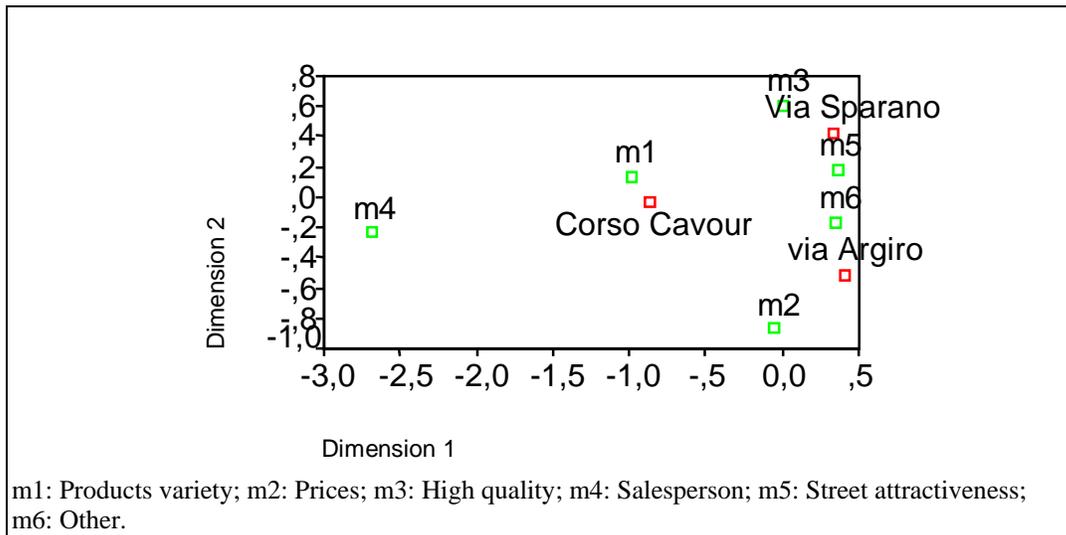


FIG. 3: PURCHASE MOTIVATIONS IN THE THREE STREETS

As can be seen in the figure, people choose to shop in the three streets for different reasons; in particular, corso Cavour is chosen for its wide range of products, that, as in figure 4, represents a weakness rather than a strength because it contributes to a confused image. Via Argiro is chosen for its prices that, even though considered high, do not prevent consumers frequenting it. Instead they contribute to fostering the perception as a stylish shopping street and creating a sort of loyalty discriminated by premium price. In fact, the street customers are willing to pay high prices for fashionable and trendy products. Finally, via Sparano attracts consumers for the high product quality and its good reputation. In fact, it is the street with the high percentage of loyal customers (60%) especially for the prestigious fashion brands sold.

In conclusion, the positioning map (see fig. 4) defines three areas in relation to shoppers' perception. For via Sparano and via Argiro the perception results as well defined, as stylish streets, whose fashionable and trendy products and stores are differentiating elements that contribute to legitimise the firms' brand identities and the opportunity to charge a premium price to justify the location. Especially in the case of via Sparano, the street positioning derives from its tradition, but has repositioned itself in order to follow consumer and fashion evolution, by changing its front and store type. [6] On the other hand, corso Cavour has a less clearly defined positioning, due to its confused perception. That is why the high variability and the wide variety of store typology, that are not often coordinated.

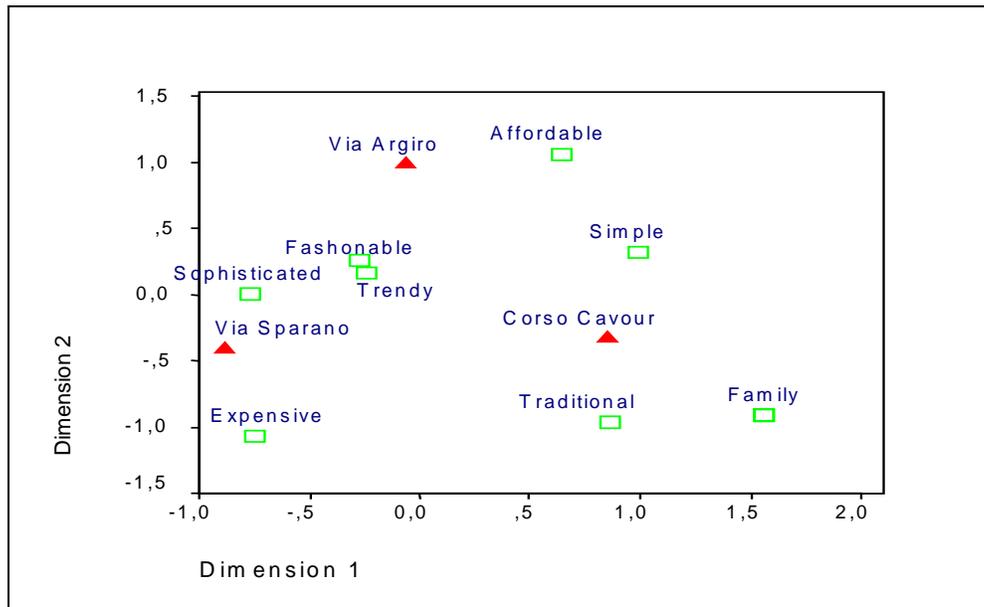


FIG. 4: POSITIONING MAP OF THE THREE STREETS

## Conclusions

The case analysed highlights how retail concentration is based on market multi-segmentation. It results as a new strategic opportunity to avoid the saturation of customers' positioning perceptual map, filled by similar values and messages (Featherstone, 1994). The store proves to be the place where a firm's identity is displayed and brand identity is built, and, together with the territory and the competitors (Nalebuff & Brandeburg, 1996), creates a relational contest to provide pleasant experiences.

The shopping streets and city centre are seen as brands with "symbolic value and personality" (Brown, 1992) which can be developed and maintained (Warnaby & Davies, 1997). The shopping district can be seen as a "bundle of benefits", both tangible and intangible. As all networks (Davidow and Malone, 1992; Van Haken et al., 1998; Baccarani & Golinelli, 1992; Lorenzoni, 1992), shopping streets create relations which cause crossing flows in proportion to the dimension and the attractive capabilities of the various retail activities, and that foster vitality for the city they serve.

In conclusion, retail concentration is a strategic element both for firms and for cities in order to be part of the competition. Therefore it is a marketing thrust that boosts and helps create brand identity, increasing the relational tools to impact consumer perception. Location plays a new role in the competitive formula, stimulating the use of a systemic approach (Golinelli, 2001) in relative management choices.

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### **End Notes**

1. As Lovemark (1972) found, “sunshine stimulates shopping”, in order to define purchasing behaviour especially in the northern regions.
2. They are the streets that are automatically covered by all the transport means, unconsciously following paths designed by custom stratifications.
3. Interviews showed that they are confident that central location will always grant a position income. It is clear that they do not understand how to maintain their leadership and to gain higher value from their location.
4. The response rate was 66.8% of the sample.
5. 47% of the interviewees did not come from Bari.
6. A clear example of the repositioning is Palazzo Mincuzzi, that used to be an elite store, while now is a medium one. Moreover the fifty-year-old interviewees underlined the shift of the street perception from “living room” to “arcade”, in order to mark the less exclusiveness.

# Brand Behaviors and Descriptors of Malaysian Teenagers

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## Abstract

A critical function of market research is to inform managers of consumer behaviours in the markets in which they serve. For sporting wear operators, one of the key inputs in making strategic decisions is data on the attitude of shoppers towards brands. In this study, two areas of consumer behaviours – (teenager) awareness and acceptance towards international and local brands were examined. In addition, moving away from past works on teenage consumers that focussed mainly on peer groups and media influence as descriptors, this study offers another angle to the determinants of brand behaviour using Gaedeke & Tootelian (1983) framework. The findings established that international brands reigned supreme in the teenagers' mind and heart. On the other hand, confidence, identification and familiarity emerged as the dominant descriptors of brand behaviour. Indeed, the outcome presents great challenges to local producers in time of rapid global change.

## Introduction

Many products and services differentiate themselves from competitors by doing a better job of giving customers the perception that they are of higher value or better at a particular product characteristic. One of the key ways to convey perceptual difference is branding. Retailers, therefore, are very interested to understand the behavior of their consumers towards the various types of brands that they carry as this knowledge will have a major impact on their merchandising strategy and profitability.

The number of Malaysian teenagers is expected to stand roughly 20 percent of the population or 6 millions by year 2005 (Euromonitor, 2003). Although no data of their spending amount can be found, this research has shown that on average, they were given RM100.00 per month to spend, amounting to RM7.2 billion per year. Consequently, knowledge of how, what, where, which brand and how much a teenager spends is critical to the business stakeholders.

This paper takes a look at two dimensions of brand behavior – brand awareness and brand acceptance in the context of the footwear industry with Malaysian teenagers as the samples. The aims are to describe and compare the awareness and acceptance levels towards international and local footwear brands as well as to establish the factors that significantly affect these two brands behavior. Specifically, this research answers the questions of: What are the awareness and acceptance level of Malaysian teenagers towards international and national sporting footwear brands? What are the descriptors of teenagers' brand choice? Will 'family' influences teenagers brand decision? Is there any relationship between teenagers' ethnicity and brand choice?

## Literature Review

According to Gardner & Levy (1955); King (1973); Madden, Hewett & Roth (2000), in earlier days, brand was simply seen as a name. However, it underwent a fundamental change in the middle of the twentieth century when the Westerners tried to develop an increasingly diverse interests and lifestyle (Rogers 1991; Cook & Walters 1991). In line with this change, the Westerners began to seek those brands that were able to impress their friends, display wealth or signal style (Porter & Claycomb, 1997). Therefore, a brand, by then was seen as 'a complex symbol that represents a variety of ideas and attributes' (Gardner & Levy, 1955). In short, a brand symbolizes a 'personality' (King, 1973; Madden, Hewett & Roth (2000)).

### **Brand Awareness and Acceptance**

Rossiter and Percy (1987) describe brand awareness as being essential for the communications process to occur as it precedes all other steps in the process. Without brand awareness occurring, no other communication effects can occur. For a consumer to buy a brand they must first be made aware of it. Brand attitude cannot be formed, and intention to buy cannot occur unless brand awareness has occurred (Rossiter, Percy, & Donovan, 1991). Therefore, awareness is the necessary first step towards adoption (Crawford & Di Benetto, 2000). What is then brand awareness?

Churchill (1995) sees brand awareness simply as 'what people do or do not know about an object or a phenomenon'. Schiffman & Kanuk (2000) suggests that awareness encompasses the notion of customer's interest level or buyer readiness state, while Mandler (1980) believes that the meaning of awareness ranges from a simple identification of a brand to a highly developed cognitive structure. Dave (2004); Levy & Weitz (2004), on the other hand, defined brand awareness as "when people recognize your brands as yours". According to them, brand awareness consists of both brand recognition which is the ability of consumers to confirm that they have previously been exposed and brand recall which reflects the ability of consumers to name the brand when given the product category, category need or some other similar cue. Further, in a study involving marketing managers as subjects, 61% of respondents defined brand awareness as simple recognition of a brand (Macdonald & Sharp, 2003).

The above scenario obviously illustrates the different views and extents of the meaning of brand awareness, from simply 'knowing' to as complex as 'a highly developed cognitive structure'. To operationalise the awareness dimension, the one used by Dave (2004) and Levy & Weitz (2004) is adopted in this study - that is the ability to recognize or recall brand sufficiently. Further, as noted by [www.allaboutbranding.com/index.lasso](http://www.allaboutbranding.com/index.lasso), brand awareness is the realization by a consumer of the existence and availability of a particular product through either unaided awareness (spontaneous) or aided awareness (when the name is recognized among others that are listed or identified). To study these two dimensions, the research instrument contained both brand recall and brand recognition tests.

Brand acceptance is the psychological process relating to information assimilation about the brand that will lead to the decision that the brand is an acceptable alternative. Brand acceptance is very important from a marketing perspective because it is a precursor to brand choice and purchase. Acceptable brands are evoked from memory for further consideration. Further acceptance also can be classified as the decision maker's personal agreement with attributes of the brand. The concept of consideration sets makes brand choice a two-step process. Households first construct a consideration set which not necessarily includes all available brands and conditional on this set they make a final choice. To measure brand acceptance, the research instrument in this study contained both the recall and recognition of brand choice and brand purchase.

#### **Descriptors of Brand Awareness and Brand Acceptance**

Brand awareness is very important in consumer decision making for several reasons. Firstly it is important for the consumers to think of the brand as they are thinking about the product category. Secondly, expanding brand awareness raise the likelihood that the brand will be included in the consideration set and receive serious concern for purchase. Thirdly, brand awareness can influence decision about brands in the consideration set. According to Petty and Cacioppo (1986) consumers will choose products based on brands in the consideration set. Finally, brand awareness affect decision- making by influencing the formation and strength of the brand association and the brand image.

Establishing a good brand name is a very complex process (Gaedeke & Tootelian, 1983). This view is supported by many past studies. Further, research works conducted on branding and issues related to it proposed that once consumers become aware of a product, they evaluate it to determine the level to which it is acceptable to them. The evaluation factors, according to the above authors can be broken down as follows:

1. Familiarity  
Consumers are generally more comfortable with something that is known.
2. Confidence  
When consumers trust a product, they will return to it again.
3. Differentiation  
The brand concepts allow the consumer to differentiate one from another.

#### 4. Identification

A brand stance that allows an individual to identify with a specific product in a way that reflects her own taste and life style.

#### 5. Prestige

Consumers often use products to gain group approval.

Past studies such as that of Hoch & Banner (1993); Gardner & Levy (1995) had underlined that compared to local brands, consumers, in the past viewed international brands as having 'superior' personality. Moreover, the study conducted by Bristow & Asquith (1999) has shown that, '*the higher is the need for recognition, the higher is the need to purchase branded items (designer names)*'. These scenarios provide a platform for this study, as teenagers tend to exhibit this kind of behavior. In addition race has been found to be an important factor influencing teenagers behavior in Malaysia (Selamah & Ruzita, 1999; Abd. Rahman, 1999:2002). Though bonded by Eastern cultures, past experiences imposed contrasting values on the three major ethnic groups. These differences led to diverse lifestyles, which in turn shaped their buying behaviours. The following excerpts provide the background to their diversity.

Excerpt 1:

*"The real Malay is courageous...but he is extravagant, fond of borrowing money and slows in repaying it...he is proud of his country, his people, venerates his ancient customs and traditions and has a proper respect for constituted authority..."* (Andaya, 1982).

Excerpt 2:

*"Those (the Chinese) who made the journey (to Malaysia) and survived were exceptionally hardy and determined. Their attitudes were, and had to be, fiercely competitive"* (Jayasuriya, 1983).

Excerpt 3:

*"The planters wanted a labour force which would be more disciplined and industrious than the Malays and more docile than the Chinese. For a solution to their problems, they turned to the Tamils of South India"* (Snodgrass, 1980).

Indeed, in the study of shoppers, ethnicity is an important descriptor to Malaysians' buying behavior. Past literatures, such as the works of Abd. Rahman (1999:2002), for example, have highlighted that the Chinese adults are price conscious shoppers while the Malays and Indians are more brand conscious. It is expected therefore, in this study, that the outcome would be parallel to the above (Abd. Rahman, 1999:2002) work.

Generally speaking, many brands found in the consumption world act as social tools for communication between the individual and significant others (Leigh & Gabel (1995). The constant search for acceptance and identity are reflected by the brands that they chose and can also be influenced by media, peer groups, reference groups, role models, and family (Wee, 1999; Childers & Rao, 1992; Martin & Bush, 2000). Therefore, being young, it is understandable that teenagers prefer to own internationally branded items. Nevertheless, there are instances in which, international brands may not always win teenagers' hearts. In his study (Wee, 1999) on popular brand names involving 600 teenagers in Singapore, although the respondents cited Nike – an international brand as the most popular sport shoes, they picked Giordano, a home-based brand as the most popular casual wear. Thus, this outcome signals the potential of local brands to be in the consideration set and accepted as the brand of choice.

Family influences their household members' norms, attitudes and values because of the more time they spent together. Through the family unit the children can obtain skills, knowledge and attitudes towards life and consumption patterns. Wald (1974) classifies this learning process as consumer socialization. According to the author, it is not necessary to learn new knowledge to be a consumer because they can accept what has become a firmly accepted norm in the family. As such the preference to certain products can come easily for them through their family influence. Furthermore, parents can influence the behavior of teenagers through rewards. Besides parents, siblings have also been found to influence teenagers in the area of fashion, music and leisure activities that will lead to specific consumption patterns. In many instances, due to their close proximity, a child can grow up idolizing their parents or siblings.

In a study by Martin and Bush (2000), the influence of direct role models (parents) and vicarious role models (favorite athletes and celebrities) on teenagers' purchasing behavior was examined. Their results indicate

that both direct and vicarious models influenced teenagers' purchasing behavior. Further outcome also suggest that parents and entertainers have a greater impact on purchase intentions than athletes and that parents consistently exhibited stronger influence on adolescent purchase intentions and behaviors than vicarious role models did. Beatty & Talpade (1994) analyzed the influence of parental employment status on teens as well as gender-based differences in perceptions. According to the authors, motivational aspects including product importance and usage provided the strongest and most consistent explanations of teenagers' perceived relative attention across stages and purchase situations. Furthermore parental employment status positively influence teens' perceived influence of durable family purchases. Their study indicates that mothers and daughters generally did not differ in the ratings of the daughters' perceived influence in the durable purchase decision-making process, while fathers' and sons' ratings did differ.

Ross & Harradine (2004) conducted a study to investigate the relationship between school children and branding in England. The authors included pre-focus groups, focus groups, and census of all children and a survey of parents. Their findings prove that brand recognition commences at early age with older age groups having greater brand awareness. This study identified the differences in the perceptions of parents and their children's towards brand, with parents express their concerns over the effects of branding. It is found that older children saw the role of branding in enhancing self-esteem and acceptance in peer groups. Further, Kirchler (1993) suggested that peer groups have greater influence than family as children grow up to be adult. That is, adolescents will look for approval and acceptance in peer groups to get the opportunity for gaining new attitudes and social skills necessary for future interactions. In essence, these findings should support two dimensions of brand behaviour as noted by Gaedeke & Tootelian (1983) - prestige and differentiation.

In Malaysia, a study suggested that the influence of family and peer groups differ according to product category. Sim and Huei (1999), while examining the attitude and purchase behavior of teenagers towards Malaysian made products, found that the family was the major source of influence for the purchase of food, beverages, cosmetics, toiletries and clothes. On the other hand peers group have greater influence for the purchase of books and magazines. For electrical goods media influence was ranked as the most important source.

Without a doubt, there are many determinants to teenagers' brand behaviour. This paper, however, will focus on the five dimensions described by Gaedeke & Tootelian (1983) – familiarity, confidence, differentiation, identification, prestige and the influence of family. In fact a study using the above variables has been conducted on Malaysian female shoppers in 2000 (Abd. Rahman, 2000). The result has shown that identification is the most deciding factor in their brand choice. It would be very interesting to see whether the result of this study will generate the same outcome.

## **Research Methodology**

Essentially, two types of fieldwork were carried out in this study. First was an observational study to gain an exhaustive list of sporting footwear brand names in various retail outlets. Second was a survey to capture the teenagers' attitude towards brands, the level of awareness and acceptance, and descriptors of brand choice.

The observational study was carried out by visiting major shopping complexes in Klang Valley to record as many sporting footwear brands as possible and to observe teenagers behavior, while they were in the sporting footwear specialty stores and departmental stores. The shopping complexes visited were Midvalley Megamall, Damansara One Utama, Sunway Pyramid, Leisure Mall, Suria KLCC and Lot 10. Later, a set of questionnaire was designed to describe the awareness and acceptance of teenagers towards local and international brands. Teenagers, in this study, refer to those who are still schooling and in the age bracket of 13 to 17 years old. In Malaysia, this age range points out to secondary school students in form 1 to form 5. Several schools in Shah Alam, Petaling Jaya, Puchong and Bukit Nanas were selected and 300 respondents were intercepted.

Section A of the questionnaire contains statements that are reflective of the brand behaviour descriptors as noted earlier. Section B was designed to gauge teenagers' awareness and acceptance towards sporting footwear. The questions in this section were developed based on the information gathered during the observational study in the shopping complexes. Section C contained questions on the respondents' demographic. Demographic factors such as race, age, gender, monthly allowance and favorite shopping spots were used in this questionnaire.

To describe brand awareness and acceptance of the respondents, data was processed through frequency technique. Descriptive statistics, reliability tests, cross tabulations, annova, and factor analysis were later performed to identify the relevant brand descriptors. Factor analysis is "*a generic name given to a class of techniques whose purpose often consists of data reduction and summarisation*" (Hair, Anderson, Tatham, & Black, 1998). It attempts to draw out a number of factors underlying the input variables and it should be possible to label them in terms of the original variables. Factor analysis could also create an entirely new set of variables that is much smaller in numbers to partially or completely replace the original set of variables. Thus this analysis technique can be used to confirm or explore the proposed dimensions (Hair, Anderson, Tatham, & Black, 1998).

Fundamentally two basic decisions have to be made, prior to using this factor analysis (Green and Carmone, 1970). They are:

1. How many factors to extract?

The first few factors to be extracted are likely to have greater descriptive powers. On the other hand, later factors are more likely to be the result of unreliability of measuring instruments and other sources of error.

2. How to rotate the resulting axis?

The objective of the rotation is to attempt to make each variable has a substantial loading on as few factors as possible. The first issue is whether to rotate the resulting axes; and if so, what kind of rotation?

To address the first issue, items with communalities less than 0.4 were eliminated while all factors whose eigenvalues exceed 1.00 (this the default in SPSS 12.0) were extracted. As to the second decision, a varimax rotation was chosen (SPSS 12.0). Later, the variables were grouped together according to their factor loadings to describe the resulting brand descriptors.

## Findings and Analysis

### Profile of Respondents

Table 1 provides the respondents' demographic profile. As shown, respondents were almost equally spread out in term of age and gender. Likewise, the percentage of race reflects the current ethnic proportion in Malaysia. It is also worth noting that the majority of them get above RM100 of monthly allowance – the top most allowance bracket set by the researchers. This outcome shows that a large number of these teenagers received a much higher amount of pocket money than anticipated (by the researchers). The majority of them cited 'Midvalley Megamall' – one of the most upmarket shopping complexes in Malaysia as the place they bought their sports shoes. Suria KLCC, the most prestigious retail complex, came third.

Table 2 provides an overview of Malaysian teenagers' attitude towards local versus international brands. As demonstrated in the table, Malaysian teenagers were rather receptive towards local brands when they disagreed (mean 3.66) that '*Made in Malaysia brand is low quality*'. Likewise, they seemed to choose product suitability over brand names (2.61). Nonetheless, they agreed that '*the main problem with local brands is low image*' (3.22). Given the latter attitude towards local brands, it is not surprising the teenagers responded positively to '*international brands gave them more satisfaction than local brands*' (2.80) and it registered the smallest standard deviation. The highest variance in answers (1.560) belongs to '*I am not bothered with brand names*' registering mean responses of 3.44 – a neither 'agree' and 'disagree' response. In essence, this outcome points out that Malaysian teenagers associate local brands with low image and international brands with high image, the finding that parallels with many studies in this area mentioned in the literature review. Therefore, international exudes cooler personality. As image building is not something that can be created overnight, this outcome signals a choppy time ahead for local producers. It is critical to the long-term success of a product to build the right brand image by paying attention to understanding these teenagers better and meeting their needs as closely as possible.

TABLE 1: BACKGROUND OF RESPONDENTS (n=300)

Age	Percentage	Monthly allowance	Percentage	Shopping Complex	Percentage
13 years old	17.0	Below RM20	9.3	Sunway Pyramid	18.3
14 years old	22.0	RM21 - RM40	18.7	Leisure mall	3.0
15 years old	20.3	RM41- RM60	19.7	Lot 10	3.7
16 years old	21.0	RM61 - RM80	15.3	Midvalley Megamall	30.0
17 years old	19.7	RM81 - RM100	15.3	Suria KLCC	10.3
		Above RM100	21.7	Damansare One Utama	6.7
				Others	28.0
Race	Percentage	Gender	Percentage		
Malay	66.3	Male	48.0		
Chinese	18.7	Female	52.0		
Indian	12.0				
Others	3.0				

TABLE 2: TEENAGERS ATTITUDE TOWARDS BRANDS

	Mean	Std. Deviation
Made in Malaysia brand is low quality	3.66	1.545
I am not bothered with brand names	3.44	1.560
I do not care about brand. The important thing is, the products suits me	2.61	1.499
International brand names give me more satisfaction than local brands	2.80	1.393
The main problem with local brands is low image	3.22	1.448

Scale 1 (Strongly Agree) - 6 (Strongly Disagree)

#### Awareness and Acceptance Towards Sports Shoe Brands

To measure the level of awareness and acceptance towards sporting footwear by teenagers, respondents were first asked to name the brand of sports shoe they were most familiar with, the most recent purchased brand and sports shoe brand of their choice. The 300 respondents cited about 25 brands on these three dimensions. Nonetheless, only four brands registered high percentages (more than 5%) on brand awareness and acceptance (brand purchased and brand choice). Table 3 shows the top four familiar brands, top four currently used brands, and the top four preferred brands respectively. Replicating the outcome discussed earlier, it is beyond doubt that these teenagers were more familiar with international brands - a natural outcome, given its image, cool personality and wide circulation in all retail outlets in Klang Valley. Among these international names, Nike and Adidas came top in awareness and acceptance (both purchased and choice). The fact that Nike is the most popular sport-shoe brand as uncovered in this study concurs with the one carried by Wee (1999) discussed earlier. Nonetheless, it is also worth noting that one local brand 'Power' managed to muscle into the top four brands in both brand awareness and acceptance (bought) dimensions.

Interestingly or rather understandably, while Nike and Adidas were consistently placed as the top two most familiar and most accepted brands, the third and fourth placing in the awareness and acceptance grids were dynamic. Reebok was third in the familiarity and brand choice segments, Power topped Reebok in purchased brands, and Skechers replaced Power in brand choice dimension. Arguable, price is the pushing factor for Power's acceptance. However, as noted earlier, Nike and Adidas brands were widely accepted even though their prices were very much higher than the above local brand. Brand value of Nike and Adidas, therefore, is so much higher than Reebok that if the teenagers can afford it they will buy the former brands. This outcome shows that price does matter in deciding the total package of brand value but it is the weakest dimension in brand value. Thus differentiating one's brand though this attribute is a risky business. Besides, this outcome further confirms the positive relationship between brand awareness and acceptance. Finally, the data in Table 3 also revealed that locally branded sports shoes were not in teenagers' brand choice consideration set. Naturally these outcomes should be a cause of concern to local sports shoe producers as globalization brings with it intense competition.

TABLE 3: BRAND AWARENESS AND ACCEPTANCE – RECALL TEST

Brand Most Familiar		Brand Purchased (current)		Brand of Choice	
Brands	Percentage	Brands	Percentage	Brand	Percentage
Nike	47.0	Nike	25.0	Nike	46.0
Adidas	28.0	Adidas	21.7	Adidas	23.7
Reebok	5.7	Power	10.0	Reebok	5.0
Power	5.7	Reebok	9.0	Skechers	3.6
Percentage top four	84%		65.7%		78.3%
Others	16%		34.3%		21.7%
Total	100%		100%		100%

Table 4 on the next page demonstrates the result of aided recognized test, where the respondents were exposed to eighteen different brands collected through the observation at sports specialty shops and departmental stores. Replicating the recalled test results on brand awareness, Nike, Adidas, and Reebok captured the highest percentage. However, Puma came fourth, replacing Power, which occupied the fifth place. Nonetheless, in terms of acceptance Puma only obtained 39.7% of the purchased sports footwear. This could be because, even though Puma is a well-known brand, its usage for normal sports footwear is limited. It is also worth noting that the level of awareness of Umbro, Mizuno, Carlton, Fila and Diadora were more than 50% but these brands only experienced less than 30% of acceptance (buying) level. Naturally, this outcome reflects the specific usage of these brands, where Umbro is a brand mainly known for soccer, Carlton for badminton, Mizuno more into golf and Fila and Diadora are for casual rather than sports. Therefore, many teenagers may have heard of these brand names but did not have the need to buy these shoes.

It is important to note (Table 4) that, although Nike enjoyed the highest level of awareness (99.3%), the acceptance level (purchased) was not as high as Adidas (69.7% versus 66.0%). This outcome, in the beginning may seem to contradict with the one in the recall test (Table 3). One possible explanation could be that (since this a multiple response question) a number of teenagers who purchased Nike had also purchased Adidas. Power, the local brand came third, reflecting its unchanging position from the recall test. At the fourth place in purchased brand is another local brand ‘North Star’, which secured the same position with Reebok. Again, price might be the factor to this outcome.

Finally, Table 4, once more, confirmed that local brands were way below in the brand choice dimension. On the other hand, Nike was at the top of Malaysian teenagers mind as the brand to own. So dominant was Nike in this brand choice dimension, it commanded roughly two times the number of teenagers who aspire to own Nike as compared to Adidas, the second position of the brand choice segment. The conclusion then, brand awareness and brand acceptance is positively correlated and the majority of Malaysian teenagers included Nike in their consideration set and inspired to own Nike and would own Nike if they can afford. In the long run, this trend would spell danger to local producers who are reluctant to invest in brand building. This outcome does show that price matters in deciding the total package of brand value but it is the weakest dimension in brand value. Literature earlier has indicated the many interrelating factors that might lead to the fondness towards international brands. Among them are family and peer pressure. The next subsection will tackle these issues along with the framework suggested by Gaedeke and Tootelian (1983).

TABLE 4: BRAND AWARENESS AND BRAND ACCEPTANCE OF SPORTING FOOTWEAR

Brand Have Heard		Brand Have Purchased		Brand of Choice	
Multiple Choice		Multiple Choice		Single Choice	
Brand	Percentage	Brand	Percentage	Brand	Percentage
Nike	99.3	Nike	66.0	Nike	52.6
Skechers	34.7	Skechers	7.3	Skechers	4.1
Puma	96.3	Puma	39.7	Puma	2.9
Adidas	98.3	Adidas	69.7	Adidas	27.0
Saucony	2.7	Saucony	0	Saucony	0
Mizuno	58.3	Mizuno	13.7	Mizuno	0.3
Reebok	96.7	Reebok	56.0	Reebok	5.7
Aasics	34.7	Aasics	8.3	Aasics	0
Yonex	85.7	Yonex	34.3	Yonex	0.3
Umbro	79.3	Umbro	26.3	Umbro	0.3
Vans	24.7	Vans	9.0	Vans	1.5
Weinbranner	20.3	Weinbranner	7.3	Weinbranner	0
Power	90.7	Power	58.7	Power	3.1
North Star	87.3	North Star	56.0	North Star	1.8
Carlton	74	Carlton	28.0	Carlton	0
Fila	85	Fila	25.0	Fila	0
Brooks	18	Brooks	2.3	Brooks	0
Diadora	77.7	Diadora	23.3	Diadora	0.3

**Descriptors of Malaysian Teenagers’ Sporting Footwear Brands**

Teenagers’ attitude towards the six descriptors of brand acceptance - familiarity, confidence, differentiation, identification, prestige and family was measured through ordinal and interval scales. Respondents were first asked to rank the six variables according to its importance in buying a sport-shoe. Next, they were asked to respond to the six point Likert scale ranging from 1 - ‘totally agree’ and 6 - ‘totally disagree’. Table 5 below shows the ranking results. As displayed, the teenagers ranked internally driven factors as the most important dimensions starting with ‘confidence’ to be followed by ‘identification’ and ‘familiarity’. Factors associated with socialization such as ‘Prestige’ and ‘Differentiation’, however, were of less importance. It is also worth noting that ‘family’ became the least important factor. This is quite a surprise outcome given that Malaysians in general; and Asians in particular are noted as very family-oriented. On the other hand, outcome such as this may signal that Malaysians are fast embracing the modern world and thus, are more flexible in bringing up their children.

TABLE 5: THE MOST IMPORTANT FACTOR IN BRAND PURCHASED

Reason	Percentage
I trust the quality of the brand (confidence)	38.1
I know the brand well (Familiarity)	11.2
The brand is unique (Differentiation)	8.8
The brand is very prestigious (Prestige)	8.9
The brand is very suitable with my style (Identification)	22.4
The brand is recommended by my parents (Family)	9.7
Others (eg. Cheap, I like it, my choice)	0.9

The Likert scale questions with several statements representing each of the six dimensions were first subjected to reliability test (alpha) with readings ranging from 0.863 to 0.690 and thus accepted for further analysis. Mean for each dimension and an example of each statement was demonstrated in Table 6. The outcome shows that ‘confidence’ was the main determinant of brand acceptance to be followed by ‘familiarity’ and ‘identification’. In essence, the outcome of the ordinal and Likert data supports each other leading to a conclusion that Nike is the most familiar and accepted brand because it is able to best positioned its brand value as the brand that consumers can

depend on. Once more the data in Table 6 provides evidence that ‘family’ is the least influential factor in deciding the teenager’s brand behavior.

TABLE 6: DESCRIPTORS OF BRAND BEHAVIOUR

Descriptors	Example of statements	Mean
Confidence	I like to buy brands that I trust its performance	1.63
Familiarity	I like to buy brands that I am familiar with	2.20
Identification	My brand of choice must reflect my personality	2.20
Prestige	I feel proud if I use prestigious brands	2.59
Differentiation	I like brands that make me different from the others	2.83
Family	I buy brands that my parents suggest	3.86

To gain an insight on the association between race and the six attributes of brand behavior, Table 7 demonstrates Anova output. As noted, ethnicity has an impact on familiarity, identification, and prestige. Among these dimensions, prestige registered the highest association. On the other hand, family, differentiation, and confidence did not vary significantly across each race.

TABLE 7: ANOVA – RELATIONSHIP BETWEEN RACE AND DESCRIPTORS

		Sum of Squares	df	Mean Square	F	Sig.
Confidence	Between Groups	9.233	3	3.078	2.030	.110
Familiar	Between Groups	13.523	3	4.508	2.785	.041
Identification	Between Groups	9.351	3	3.117	2.693	.046
Prestige	Between Groups	19.170	3	6.390	5.437	.001
Differentiation	Between Groups	4.557	3	1.519	.956	.414
Family	Between Groups	9.760	3	3.253	2.203	.088

Cross tabulation (Table 8) shows that Indians were most prestige conscious to be followed by Malays. This outcome does reflect the work of Abd. Rahman (2002) and goes to confirm that the lower is the economic status of a race, the higher is the need to buy brands that symbolize prestige. Being the poorest among the three dominant races in Malaysia and with the history painted earlier by Snodgrass (1980), brand acts as social tools for them to communicate with the significant others (Leigh & Gabel (1995). On the same note, being most ‘superior’, the Chinese were the least bothered with this ‘prestige’ dimension.

Another cross tabulation was also performed to see the association between prestige and age. As evidenced in Table 9, younger children were very much influenced by prestige in brand choice. This is not a surprise outcome and goes to show that the younger a person is, the easier influence them through the right advertising message. On the other hand, as a person gets mature, it is much harder to influence them, a finding parallel to Ross and Harradine (2004). Cross tabulation between prestige and gender was also carried out to gain insight of their association. The resulting Chi-square at 0.55 indicates that neither male nor female teenagers behave differently enough in this dimension.

TABLE 8: MEAN PRESTIGE \* RACE

% Within race		Malay	Chinese	Indian	Other	
Mean Prestige	1.00	4.5%		19.4%	33.3%	6.3%
	1.33	9.5%	1.8%	19.4%		9.0%
	1.67	6.0%	16.1%	8.3%	22.2%	8.7%
	2.00	13.6%	5.4%		11.1%	10.3%
	2.33	17.6%	8.9%	13.9%		15.0%
	2.67	14.1%	14.3%	13.9%		13.7%
	3.00	8.5%	7.1%	2.8%		7.3%
	3.33	6.0%	12.5%	5.6%		7.0%
	3.67	3.5%	7.1%	5.6%		4.3%
	4.00	6.0%	7.1%	8.3%	11.1%	6.7%
	4.33	6.0%	5.4%		11.1%	5.3%
	4.67	2.5%	3.6%		11.1%	2.7%
	5.00	.5%	3.6%			1.0%
	5.33	.5%	3.6%			1.0%
	5.67	1.0%	3.6%			1.3%
6.00			2.8%		.3%	
Total		100.0%	100.0%	100.0%	100.0%	100.0%

TABLE 9: MEAN PRESTIGE \* RACE

% within Age		13 years old	14 years old	15 years old	16 years old	17 years old	
Mean Prestige	1.00	23.5%	1.5%	1.6%	1.6%	6.8%	6.3%
	1.33	23.5%	10.6%	6.6%	4.8%	1.7%	9.0%
	1.67	7.8%	7.6%	8.2%	11.1%	8.5%	8.7%
	2.00	13.7%	9.1%	11.5%	6.3%	11.9%	10.3%
	2.33	7.8%	22.7%	14.8%	17.5%	10.2%	15.0%
	2.67	2.0%	15.2%	13.1%	14.3%	22.0%	13.7%
	3.00	3.9%	4.5%	8.2%	14.3%	5.1%	7.3%
	3.33	5.9%	9.1%	6.6%	7.9%	5.1%	7.0%
	3.67	3.9%	7.6%	6.6%	3.2%		4.3%
	4.00	2.0%	6.1%	4.9%	7.9%	11.9%	6.7%
	4.33	3.9%	4.5%	6.6%	4.8%	6.8%	5.3%
	4.67		1.5%	3.3%	1.6%	6.8%	2.7%
	5.00			3.3%		1.7%	1.0%
	5.33	2.0%			3.2%		1.0%
	5.67			3.3%	1.6%	1.7%	1.3%
6.00			1.6%			.3%	
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To explore further the six dimensions, factor analysis was run on all the statements representing these descriptors. Table 10 and 11 provide the outputs. As evidenced in Table 10, four distinct dimensions of brand orientation emerged with variance explained ranging from 27.62% to 8.15%. The first factor (Table 11) was a collection of statements related to ‘differentiation’ and ‘prestige’, with the former became the core emphasis. Therefore this dimension was labeled as *self-esteem*. The second factor consisted of ‘identification’ statements, thus it was labeled as such. The third factor, on the other hand, reflects the dimensions of ‘confidence’ and ‘familiarity’. Since familiarity can lead to confidence, this factor was labeled as *confidence*. The last emerging factor as clearly illustrated in the table was *family*. In general the outcome shows that all the dimensions put forth earlier are relevant to the study Malaysian teenagers brand orientation. Nevertheless, the findings also indicated that Malaysian teenagers in general possess less complex brand behaviour since several dimensions merged together. Given time, however, this complexity will grow, making it more difficult to fulfill their distinct needs and wants.

TABLE 10: THE COMPONENTS

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.868	27.629	27.629	3.868	27.629	27.629	2.621	18.720	18.720
2	1.895	13.537	41.166	1.895	13.537	41.166	2.507	17.909	36.629
3	1.421	10.149	51.316	1.421	10.149	51.316	1.725	12.321	48.949
4	1.141	8.153	59.469	1.141	8.153	59.469	1.473	10.519	59.469
5	.885	6.318	65.787						

TABLE 11: THE NEWDESCRIPTORS OF BRAND BEHAVIOUR

	Component			
	Self esteem	Identification	Confidence	Family
Differentiation and Prestige (alpha 0.769)				
I am extremely happy if I use brands that are different from my friends	.831			
I like brands that make me different from the others	.755			
I feel proud if I use prestigious brands	.725			
Prestigious brands enhance my personality	.571			
I like buying trendy brand names	.533			
Identification (alpha 0.721)				
I do not care about brand. The important thing is, the product suits my taste		.786		
My brand of choice must reflect my personality		.751		
Confidence and familiar (alpha 0.686)				
I like to buy a brand that I trust its performance			.806	
I like to buy brands that I am familiar with			.796	
I buy brands that I can depend on			.755	
I will always buy brands that I am used to			.750	
Family (alpha 0.560)				
I will buy the brands chosen by my siblings				.790
I buy brands that my parents suggest.				.785

## Discussion and Conclusion

This paper takes a look at two dimensions of brand behavior – brand awareness and brand acceptance in the context of the footwear industry with Malaysian teenagers as the samples. The aims are to describe and compare the awareness and acceptance levels towards international and local footwear brands as well as to establish the factors that significantly affect these two brands behavior. This study has uncovered and confirmed several issues found very much relevant in any brand study.

First, Malaysian teenagers, like many other their counterparts all around the world associate local brands with low image and international brands with high image. Nike got an overwhelming vote in brand awareness and acceptance. As image building is not something that can be created overnight, this outcome signals a choppy time ahead for local producers. Second, brand awareness and brand acceptance is positively correlated and the majority

of Malaysian teenagers included Nike in their consideration set and inspired to own Nike and would own Nike if they can afford. In the long run, this trend would spell danger to local producers who are reluctant to invest in brand building. This outcome does show that price matters in deciding the total package of brand value but it is the weakest dimension in brand value. Third, the teenagers ranked internally driven factors as the most important dimensions starting with 'confidence' to be followed by 'identification' and 'familiarity'. Factors associated with socialization such as 'Prestige' and 'Differentiation', however, were of less importance and 'family' became the least important factor. Finally, 'prestige' is very much associated with race and serves to confirm that brands act as social tools for consumers to communicate with the significant others (Leigh & Gabel (1995).

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# **Development of Direct Marketing in Slovakia as an Incentive for Competitive Advantage**

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## **Abstract**

The paper focuses on current trends in direct marketing (DM) and highlights selected aspects of direct marketing and its utilization in Slovak Republic. It describes the role and importance of direct marketing, discusses also the nature of DM and puts the stress on the emergence of the concept of integrated direct marketing, which involves the aim of a greater synergy. Any organization should be in touch with its customers and to find the best way of doing this and to be able to differentiate its products on issues other than price and quality. This approach can be considered as an incentive for a competitive advantage, especially under the stronger competition fight. Marketing communications and direct marketing has an important role to play in providing this advantage. The main objective of direct marketing on the beginning of this century is not only to “cultivate” customers and to “create” loyal customers. This objective should be enlarged by additional adjective “committed”. Development of direct marketing can be therefore considered as a stimulus for further growth; it is able to provide a competitive advantage to an organization.

## **Introduction**

Direct marketing itself is considered as a specific approach of a company to existing and/or potential customers, based on creation of long-term relationship. DM offers to organizations a lot of advantages, which should be exploited. From the marketing-oriented organizations point of view marketers have to improve their marketing strategies and find new approaches how to satisfy present and potential customers. In this way, direct marketing is a capable and valuable marketing tool. But, in contrary to this statement, it is also possible to see some weaknesses of DM. As Philip Kotler said on marketing seminar in Prague (Marketing in the New Economy, Prague: March 25, 2002), “not all customers want a close relationship with you. Actually it is not in the customer’s interest to be loyal. Then, not all customers are equally profitable. Sometimes 20% of the best customers account for 80% of the company’s profits. A company must therefore find a way to grade the customers by profitability and allocate more proactive and defensive attention to the more profitable customers. It is important to be a partner with your employees, customers, suppliers, and distributors for co-prosperity and to manage your customer relationships through integrated database marketing. Treat customers differently and appropriately and build your brands through performance, not promotion”. In this way the importance of DM, which is based on creation of long-term relationship and on “permission” is continuously enlarging.

## **Importance of Direct Marketing**

Thanks to the single market also Slovak companies can sell and/or buy goods and offer services in any country of the European Union just as easily as if they were trading on their domestic market. It seems to be very interesting how transitional countries are able to follow an on-going process of “europeanization” and how companies of the Middle and Eastern Europe will be efficient under stronger competition. An emerging economy, such as the Slovak Republic, faces considerable competition from the ever-growing European Union. During the last decade Slovakia was trying (and still is trying) to find its place in new market conditions. In an increasingly global economy, success of any organization will very much depend on understanding the needs of customers. Production has moved away from standard goods to individualized goods for individual customers. Companies are demanded to produce goods and services of a high quality. There is, in addition, very little price differentiation amongst modern day goods and services. Organizations need to be able to differentiate their goods and services on issues other than price and quality. Consequently means by which it can defend itself from the competition and facilitate growth must be

welcomed. In this way, marketing communications and its sub-set Direct Marketing have an important role to play in providing this advantage.

For a growing number of Slovak organizations direct marketing gradually is becoming a fully valuable marketing communication and distribution tool. Direct marketing is utilised by organizations, which are continuously planning and implementing DM campaigns; but also by organizations, which are using some of direct marketing tools occasionally and unconsciously. Direct marketing is a suitable marketing tool not only for profit-oriented companies. DM is utilised by non-profit organizations too (organizations of public sector and private organizations of the third sector, e.g. associations, communities, foundations, political parties, churches, public utility services, etc.). Non-profit organizations are using direct marketing for fundraising activities in particular.

The growth of importance of DM in Slovakia is visible also on activity of The Association of Direct Marketing (ADiMa). In June 2004 ADiMa increased the number of its members from 4 to 12 and constituted new authorities. New members of ADiMa established committees for educational activities, legal environment monitoring, multinational communication and promotion. ADiMa would like to make its activities more effective and dynamic through these committees. This year ADiMa is planning to organize a conference on customer relationship building through direct marketing activities. The Association of Direct Marketing in Slovakia (established in 1997, the key aim of ADiMa is to support the growth and using of direct marketing in practice and to support positive attitudes forward DM in public audience; ADiMa also has constituted The Code of Ethical Principles and has started to create “the Robinson’s List”) published the economic results of its members from the years 2000, 2001, 2002 2003 and 2004 and it recorded (compared to the previous year) nearly a 30% increase in DM. It is a significant signal that DM in Slovakia is growing and it has strong potential to grow further. But it is remarkable that potential of DM in Slovakia is still not exploited.

Development of DM in Slovak conditions is based on gradual and permanent evolution. It is evident that direct marketing in practice was used for a long time before developing of theoretical background and principles. Its development is in strong correspondence with development of new communication and distribution technologies and with evolving business environment. The main reason why to use DM in practise is cost management. Utilisation of DM is bringing for organization positive economic benefits. They can be demonstrated by reducing of acquisition costs for a new customer; increasing of trading volumes; increasing of a customer life time value; reducing of inventories costs; increasing of the sales management process efficiency.

Utilisations of marketing communications and its sub-set direct marketing vary from company to company. It depends mainly on its inner potential – managerial, financial, personnel and on practical skills and knowledge. It is necessary to evaluate the advantages and the disadvantages of DM and implement them into business. DM could be a competitive tool in an increasingly global economy, when the success of any organization will very much depend on understanding the needs of customers. DM offers to organizations also a wide range of innovations, in fact it is a tailor made marketing.

The importance of DM will be permanently increasing because of stronger competitive environment, new distribution and communication channels, identifying of specific, individual wants and needs of existing and potential customers. “Individuality” of DM relies on its main features – transparency, measurability, flexibility, and variability. DM can be considered as a powerful weapon both of defensive and offensive marketing especially on the market, which is continuously becoming more and more opened and is influenced by process of globalisation. A lot of organizations will gradually change marketing thoughts and recognise that customer is not only source of an immediate profit, but also the source of long-lasting stability on the market. Customers and needs of customers are crucial terms in marketing conception. Customers are deciding about an organization success. Also customers select the tools of marketing communication that have gained their attention. Relationships between a company and its customers rely mostly on customers’ own volition. Therefore here is a wide area for DM approach. This approach is supported by development of new distribution, communication and computer technology. Former interpretation of direct marketing was putting the stress on direct sales, DM was considered only as a distribution tool. But now, also in Slovakia, direct marketing is considered as relevant tool of marketing communication. The future of direct marketing is on its complete implementing into marketing programmes and strategies. Its further development is enhanced by integrated database and integrated direct marketing, and of course with integrated marketing. Managing the customer base means that the firm has at least some kind of direct knowledge of how satisfied its customers are.

Instead of thinking in anonymous numbers as Grönroos (1994, 12) said, or market share, management thinks in terms of people with personal reactions and opinions.

## **Current Position of Direct Marketing in Slovakia and Conditions for Further Development**

Further development of direct marketing in Slovakia will depend on various factors. One of the most important factors is legal environment. Permanent changes in legal environment cannot positively stimulate usage of DM in practice. But if the area for non-ethical and wasting utilisation of direct marketing will be opened, no one will accept any of DM tools and techniques. Customers will refuse this approach. Social responsibility of companies that are participating on DM business is enormous. Therefore ethical limits must be “welcomed”. Slovaks protect their privacy and organizations should plan and implement marketing strategies carefully with the stress on “permission” and on incorporation of potential or existing customers to the marketing planning process. Otherwise negative attitudes to direct marketing will be increasing.

Purpose of marketing communication is not in disturbing to the target audience. If proliferation of advertising is noticeable, organizations should find another possibilities how to communicate messages and to influence potential and/or existing customers. In this point is good to start with discussion about the nature of direct marketing and to focus on the emergence of the concept of integrated marketing communications. Integrated marketing communication involves the aim of achieving a greater synergy. There is much more than couple of good reasons, why to use direct marketing in practise. According to Kotler (2003, 621), although direct and online marketing are booming, a large number of companies still relegate them to minor roles in their communication/promotion mix. Advertising and sales promotion departments receive most of the communication dollars and jealously guard their budgets. It is very similar in Slovakia. Advertising is still winning.

Direct marketing has a strong potential of further development. But it depends only on organizations, if they will use it. It depends on their communication strategies, financial sources, and skills and will of employees and also on external factors. It is important to combine number of marketing tools to create and cultivate loyal and profitable customers. Direct marketing is one of them. Media explosion offers to enlarge number of organizations to sell products to customers directly, without intermediaries. New media refills traditional media, e.g. fax, e-mail, Internet, mobile phones. They are suitable for individual, direct and interactive communication between an organization and customers. They are suitable both to acquisition of new customers and retention of existing customers. Direct media allow specific targeting and improve offer specification.

In mass marketing the seller engages in the mass production, mass distribution, and mass promotion of one product for all buyers. But the proliferation of advertising media and distribution channels is making it difficult and increasingly expensive to reach a mass audience (Kotler 2003). How to be more productive? How acquire, keep and enlarge number of customers? One of possible answers is to adopt some key features of direct marketing into the practice of struggle companies. A new approach to customers is supplying a traditional marketing conception. This approach is based on individualization in relation organization – customer(s). DM has reached a new level of its development – the level of interactive marketing.

Occasional utilization of DM tools is being replaced by continuous utilization. DM is accepted by many companies and by customers, too. DM activities have not been utilized intuitively and in short-terms. Appropriate DM activities and exploitation of particular techniques of DM should always bring profit and satisfaction to the company and must respect needs of customers. On the other hand the vast usage of DM could negatively influence consumer attitudes. DM is particularly powerful when it is applied to integrate marketing programmes that incorporate multiple sales channels and a wide range of marketing communications. If direct marketing is carefully planned and implemented, it is extremely promising marketing component. According to Welford and Prescott (1996, 295) competing firms need to find innovative ways of promoting products to their customers. This may either be achieved through innovative advertising campaigns, which capture the imagination of the customer, or through innovative means of advertising, which give the firm a differential edge over other industry players. In general, direct marketing in Slovakia appears as an extremely promising segment of marketing communications.

## Conclusions

It is more than visible that new forms of marketing communication are replacing traditional advertising and communication media. In the case of DM there is a wide range of new mass-communication media. Interactive marketing and m-marketing (especially SMSmarketing and MMSmarketing) are representing current trends in direct marketing also in Slovakia. The Slovak DM market is still opened for specializing agencies although competition in this area is strong. Direct marketing could be used very effectively in Slovakia but it is difficult to predict its future use. The potential of direct marketing in Slovakia will be only fully exploited.

Most people living in developed countries come across DM daily – sometimes they become very annoyed. Some businesses in Slovakia utilising DM do not care about privacy and guidelines. Ethical business behaviour has still not been intensively developed or maintained. These organisations must be taught how to respect individual customer privacy and to be ethically responsible. It is important to realize that DM is a powerful “marketing weapon” only if it is applied to integrate marketing programmes. DM could be used very effectively in Slovakia but it is difficult to predict its future use. It is up to marketers to evaluate the advantages and the disadvantages of DM and implement them into business. DM has reached a new level of its development – the level of interactive marketing. In Slovakia both individual and business customers have observed a large number of companies involved in DM. Whether organisations take advantage of the rapidly expanding e-commerce, emerging new media and the possibility of global one-to-one marketing stimulus will be influenced by the economy of the country. According to the thoughts of father-founder of contemporary direct marketing Lester Wunderman (2004), it is also remarkable, that DM must be considered as a strategic marketing weapon. In this way direct marketing represents a real incentive for a competitive advantage for companies under stronger competition.

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# Gender Differences in Locus of Control and Social Influence: A Comparison between East - West Purchasing Behavior

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## Abstract

This study focuses on the potential differences in consumer behavior in a multicultural setting. Of particular interest, the relationship between people's orientation toward locus of control and the amount of social influences that occurs in purchasing decisions. The locus of control construct has long been recognized as a factor capable of explaining important 'drives' of consumer decision making. The results show that overall, men are relatively more internally oriented than women; and as a consequence men are less socially influenced in buying decisions than their counterpart. Furthermore, regardless of gender, respondents from East Asian collectivist countries (namely Thailand and Singapore) exhibit more external locus of control than respondents from typical individualist countries (Australia and America). In addition, the author found that Asian men and women are more responsive to social influence in a hypothetical buying situation than that of their Western counterparts. Managerial implications are briefly discussed and direction of future research is recommended.

## Introduction

The sources that determine consumer purchasing decisions are numerous: personal, biological, or social setting. The relative impact of these sources will vary based on several factors, some highly intimate to the consumer, others related to the product/service and the nature of buying situation. Since marketing mix should be responsive to the nature and impact of these influences, international marketers should gain more insights on the similarities and differences that exist across their markets. Accordingly, their marketing strategy and tactics will have to be adapted and integrated to increase the feasibility of the marketing plan.

Respondents from four countries are examined to measure their orientation to locus of control. Two sets of respondents are citizens of Asian countries (Singapore and Thailand), while the other two are of Western countries (Australia and USA). The four main hypotheses developed are: (1) gender difference in orientation to locus of control; (2) gender difference in level of social influence in purchasing decision; (3) the nature of differences in the level of external/internal locus of control to characterize the four countries; and (4) differences that exist in the level of social influence in the buying decision of the people across these four countries.

### Background and Theoretical Framework

#### Sex Differences

Research on gender differences began to appear in 1960, with the work predominantly proposing that males and females differ in the extent to which they develop self-concepts that are separated from or connected with others (Markus and Kitayama 1991). These studies found that the male agentic role was characterized by concern for the self, while the female communal role typically embraced concern for both the self and others. In the same line of this research, Meyers-Levy (1988) determined that because of their attention to both self and others, females are expected to respond favorably to both agentic and communal advertising appeals. Men, on the other hand, due to their agentic role, do not incorporate communal concerns.

More recent social researchers, however, have recognized the importance that cultural traditions assigned to dominance and assertiveness by males, and submission and passivity by females, may significantly contribute to observed sex differences. As an example, self-concept research moved from investigation of gender schematicity toward a concept of self as either 'separate' from or 'connected' with others (e.g., Cross and Markus 1993; Josephs and Tafari 1992). The relationship between sex and self-concept also appears to vary with social class, religion and ethnicity (e.g., Collins 1997; Crawford 1997).

### **Locus of Control**

As early as 1954, Rotter had suggested that the probability of a behavior satisfying a need is dependent on two variables, namely the expectation of a specific reinforcement from this behavior and the value that the individual attributes to this reinforcement. Later, Rotter (1966) described the concept of “internal or external reinforcement control”, also called locus of control (LOC). An external control is when reinforcement is perceived by the subjects as following some action of his or her own but not being entirely contingent upon his/her action. It is typically perceived as the result of luck, chance, or fate; as under the control of powerful others. An internal control, however, reflects a person’s perception that the event is contingent upon his/her own behavior or his/her own relatively permanent characteristics. Therefore, those with an internal versus external LOC hold different beliefs about the extent to which their actions can have an affect on the outcomes in their lives. Years later, Burns (1984) suggested that LOC is associated with the general attitude that one has toward oneself, one’s behavior and one’s capacity to influence events. Social science research has also reinforced these general definitions of internals and externals across many domains (see, for instance, Spector 1986; Strickland 1989; Parker 1989; Lefcourt 1991; Kren 1992; and Marks 1998).

### **Locus of Control in Marketing Research**

LOC research in marketing context has primarily been concerned with predicting behavior differences between the externals and internals in purchasing related situations. The concept of locus of control has also been applied in the areas of environmental marketing and consumer use of credit. LOC studies have been conducted on the relationships between general psychological constructs and environmental (‘green’) behavior (Berger and Corbin 1992; Biswas et al. 2000; Dietz, Stern, and Guagnano 1998), pinpointing the antecedents of postpurchase/postconsumption behavior (Alwitt and Pitts 1996; Bagozzi and Dabholkar 1994; Shrum, Mccarty, and Lowrey 1995), and investigating the influence of individualism, collectivism, and LOC on environmental beliefs and behavior (McCarty and Shrum 2001). Consistent with general LOC findings, externals exhibit a reluctance to make sound decisions after exposure to environmental events. In the area of consumer credit, Tokunga (1993) found that internals are more likely to use consumer credit successfully than externals. Lunt and Livingston (1991, 1992) reported that internals are more regular savers and have fewer problems with personal debts. Both Dessart and Kuylen (1986), and Rundinick and Deni (1980) described internals as those who are less likely to experience financial difficulties and to act impulsively, were more likely to plan ahead, to act according to a plan and to be well informed. Attribution theory, which is integrally associated with LOC, has also received considerable attention in the marketing literature (see, for instance, Mizerski, Golden, and Kernon 1979; Weiner 2000).

### **Limitations of a Generalized LOC Construct**

Despite the widespread use of LOC as an explanatory tool, the construct and its measures have raised certain concerns among researchers. LOC has been found most useful when tailored to predict behavior in specific settings (Rotter 1990; Lefcourt 1982; Munro 1979; Furnham & Steele 1993; and Marshall 1991). Specific context measures of LOC have been used successfully to predict behaviors pertinent to health (Lau and Ware 1981; Wallston & Wallston 1981), work (Spector 1961, 1988), management (Hodgkinson 1992), and consumer behavior (Busseri, Lefcourt & Ketton 1998). These studies have supported the idea that the predictive powers of LOC measures are better enhanced when the assessments of expectancies are tailored to particular social arenas. The present study therefore employs a consumer behavior-focused measure of LOC developed by Busseri and Ketton (1997).

### **Cross-National Differences in LOC**

To date, no formal LOC cross-national research has been conducted to study the impact of LOC on consumer’s purchasing decisions. When Triandis (1984) examined cultural differences in causal reasoning, members of independent cultures judge the individual to be the responsible agent of action, while members of interdependent cultures judge situation or social groups to be the directors of action (Holland et. al 1986; Ross 1977). People with an independent self tend to recognize their surroundings in regard to their components (Peng & Nisbett 1999), focus on his/her dispositions to the exclusion of the other components in an environment (Morris & Peng 1994; Shweder & Bourne 1984), and attribute power to the collectives (Menon et. al 1999). In short, people in interdependent cultures (e.g., collectivist/interdependence East Asians) perceive group collectives as the determinants of their behavior, whereas people in independent cultures (i.e., individualist Australians or Americans) perceive individuals as causal agents of their behavior.

### **LOC and Social Influence**

Although social influence in the buying decision is widely recognized to vary across cultures (Redding 1982; Fisher and Ackerman 1998), the majority of LOC research has focused on behavioral attributions and predictions relating to individuals' perceptions of their control over the environment in which they operate. The relationship between LOC and susceptibility to social influence has received less attention, but has been addressed conceptually in the literature. Lefcourt (1982) stated that in regards to purchasing decisions, internals are more resistant to social influences while externals are more attentive and yielding to social cues. These observations are consistent with findings that indicate internals pay more attention to information pertinent to purchasing outcomes, exhibit more purposive decision-making, and have more confidence in their ability to succeed at important tasks (Lefcourt and Davidson-Katz 1991).

### **General Hypotheses**

Based on the above discussion, the present study is designed to test the following hypotheses: (1) overall, men are expected to be more internally oriented than women, thus (2) men are less subject to social influence than women; (3) men and women in collectivist countries are expected to be characterized by more external LOC traits than men and women in individualist countries; and (4) men and women in collectivist countries are expected to be more responsive to social influence in their buying decisions than are their counterparts in individualist nations.

### **Method**

#### **Selection of Countries**

Since there have not been prior studies that classify national cultures as being characterized by internal or external LOC, the current study employed a surrogate indicator derived from the literature. Hofstede (1980) classified countries according to the levels of individualism/collectivism exhibited by their people. As noted above, the concept of individualism/collectivism was attempted to be linked with locus of control. Specifically, individualists tend to have an internal LOC, while collectivists an external LOC. Based on Hofstede's (1980) findings, two individualist countries (Australia and USA) and two collectivist countries (Thailand and Singapore) were selected for this study. These countries were the extremes on Hofstede's individualist/collectivist scale, with Australia and USA being the two most individualist, and Thailand and Singapore among the most collectivist.

#### **Research Instrument and Sample**

The instrument comprised a 14 item (5-point Likert scale) LOC scale (Busseri and Kerton 1997), a buying scenario ("*You need to buy some new sneakers. You are considering two models, one that you like, and another that is liked by the person who is with you. How likely would you be to purchase the sneakers that the other person likes if that person is*": *mother/father, close friend, boy/girlfriend, salesperson*), and classification questions. The LOC measure fits the requirements of the research in two major respect. First, it focused specifically on consumer-related LOC issues. Secondly, the scale items addressed several dimensions of LOC, one of which was social influence, the focus of the present study. After reading the purchase situation scenario, respondents were asked the likelihood (5-point Likert scale from: 1 = very likely to 5 = very unlikely) that they would be influenced by the other person's opinion.

Questionnaires were pre-tested in each of the countries. English was employed in the Australian, USA, and Singaporean questionnaires, since that is the official language of those nations. The Thai questionnaire was translated and back-translated using two Thais proficient in English. To test the psychometric equivalence of these measures, the author compared the reliability statistics between the countries and checked the variances for floor or ceiling effects (Van de Vijver and Leung 1997). Questionnaires were administered in classroom settings. The study employed samples of university students from the four countries, thus controlling for age, occupational and social class factors. After elimination of respondents for whom there was missing data, the sample consisted of 770 respondents: 243 Thais, 124 Singaporeans, 205 Australians, and 198 Americans.

### Analysis

The data were first subjected to principal components factor analysis with varimax rotation to determine validity and to potentially isolate the social influence component of LOC. Relevant factors and total scale results were then subject to MANOVA and Scheffe tests across the four countries to determine whether: (1) Australian and USA respondents reported to be more ‘internal’ than Thai and Singaporean respondents; and (2) Australian and USA respondents reported less social influence in their buying decisions than Thai and Singaporean respondents.

### Findings

Three clean factors emerged from the analysis of the LOC scale accounting for 62.5% of the total variance. Cronbach’s alpha ranged from 0.59 to 0.70 meeting (or very close to) the reliability test for exploratory/human behavior research (Nunnally and Bernstein 1994; Robinson et al. 1991). Of particular interest to the present study is that one of the factors contained items that are related to the level of social influence to which the person is susceptible in the buying decision. This factor, labeled *Susceptibility*, also explained the greatest amount of variance. Given the study’s concentration on social influence and LOC, the focus of the subsequent analysis is on results associated with the LOC scale as a whole (LOC Total), and the results of the Susceptibility factor.

To test the hypothesis across nations, MANOVA was first employed to determine if differences exist across the four nations and the three LOC factors, plus the sum of all LOC items. Significant main effects were found (Wilk’s lambda,  $f = 15.7$ , sig. < .000), indicating the existence of pronounced differences across the four countries and between individual countries. Table 1 shows the means for the susceptibility to social influence and the level of the social influences between men and women in each country. The findings are consistent with hypotheses (1 and 2): Men in each country have means that are significantly lower than those of women for the LOC scale, furthermore, with an exception of the Thai men, men from each country are shown to have means that are significantly lower than women on the scope of social influence.

TABLE 1: LOCUS OF CONTROL & SOCIAL INFLUENCE: COMPARISON BETWEEN MEN & WOMEN

Country	Means of Locus of Control		Means of Social Influence	
	Men (std. dev.)	Women (std. dev.)	Men (std. dev.)	Women (std. dev.)
Thailand	2.71 <sup>a</sup> (0.40)	2.83 <sup>b</sup> (0.44)	4.74 <sup>a</sup> (1.12)	4.38 <sup>b</sup> (0.91)
Singapore	2.44 <sup>a</sup> (0.31)	2.70 <sup>b</sup> (0.51)	4.18 <sup>a</sup> (0.94)	4.27 <sup>b</sup> (1.28)
Australia	2.43 <sup>a</sup> (0.49)	2.51 <sup>b</sup> (0.48)	4.00 <sup>a</sup> (1.09)	4.15 <sup>b</sup> (1.06)
USA	2.57 <sup>a</sup> (0.68)	2.68 <sup>b</sup> (0.65)	3.37 <sup>a</sup> (1.21)	3.67 <sup>b</sup> (1.18)
All countries	2.53 <sup>a</sup> (0.43)	2.67 <sup>b</sup> (0.50)	4.74 <sup>a</sup> (1.12)	4.38 <sup>b</sup> (0.91)

Note: Using a Scheffe test, means for ‘a’ are significantly different from ‘b’, but letters that are the same (e.g., ‘a’ and ‘a’) are not statistically different from one another. Means of locus of control and means of social influence are two separate measurements.

Table 2 shows the results in the second hypotheses largely confirm that men and women in collectivist countries are expected to be characterized by more external LOC traits than men and women in individualist countries. According to this finding, regardless of genders, Thai and Singaporean respondents have means that are significantly higher than those of Australia and USA, indicating that the former are more externally oriented than the latter. Both men and women in Thailand and Singapore are not significantly different from each other on the Susceptibility dimension and marginally different on the LOC total dimension. USA is significantly more internal than Australia on both the susceptibility and LOC total.

TABLE 2: LOCUS OF CONTROL – COMPARISON OF MEANS ACROSS COUNTRIES

Country	Susceptibility		All LOC	
	Mean	St.Dev.	Mean	St.Dev.
Thailand	3.26 <sup>a</sup>	0.57	2.77 <sup>a</sup>	0.42
Singapore	3.12 <sup>a</sup>	0.57	2.63 <sup>a</sup>	0.44
Australia	2.86 <sup>b</sup>	0.67	2.49 <sup>b</sup>	0.48
USA	2.64 <sup>c</sup>	0.66	2.34 <sup>c</sup>	0.51

*Note: Using a Scheffe test, means for 'a' are significantly different from 'b' and 'c'; mean for 'b' are significantly different from 'c', but letters that are the same (e.g., 'a' and 'a') are not statistically different from one another.*

The third hypothesis related to differences in the impact of social influence reported by Thais and Singaporeans versus Australians and Americans. In this case, the dependent variables were the reported levels of social influence related to respondents: parents, friends, boy/girlfriends, and salespeople. The independent variables were the four countries being investigated. MANOVA main effects were significant ( $F = 13.4, p < .00$ ) again indicating significance across the countries and influence factors. The Scheffe results presented in Table 3 indicates a mixed pattern of results that indicate a qualified acceptance of the hypothesis. In all cases (except boy/girlfriend influence), Thai men and women report the highest level of influence and as hypothesized, higher than the Australians and Americans. Similarly, in all cases except boy/girlfriend influence, the American men and women participated in the survey had significantly lower mean influence than the men and women of the other three countries. The Singaporean men and women reported less parental and salesperson influence than the Thais.

TABLE 3: SOURCES OF SOCIAL INFLUENCE: COMPARISON ACROSS COUNTRIES

Country	Parents		Friends		B/Gfriend		Salesperson	
	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Thailand	4.66 <sup>a</sup>	1.54	4.96 <sup>a</sup>	1.24	4.98	1.43	3.67 <sup>a</sup>	1.57
Singapore	3.70 <sup>b</sup>	1.75	4.64 <sup>c</sup>	1.37	5.11	1.52	3.26 <sup>c</sup>	1.41
Australia	3.50 <sup>c</sup>	1.71	4.57 <sup>c</sup>	1.29	5.01	1.39	3.12 <sup>c</sup>	1.53
USA	3.00 <sup>d</sup>	1.61	4.00 <sup>d</sup>	1.57	4.70	1.62	2.54 <sup>d</sup>	1.43

*Note1: Employing a Scheffe test, means for 'a' are significantly different from 'b', 'c', and 'd'; mean for 'b' are significantly different from 'c'; means for 'c' and 'e' significantly different from 'd'*  
*Note 2: Social influence was measured by 7 point scale with: 1= very likely to purchase & 7= very unlikely to purchase.*

## Discussion

The findings provide evidence that largely confirms the hypotheses, as well as raising questions that invite further research. In terms of LOC, the findings indicate that overall, men are more internally oriented than women; and men are less socially influenced in purchasing decisions than their counterpart. At a more micro-level of investigation, the findings clearly indicated that men and women from the individualist nations are more internally oriented than those from collectivist nation.

The findings are more nuanced, however, when the results of social influences are examined. Although, overall the results supports the hypothesis that Asians (means = 2.72, std. = 0.43) are relatively more externally oriented than Westerners (means 2.41, std. = 0.50); and that Asians (means = 4.44, std. = 1.08) are relatively more influenced by social pressures than their counterparts (means = 3.81, std. = 1.16). One variable, boy/girlfriend influence showed no differences across the nations. This finding could be explained by the likelihood that many

sample members do not have a “legitimate” boy/girlfriend, given their age of 19-23 years. Respondents were thus responded to a hypothetical situation with regards to a person with whom they probably had such a hypothetical relationship. With respect to the other sources of social influence, Thailand and USA follow the expected patterns, but Singapore and Australia clearly do not. No significant differences in social influence levels were found between the latter two countries, despite the fact that the findings associated with the second hypothesis clearly indicated that *Singaporean men and women are relatively more externally oriented and Australian men and women.*

The anomalies in social influence results indicate that LOC may have some limitations when applied in an international setting when trying to predict the levels of social influence to which consumers are subjected. Other factors may intervene to counter the effects that LOC orientation has on social influence in consumer decision making. One possibility may relate to level of economic development. Singapore and Australia are quite similar in terms of per capita GDP, suggesting that consumers in the two countries have similar purchasing power, which could impact their perceived ‘independence’ in the buying decision. This explanation, as presented here, is strictly correlational and cannot be taken as definitive. It appears, though, that the relationship between LOC and social influence is a complex one in a cross-national context, and should be the subject of further research.

### **Managerial Implications**

This research has provided marketing insights for both firms that engage in international marketing and for firms that operate domestically. Internationally, the findings show that significant differences exist between Asian and Western consumers in regard to locus of control orientation. Domestically, the findings also demonstrate varying levels of susceptibility to social influences and behavioral differences between men and women.

Knowing the significant differences of Asian and Western customers, marketers would have to formulate their strategies accordingly, particularly by integrating the differences between the purchasing behavior of men and women. Moreover, since this research has established empirical evidence that consumers across nations have different orientation to locus of control and social influence, marketers would also have to develop their strategies and tactics, keeping cultural variations in mind.

### **References**

Contact the Author for a list of references

# **Implications from Social and Business Studies to Demand Analysis for Hi-Tech Products Used in Business Practice**

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## **Abstract**

**This paper presents a link connecting the fields of social science and business studies in one common purpose: to refine the current approach to demand analysis. The focus is on hi-tech products, which can be used in business practices. Based on previous studies, a thesis about individuals belonging to a group of the early adopters of the products is developed. The paper is also an illustration of empirical research, using the thesis to investigate individuals from two different countries and to identify demand curves related to the hi-tech markets.**

## **Introduction**

Hi-tech products, which are new entrants in many product categories typically experience a short life cycle. A crucial period that often decides the success or failure of the product is its early sales stage. The product needs to be adopted by consumers who would pass on positive word-of-mouth to the rest of the market [7]. Such individuals are called early adopters and the examination of their preferences is important. However, the early adopters differ according to particular products and therefore the group definition that would allow for tractable econometric analysis is difficult. An elaboration on literature from the social science and business fields in the first part of this paper leads to a thesis about the individuals belonging to the early adopter group of hi-tech products which can be used in business practice.

In the second place, empirical part of this paper illustrates application of the thesis to analyze demand for hi-tech products used in managerial practice. Subjects are from two different countries, Japan and the Czech Republic. Mainstream of the comparative research on consumer behavior toward new products applies aggregate data and Bass model [1]. Notwithstanding revealing results of the studies the projects have limits when it comes to practical suggestions for marketing activities, such as pricing and market segmentation. That is also a lack of past studies that examined managerial hi-tech demand via disaggregate data analysis. The researchers did not provide conclusions in a form of price-demand figures, which are the convenient tool for hi-tech supplier's decisions. Applying the thesis about the individuals from the early adopter group, the issue is addressed in this paper.

## **Conceptual Part**

### **New Product and Its Early Adopters**

The pressure on the supply side of the market is becoming enormous, owing especially to the enhancement of technologies, less government regulations, and easier access to education and capital. For a firm to stay competitive it must deliver good value for consumers. In many cases that means firms must devote sufficient resources to innovation process and bring new products to the market. Despite the enormous efforts of companies and massive inflow of new products to market, Urban and Hauser in [12] report an 35% failure of new products entering the market. In some cases the companies' strategy is to bring many new products to the market and eventually some products are established there, with the help of marketing instruments. Nevertheless such an approach is not sustainable in the case of new products that incur large investments. In that case, careful market research is necessary, according to which the new product can be developed and appropriate marketing support aimed at particular consumer groups.

Kotler presents in [7] a historical view on the audience, a target of the support activities. In the past,

companies introducing a new product relied on the broadest-possible market appeal without recognition of the market structure and thus differences between consumer groups. The approach has not been very effective and suppliers introducing new product began to aim their marketing efforts toward a group of perceived heavy users. Kotler claims that recently suppliers recognized the importance of early adopters and target the initial distribution and promotion toward them.

The idea of early adopters evolved from research on the diffusion of social innovation [10]. Rogers, who studied the adoption of innovations in various fields, found that the adoption of innovations follow a bell-shaped curve, when plotted over time. On the basis of innovativeness, defined by Rogers as continuous dimension in that individuals adopt a new idea at different times, he categorized people into five distinctive groups: innovators, early adopters, early majority, late majority and laggards. The new product entering the market as well as a new idea in the case of social innovation must be first acquired by group of innovators and early adopters who through positive word-of-mouth help the idea or product to be accepted by majority of society or market respectively [10, 12]. In the following section the research on early adopters and its implication to an approach used in the present research is described.

#### **Early Adopters as the Research Subjects**

The idea of market division according early adopters and a later majority is generally accepted and there is large number of empirical projects (of descriptive character) that focus on the group of early adopters. Hereafter only some of them, related to the hi-tech field, are mentioned since they share the characteristic with the empirical part of this paper.

Chau and Hui describe in [2] adopters of Windows 95. They claim that early adopters tend to be younger males who are opinion leader and have a good technical knowledge (computer experience). In [8], Min and Galle focus on managers and their adoption of e-purchasing. They test the hypothesis that adopters who recognize the managerial benefits of the hi-tech innovations are more likely to adopt it. Their results support the hypothesis. Trodsen in [11] examines CEO's, financial managers and data processing managers from six countries to describe the characteristics of early adopters of open system for computers. In contrast with [10], he reports no difference between early adopters and nonadopters in terms of age or education.

Two notes are essential on the three examples. First, they are characteristic in the sense that the findings of descriptive research typically focus on demand side and ignore supply side factors. However, the supply side factors are key factors for producers as well; those are the factors a company can influence through R&D and marketing activities. Second, results of the projects generally confirm and extend Rogers's essential description of early adopters: early adopters are most probably individuals with the ability to understand and apply complex technical knowledge, they have the greatest degree of opinion leadership and possess substantial financial resources. In examined markets - Japan and Czech Republic, the consumers having relatively high income and possessing good technical knowledge as well as leadership character are naturally searched in managerial positions of industrial companies. The important role of technical knowledge and the use of hi-tech products for business practice give rise to the key requirement for subjects in the empirical part of this study: they must be working in senior managerial positions and their companies need to be part or have close links to the electronics industry since the investigated tangibles are electronic devices. Considering the researched objects (business assistants, car navigators and dictionaries) following quote and findings link to context of early adopters:

*"...first 50,000 users of Palm PDA were on average self-rated computer experts, earning more than \$100,000 a year, nearly all between the ages 15 and 45, and 95% male. Those 50,000 guys became our sales force. They went out and told their colleagues and their neighbors and their friends. They bought it for their friends and their colleagues for Christmas, and that was how the Pilot started taking off." (Yoffie and Kwak, 2001, p.57)*

Study of ITS-Michigan and Michigan State University [6] identifies early adopters and trends of in-car technologies. It claims that initially, buyers of high-end luxury cars were targeted; however these consumers are not typical innovators and early adopters, which resulted in poor market acceptance. The study accentuate that early adopters are business professionals.

Prior to this project, author searched shops offering electronic dictionaries (as a new gadget) in the Czech Republic. The shop assistants asked for characteristics of consumers, who purchase the electronic dictionary said that in 80% cases buyers are managers who need the device for their work.

In the literature we can find only few studies that examine managers' hi-tech choices and use an inferential (compared to descriptive) statistic approach. One study [4] investigated Dutch managers' choice of electronic banking. The study applies a choice probability model and authors claim to examine both supply and demand side factors influencing the use of such an electronic service. However, the supply side is represented by managers' perceptions of marketing variables which are generalized into three categories – intensity of market support, risk reduction of the supplier's activities and the supplier's market positioning. Therefore, the results do not extend to identification of price-demand relationship, the convenient tool for decision making of hi-tech suppliers.

In another research [5], Gatignon and Robertson focused on managers' choice of laptop computers and the estimated results applied both logit and probit models. Authors summarize the supply side variables into two predictors: first, incentives, which indicate marketing activities. Interestingly, a second supply side variable is a vertical coordination. The variable is associated with the higher propensity to consume output from the industry, the consumers belong to (though not only their own production). Gatignon and Robertson also found this variable significant on the 10% level. This finding further supports our idea to investigate companies with links to the electronics industry, of which the examined products are outputs.

There are two other studies [3, 9] that investigate managers' choice of electronic data interchange service and object-oriented programming languages respectively. Though the latter study tests several supply side variables, the overall approach to the researched problem is in both cases like the two studies described above: researchers do not approach the issues with purpose to provide the traditional tool of price-demand figures convenient for marketing decisions. Empirical part of this paper is positioned to fill this gap, where adoption of hi-tech products is investigated with results important for suppliers' marketing (mainly pricing) activities.

## **Empirical Part**

### **Respondents**

Each country sample contains 40 respondents. Regarding their socio-economic status, the major requirement is that the respondent is a CEO of company, related to the electronics industry. It follows that the respondent would have good knowledge of technology, have a character of leadership and possess sufficient financial resources to afford expensive product purchases. The size of the companies included in research is restricted to small and middle size since it would be difficult to get in contact with a CEO of large company and subsequently to pursue him to reply to our questionnaire.

In Japan, we obtained a list of small and middle sized companies from the Nagoya Centre for Small and Middle Sized Companies. Respondents are from Nagoya, the 4-th largest city in Japan known mainly for its industrial character, and city close to Nagoya, Gifu (population 500,000). The list contains the name of the company, its address, phone number and the name of its CEO. At the initial stage, companies were contacted by phone and asked whether they would participate in the international survey. They were also briefed about the purpose of the research and the examined products. If they agreed, the questionnaire was sent to them by e-mail. The respondents' companies fall into four groups according to the type of business they provide: software production, business consulting for IT companies, communication service and trading consumer electronics.

In the Czech Republic list of companies from Zlate Stranky was used; it lists firms according to the purpose of its business. Only companies belonging to the electronics industry or with a possible link to the industry were considered. A firm was randomly selected and then information about its suitability for present research (size, etc.) was checked via several internet websites (e.g. the homepage of the company; the website of the Ministry of Justice that provides information about all commercial subjects in the Czech Republic). If found suitable for this research, the company was contacted by phone. The CEO was briefed about the research purpose and asked if he would participate. If he agreed, the questionnaire was sent by mail or e-mail. All companies were from the capital Prague (population app. 1.1 million). Respondents' companies belong to the same four business groups like their Japanese counterparts.

### **Examined Product Categories**

Products from three categories were used for the study: business assistants, car navigators and dictionaries. A view

of supply in the three examined product categories is simplified so that the available choice alternatives become:

1) *Traditional Product*: a good, of which all consumers are well aware; it has been established in the market for a long time. Specifically, traditional products included set of devices (address book, calculator, etc.) in the business assistant category, map and atlas in the car navigator category and paper dictionary in the dictionary category.

2) *Standard Hi-Tech Product*: an electronic device that serves to satisfy the same needs as the traditional product, however thanks to digital technology it has significantly enhanced attributes. Researched products included personal digital assistant (PDA), GPS car navigator and electronic dictionary.

3) *Progressive Hi-Tech*: a high-end extension of a hi-tech product line.

These alternatives were described as a mix of attributes of various levels. The examined individuals were supposed to copy real purchase decisions and make a choice from a set consisting of two or three alternatives. The frame of the decision situation is as follows: the respondent is asked to consider a situation where he needs a product from the examined category. He has researched offers in various shops, ruled out most of the options and makes the final decision from the two or three best alternatives. The respondent is exposed to eight decision situations in each category. It is explicitly stated that the respondent should consider each decision situation separately. The outcome of the decision situation – the consumers' choice of the best alternative is in nature discrete and appropriate model is described in the next section.

#### **Applied Model**

The discrete model applied in this research is multinomial logit. Generally, the multinomial logit (MNL) is convenient, essential start for the utility calculations. A test of the adequacy of the MNL assumption, independent, identically distributed errors, is in this study carried out by McFadden test. Based on the test result, the appropriateness of multinomial logit has been confirmed. Probability of choosing particular alternative is described by following formulae:

$$P_C(i) = \frac{A_i \cdot \exp(V_i)}{\sum_j A_j \cdot \exp(V_j)}$$

where  $P_C(i)$  is the probability of choosing  $i$ -th alternative from choice set  $C$ ;  $j$  is number of all possible alternatives, some of which are available ( $A = 1$ ) in the choice set  $C$ , and some are not available ( $A = 0$ ).  $V_i$ ,  $V_j$  respectively, is systematic part of utility function.

Utility of the  $i$ -th alternative  $U_i$  is considered to be random function, including systematic part  $V_i$  and error  $\varepsilon_i$  (Gumbel distributed).

$$U_i = V_i + \varepsilon_i$$

Generally, systematic utility is modeled as a function of product attributes  $X_i$  and consumer characteristics  $Z$ .

$$V_i = \sum (\beta_i \cdot X_i + \gamma \cdot Z)$$

Greek letters are the estimated parameters. The product attributes used in the utility functions are various product functions and prices. Income category is used as the characteristic of respondent. Following chapter presents results of the demand analysis when all attributes but price are *ceteris paribus*.

#### **Empirical Results**

Fig. 1 bellow illustrates dependence of demand on price estimated for the Czech and Japanese respondents in the business assistant market. The variable price relates to examined prices of personal digital assistant. It is worth noting that simulation of the revenue trend (price times choice probability) in this category would imply maximizing price approximately two times as high in the Japanese market as in the Czech market.

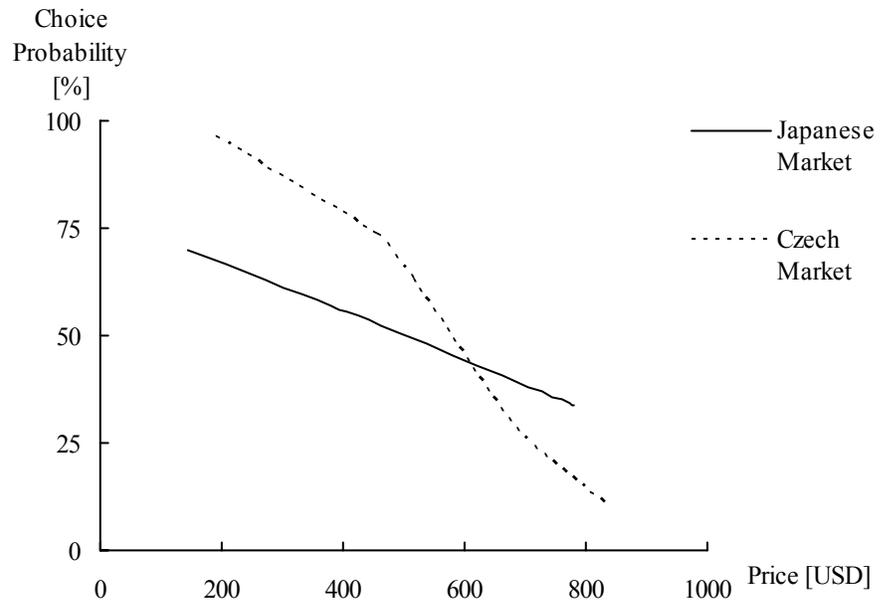


FIG.1: DEMAND CURVES FOR JAPANESE AND CZECH RESPONDENTS IN BUSINESS ASSISTANT CATEGORY

The contrast of demand curves in the examined markets for hi-tech products in the navigator category (Fig. 2) is even larger than in the business assistant category. The revenue maximizing price of GPS car navigator in Japan is approximately three times higher than in the Czech market. Last Fig 3 illustrates a demand curve in the Czech and Japanese market for the electronic dictionaries. The revenue maximizing price is calculated more than twice as high for the Japanese market compared to the Czech market.

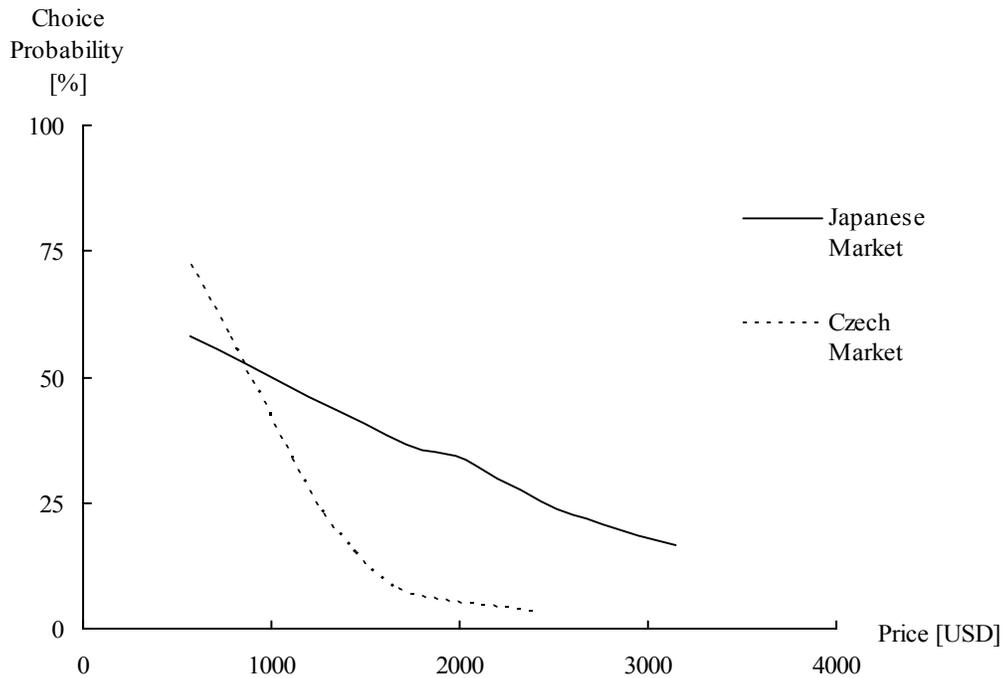


FIG 2. DEMAND CURVES FOR JAPANESE AND CZECH RESPONDENTS IN CAR NAVIGATOR CATEGORY

## Conclusion

For the examination of consumer behavior with implication to pricing and market segmentation, demand analysis with a low aggregated data is necessary. Elaboration on literature in first part of this paper yields a thesis about early adopters of hi-tech devices which can be used in the business practice. Applying the thesis, data on the individual's level concerning choice of the hi-tech products is collected and demand curves are identified via random utility framework. Clear, graphic illustrations show how powerful instrument such demand analysis may be for decision making of hi-tech producers.

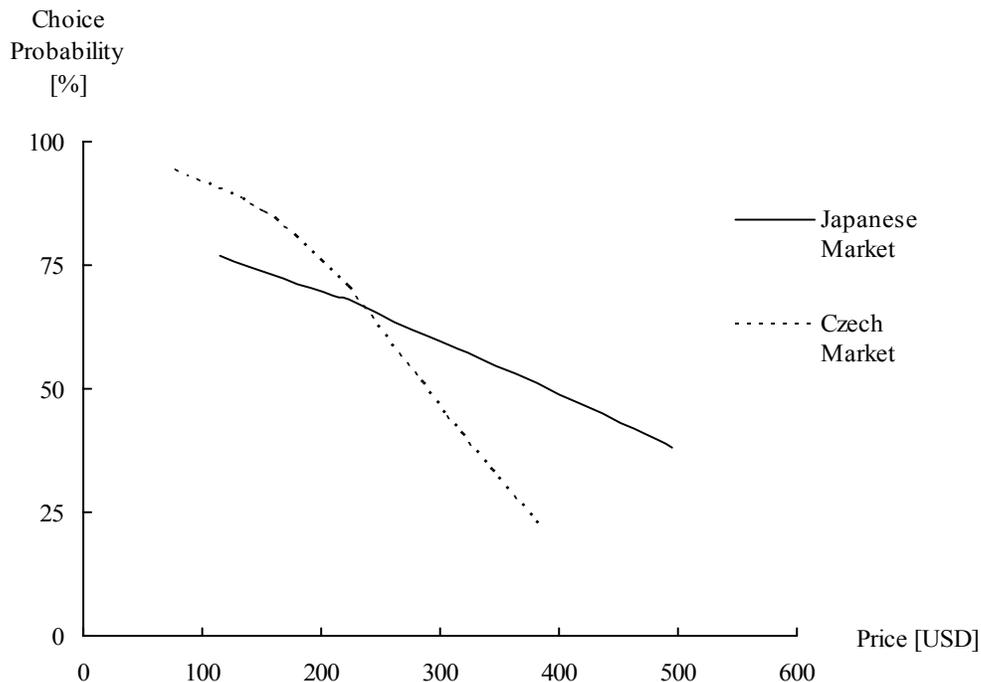


FIG 3. DEMAND CURVES FOR JAPANESE AND CZECH RESPONDENTS IN DICTIONARY CATEGORY

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# Information Privacy and Online Participation: A Field Experiment

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## Abstract

With the increase in information use and exchange for Internet commerce, consumer privacy is now an intense, focused media issue again. In response to pressures from multiple sources (e.g., consumers, privacy advocates and regulators), online firms have begun to make substantial investments in privacy protection mechanisms and changes in information collection practices. However, the extent to which they are effective in assuaging consumers' concerns and encouraging online participation have yet to be empirically validated. In addition, there are some limitations of existing laboratory experiments or surveys used to examine the relationships between online privacy and online participation in that they tend to directly prompt respondents on online privacy issues that may result in inaccurate or inflated responses. This study hence designed and employed a *novel field experiment* to evaluate and calibrate the relative effectiveness of privacy mechanisms (privacy statement and seal) and information collection practices (monetary reward offer and extent of information collection) on actual online participation behavior. Our findings show that privacy statement, monetary reward, and extent of information collection had significant influences on subjects' online participation behavior. Some managerial implications for practice are discussed.

## Introduction

The rapid growth of Internet commerce has spurred a remarkable increase in information use and exchange. Increasingly, firms are collecting and processing consumer information that they have acquired through a wide range of business-to-consumer e-commerce transactions. With the help of Internet tools such as cookies and activity tracking software, and the sharing of customer databases amongst online firms, consumers' personal information is sometimes acquired and used without their prior consent. This has sparked consumers' concern about their online privacy (Esrock and Ferre 1999; Smith et al. 1996). Landmark cases involving Amazon.com, Microsoft and Toysmart.com suffice to show that consumers are perturbed by the improper use and handling of their personal information.<sup>i</sup>

As an answer to consumers' increasing privacy concern, the U.S. Federal Trade Commission (FTC) released a set of fair information practices (FIP) which highlight several core principles for firms to safeguard consumers' information privacy (Federal Trade Commission 1998). Generally, the FTC recommends industry self-regulation as an approach to regulate online privacy. The Online Privacy Alliance (OPA) also recommends that any company that engages in e-commerce should adopt and implement a privacy policy that clearly states what information is being collected, how the information is used, whether third parties have access to the information, and others.

In line with the FTC recommendations, the majority of websites today publish privacy statements to illustrate their information handling practices, which often correspond to the FTC's guidelines. However, such statements are largely informational in nature, and it is very difficult for consumers to verify if the firms actually comply with the guidelines laid down by the FTC.

Consequently, third party enforcement and privacy "seal" programs began emerging to complement this weakness of privacy statements. Many websites acquire third-party privacy seals to certify that they follow the practices listed in their privacy statements to add further assurance.<sup>ii</sup> These third party endorsement programs were being supported by the FTC. For example, on May 23 of 2001, the FTC has granted the TRUSTe Children's Privacy Seal Program "Safe Harbor" status under the Children's Online Privacy Protection Act (COPPA).

Besides assuring consumers' online privacy, many websites offer monetary incentives, such as shopping vouchers, discount coupons, or chances to lucky draws, to consumers who are willing to disclose their personal information. Anecdotal evidence has shown that consumers respond to monetary incentives (Jupiter Media Metrix 2002; Russell 1989). However, exactly how effective these incentives are is a question that perplexes many firms and researchers (e.g., Hann et al. 2002; Milne and Gordon 1993). Are consumers sensitive to a slight change in monetary incentives, or perhaps they only care about the presence of such incentives?<sup>iii</sup> Answers to these questions can help firms perform accurate cost/benefit assessments, and devise appropriate information collection strategies.

Note that both protection and monetary incentive may only serve to encourage consumers to participate in online transactions. Because consumers are concerned about their online privacy, another fundamental factor that may affect their decision is the amount and sensitivity of personal information that is being requested (Hine and Eve 1998; Nowak and Phelps 1997). Previous work has shown that consumers' disclosure decision varies across information types (Phelps et al. 2000). That is, consumers may exhibit heterogeneous responses when a firm asks for different sets of information items (which could vary in length or intimacy). It is thus imperative for firms to find out the response function of consumers in real marketing contexts.

Hence, whether FIP can effectively address consumers' privacy concern and whether monetary incentive and the amount and nature of information collected plays a role in determining online participation are key research issues for many academic researchers and practitioners. While prior empirical research has found that FIP and the ability to control information use may help alleviate consumers' concerns on online privacy (Culnan and Armstrong 1999; Hoffman et al. 1999; Phelps et al. 2000), little has been done to assess the relative impact of FIP, monetary incentive, and the extent of information collection on actual participation decisions.

Moreover, many of these studies employed a survey approach, whereby the respondents were asked to indicate their preferences or behavioral intentions, by answering questions that were framed using hypothetical scenarios. Two weaknesses are inherent in such a methodology. First, as pointed out by Harper and Singleton (2001), directly prompting consumers with questions about online privacy may inadvertently lead to biased responses. When asked to express their opinions, people may tend to inflate their privacy concerns and put more emphasis on protective measures, such as FIP. This, however, may not reflect their true thinking when making disclosure decisions in real life contexts. Second, survey response is not equivalent to, or fully indicative of, actual behavior. When studying controversial issues such as the benefit of online privacy protection, it is useful for researchers to observe the actual behavior of consumers, which is reflective of the consumers' true inclinations. Therefore, the true behavioral effects on online participation when websites implement FIP either through privacy statements or through third party privacy seals have yet to be investigated.

In this study, we designed and conducted a novel field experiment to observe consumer response to online information solicitation. Specifically, we manipulated the experimental conditions of privacy protection, the provision of monetary incentive, and the extent of information collection, to generate multiple data collection scenarios (hereafter called "stimuli"). To present these stimuli to consumers, we collaborated with a local market research firm and hosted the experiment under its website. We (or, rather, the firm) then invited a group of subjects to browse the website and sign up as a member of the firm. Because the subjects were randomly assigned to different experimental stimuli, their decisions as to whether to sign up and provide information allowed us to directly assess the influences of the studied independent variables (privacy protection, monetary incentive, and information collection).

By estimating a binary logistic response function that incorporates the manipulated factors and a few control variables, we found that privacy protection, in the form of publishing a privacy statement, and monetary incentive increase consumers' predisposition to sign up as the firm's members. The amount and sensitivity of the requested information show a negative effect, while the display of a third-party privacy seal (a "stronger" form of privacy protection) does not seem to affect the subjects' decisions. Several control variables, including prior shopping and privacy invasion experience, and individual's propensity to trust other people also significantly influence the subjects' choices. The fitted logistic response function successfully predicts the behavior of more than 85 percent of our subjects.

One distinct advantage of our methodology is that the purpose of the study is completely disguised – the subjects interacted only with our partner firm, and the whole experimental task was framed as a membership sign up

exercise. Because of this empirical realism, our response function provides a clear-cut and unbiased assessment on the substantive value of the studied factors. Further, it also generates findings that triangulate previous survey or laboratory research on information privacy (e.g., Culnan 1993; Culnan and Armstrong 1999; Hann et al. 2002).

The rest of this article is organized as follows. Section 2 provides a sketch of our theory and formulates the research hypotheses. Section 3 outlines the details of our methodology and the experimental procedures. Section 4 presents the binary logistic response model and the estimation results. Finally, section 5 discusses the research findings, suggests a few managerial implications, and concludes the paper.

## Theory and Hypotheses

Any marketing transaction imposes risk on consumers, which includes the uncertainty and adverse consequences of taking part in the transaction (Cox and Rich 1964; Dowling and Staelin 1994; Sitkin and Pablo 1992). In an online environment, consumers not only need to worry about the products/services that they are acquiring, but also the risk pertaining to the collection and use of their personal information. This has aroused concerns about online privacy (Culnan 1993). Theories in consumer psychology and sociology suggest that people seek privacy to maintain self-identity, social divisions and status, and avoid unwanted disclosure or intrusion (Goodwin 1991, 1992; Schwartz 1968). Consumers may associate a high perceived risk of information misuse to potential privacy invasion, which in turn may lead to lower intention to participate in online activities or transactions (Culnan 1993; Stone et al. 1983).

To mitigate the perceived risk associated with information misuse, it is important for firms to bestow distributive and procedural justice when soliciting consumer information (Culnan and Bies 2003). That is, firms should take steps to ensure that consumers are provided with fair outcomes resulting from the disclosure, and they should implement proper procedures (such as FIP) to handle consumer data.

Two theoretical frameworks are pertinent to predicting consumers' willingness to partake in online disclosure. First, the resource exchange theory characterizes six broad categories of interpersonal resources: love, status, information, money, goods and services, which are repeatedly found to be exchangeable for one another by individuals (Foa 1971). Previous empirical research has shown that this theory can be applied to analyze interpersonal relationships (Donnenwerth and Foa 1974), and it also sheds light on marketing transactions and consumer behavior (Brinberg and Wood 1983; Hirschman 1987). If we consider an online transaction as an interpersonal exchange between a consumer and a firm, then we can directly extend and apply the theory to the online context, and predict that the consumer is more willing to forgo personal data when the firm provides her with proper resources.

Specifically, applying the resource exchange framework to online privacy, we can consider privacy protection as a service resource which firms could use to exchange for individuals' personal data, the latter being an obvious member of information resource. Similarly, monetary incentive, a direct manifestation of money resource, could potentially be used to trade for consumer information. A straightforward implication of this resource exchange hypothesis is that consumers may be more willing to disclose information to a firm if the firm provides a reasonable level of privacy protection, sufficient monetary incentive, and does not request for excessive personal information. As long as the consumers think the terms of exchange are "fair", then there is a higher chance for them to join the exchange (i.e., participate in the transaction).

The second perspective that may help predict individuals' privacy preference is the social exchange theory, which is popularly used in social psychology to explain network relationships and human behavior (Cook and Whitmeyer 1992). The social exchange theory posits that individuals tend to perform actions that generate outcomes which, based on their past experience and personal preference, are rewarding to them (Blau 1964; Emerson 1972; Homans 1961; Thibaut and Kelley 1959). The more rewarding is a particular outcome, the more likely the individuals to perform the action associated with the outcome. Likewise, the more costly or undesirable is a particular outcome, the more likely the individuals to avoid the associated action.<sup>iv</sup> Previous research has applied this social exchange framework to analyze various economic and social phenomena, such as strategic information technology alliance, voluntary cooperation, and wage-effort equity (Akerlof and Yellen 1990; Hollander 1990; Young-Ybarra and Wiersema 1999).

In online exchanges, most consumers would prefer money and service resources (the resource exchange hypothesis; Foa 1971), which implies that monetary incentive and privacy protection are positive reward factors that consumers treasure. On the other hand, because consumers perceive a subjective risk of information misuse (Culnan and Armstrong 1999), the provision of personal data may represent a negative cost factor associated with a particular transaction. Applying the social exchange hypothesis, we deduce that it is more likely for consumers to cooperate with websites that provide more monetary resource, privacy protection, and solicit less personal data. Equivalently, websites which follow these practices tend to be more attractive to prospective consumers.

Based on the above theoretical perspectives,<sup>v</sup> and previous evidence generated in empirical privacy research (e.g., Culnan and Armstrong 1999; Hann et al. 2002; Phelps et al. 2000), we formulate and test the following three hypotheses in this study:

H1: A website that offers a higher information privacy protection can draw more consumers to sign up and provide personal information; the higher the level of protection, the more likely the consumers to join the website.

H2: A website that offers a higher monetary incentive can draw more consumers to sign up and provide personal information; the higher the monetary incentive, the more likely the consumers to join the website.

H3: A website that collects less consumer information can draw more consumers to sign up and provide personal information; the lesser the information collected, the more likely the consumers to join the website.

Figure 1 depicts the research model that we pursue in this study.

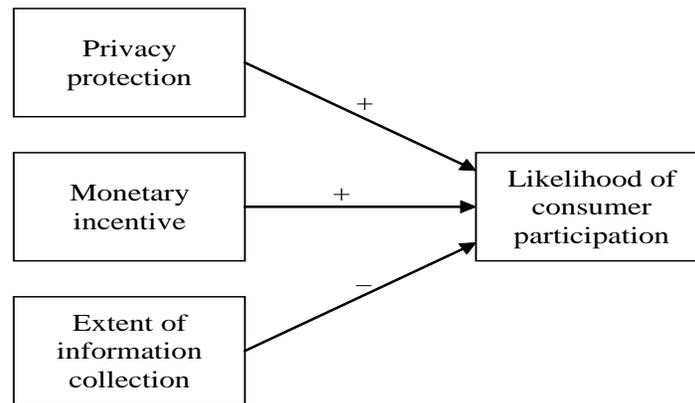


FIG. 1. RESEARCH MODEL

## Methodology<sup>vi</sup>

To observe the actual response and behavior of consumers, we conducted a field experiment and tested the proposed hypotheses using carefully constructed stimuli. The experimental website was hosted under the domain name of a local market research firm, which specializes in providing consulting and survey services to clients. To disguise the real purpose of the experiment from our pool of subjects, we framed the whole exercise as a membership sign-up request, and asked the subjects to answer questions pertaining to their personal records and their preferences toward mobile computing products. The latter questions were used to distract the attention of the subjects, and to provide an arbitrary purpose for initiating the requests. Essentially, we positioned ourselves as seeking the subjects' opinions on mobile devices, which would be used in the future to introduce customized product offerings.

The subjects were asked to visit the firm's website and fill in a survey form, which contains mandatory information items that they must submit to complete the registration, together with the optional mobile device

questions. After the subjects made their sign-up decisions, regardless of whether they decided to join as a member (and provide all the mandatory information), a follow-up survey would be posed to solicit some background questions (manipulation checks, past experience, privacy knowledge, etc.). To motivate the subjects to answer the follow-up survey, which is important for experimental control and statistical estimation, we provided a substantial monetary incentive to all the subjects.<sup>vii</sup> Most of the questions in the follow-up survey, except the experience-related questions, were seeking the subjects' personal opinions. Therefore, they were substantially less intimate than the main survey, which requested for personal data that could be rather sensitive to certain people. Because of this, even though 23 subjects did not fill in the main survey form, they nevertheless completed the follow-up survey.

#### **Manipulations**

We varied the three independent variables corresponding to H1, H2 and H3, to construct multiple experimental stimuli. First, for information privacy protection, we created three treatment conditions: (1) no protection; (2) protection by means of publishing a detailed privacy statement; and (3) protection by a privacy statement and a third-party privacy seal. Prior literature has recommended privacy seal as a comprehensive protection mechanism that ensures adherences to all the FIP (Benassi 1999). To assess the added benefit (if any) of a privacy seal over a privacy statement, we implement condition (3) by acquiring and displaying a commercial privacy seal from TRUSTe.<sup>viii</sup> Because condition (2) is basically a subset of (3), the magnitude of information privacy protection is, in ascending order, (1) < (2) < (3).

Second, for monetary incentive, once the subjects arrived at the website, we informed them that they would receive a check upon completing the main survey and signing up as a member of the firm (which requires them to fill in all the mandatory information).<sup>ix</sup> The value of the check varied from one to nine Singapore dollars (around 0.6 to 5.2 U.S. dollars). This manipulation allows us to assess the sign-up rate with respect to the different levels of monetary incentive, which corresponds to testing H2.

Finally, to manipulate the extent of information collection, we varied the length of the mandatory section in the main survey form by asking subjects to fill in different sets of personal information. The number of questions asked of subjects ranged from four to twenty three. The complete set of the solicited items are displayed in the Appendix. To avoid contaminating our results due to the subjects' idiosyncratic assessments of a particular piece of information, we arranged the treatment levels in such a way that the items requested in a shorter form was always a subset of the items requested in a longer form. For instance, the shortest treatment condition asked for name, email, address and citizenship; the next higher treatment condition asked for the same four items plus gender; the next one added ethnicity; and so on until the longest group, which requested for all the 23 pieces of information. A sufficient variation of this experimental treatment allows us to effectively test H3.

The specific stimuli presented to the subjects were constructed by randomly combining the different levels of the three treatment variables. A particular stimulus that a subject may see is, for example, a survey form that asks for name, email, address, citizenship, and gender, provides a monetary incentive of five dollars, and the website publishes a privacy statement. The stimuli were dynamically generated using a uniform probability density function, and presented to the subjects randomly when the subjects visited the website. To ensure that the manipulations were salient to the subjects, the explanation about the monetary incentive and privacy protection treatment (display nothing, privacy statement, or privacy statement and seal) were presented together with the main survey form that contained the mandatory items.

#### **Control Variables**

In the follow-up survey, we captured a few demographic variables and used them as controls to calibrate the logistic response model. First, we gauged the subjects' propensity to trust other people by including two 7-point Likert scale items: (a) I feel that people are generally trustworthy; (b) I feel that people are generally reliable. The basis for including trust propensity as a control variable is that it may reflect the predisposition of consumers to trust general others, which may directly affect their confidence on our partner firm in the experiment (Culnan and Bies 2003).

Second, we asked the subjects whether they had any experience of personal information misuse (yes/no binary response). One important proposition of the social exchange theory is that interpersonal reward/cost is individual specific, and its salience may depend on how often and recent the corresponding stimulus was presented (Emerson 1972; Homans 1961). People have lower tendency to perform actions that lead to reward/cost that they have received in the recent past.<sup>x</sup> If we treat information misuse as an online privacy cost, we would expect more

negative responses from subjects who have encountered such an experience.

Third, we asked the subjects if they have shopped on the Internet in the past 12 months (yes/no binary response). Past privacy research suggests that the sensitivity to privacy and the perception of invasion are situation specific, and they vary across individuals with different characteristics and personal preferences (Laufer and Wolfe 1977; Stone and Stone 1990). To capture such variations, we used Internet shopping experience as a proxy to probe whether the subjects are reactive to online privacy threats. In general, we posit that people who are used to shop online have higher likelihood to show positive responses.

Finally, consumers' concern about online privacy could be reflected in their knowledge and attitude toward browser cookies. As an attempt to control for the subjects' a priori concern, we asked the subjects to indicate their cookie settings, and used this question (a binary response – whether they have explicitly set their cookie preferences) as a behavioral indicator of their concerns about online privacy.

We also asked the subjects to rate separately the intimacy of each of the mandatory information items on a 7-point semantic-differential scale. We then used these ratings to construct an aggregate intimacy score from each subject's responses. Such a score could be used as an alternative to number of items to assess H3. Because information intimacy is subjective, the solicited intimacy score should represent a more accurate assessment of privacy cost as compared to number of items.

**Subjects**

We obtained mailings lists to 600 business undergraduate and postgraduate students in a large university. The sampling frame was constructed carefully such that all the listed members were not customers of, and had no transaction experience with, our partner firm. Invitation emails with individual-specific claim codes (refer to footnote 9) were then sent to all the listed members. Over a period of two weeks, 137 people responded and visited the firm's website, and 109 of them completed the experiment.<sup>xi</sup> This represents an overall response rate of 18.17 percent. As suggested by Pitkow and Kehoe (1997), most people delete unsolicited emails without reading the contents. Therefore, the somewhat low response rate is not surprising. The response rate is 79.56 percent if we consider only those people who responded to the email.

TABLE 1: DESCRIPTIVE STATISTICS OF THE SUBJECTS AND EXPERIMENTAL TREATMENTS

	Mean	St. Dev.	Max.	Min.
<u>Subject background:</u>				
Internet shopping experience	0.38	0.49	1	0
Information misuse experience	0.43	0.50	1	0
Cookie preference setting	0.44	0.50	1	0
Trust propensity	3.09	0.98	6	1
<u>Treatment variables:</u>				
Protection by privacy statement	0.39	0.49	1	0
Protection by privacy statement and privacy seal	0.27	0.44	1	0
Monetary incentive	4.76	2.46	9	1
Number of information items requested	13.41	5.66	23	4
Total intimacy of the requested information	52.68	27.49	115	6

Note: the two experience, cookie preference setting, and two privacy protection variables are binary. Hence, the means represent the proportion of subjects having the characteristics or treatments. Total intimacy is computed by adding up the intimacy score for each requested item.

Table 1 presents some descriptive statistics of the 109 subjects and the experimental treatments. The average age of the subjects was 24, and the range was 21-28. 53 and 47 percent of the subjects were females and males respectively.

## Results

### Manipulation Checks

In the follow-up survey, we asked the subjects to answer several questions to assess the effectiveness of the manipulations. First, we asked the subjects to indicate, using yes/no binary responses, whether they had seen a privacy statement and a privacy seal. All answers were consistent with the corresponding treatment conditions, indicating that the privacy protection manipulation was successful.

Second, we asked the subjects to rate two 7-point Likert scale items to verify the manipulation of monetary incentive.<sup>xii</sup> A regression of the response on the provided incentive levels gives a coefficient of 0.084, with a one-tailed p-value of 0.07. This indicates that the manipulation is satisfactory, albeit only marginally.

Finally, we used two questions to check the manipulation of information collection.<sup>xiii</sup> A regression of the response on the number of items requested gives a coefficient of 0.103, with a one-tailed p-value less than 0.01. Therefore, we conclude that the manipulation of information collection was successful.

### Hypotheses Testing

In the main survey, the subjects could choose either to sign up with our partner firm by filling in all the mandatory information or they could withdraw without answering anything. Because the response was discrete and contained only two states (participate or withdraw), we used a binary logistic response function to approximate the probability of participation by the subjects. In line with the model in Figure 1, our empirical equation assumes the following form:

$$\log\left(\frac{\pi}{1-\pi}\right) = \alpha + X\beta + Z\gamma + \varepsilon, \quad (1)$$

where  $\pi$  denotes the probability of participation by the subjects, and  $X$  is a matrix of the studied variables: privacy protection (H1), monetary incentive (H2), and the extent of information collection (H3). Note that we need two dummy variables to capture the three privacy protection treatments, and  $\alpha$  represents the base case with no protection imposed. Also, the intimacy score and number of items requested were used as two alternative measures for the extent of information collection.  $Z$  is a matrix of control variables: trust propensity, information misuse and Internet shopping experience, and cookie preference setting.  $\beta$  and  $\gamma$  are parameter vectors that were estimated by fitting equation (1) to the experimental data. Finally,  $\varepsilon$  catches any unexplained random errors.

Among the 109 subjects, 86 participated and answered all the requested mandatory information. The first column of Table 2 reports the maximum likelihood estimation results of equation (1), using the intimacy score as a measure of the extent of information collection.

To assess the joint significance of the explanatory variables, we compared the fit of the estimated model with a null model, which was constructed by restricting all model parameters (except the constant) to zero. The likelihood ratio test statistic was 37.18 ( $p < 0.01$ , with 8 degrees of freedom), indicating that the model variables helped predict the probability of the subjects' participation. The computed McFadden R-square was 0.331, which suggests moderate explanatory power.

The Wald statistics in Table 2 show that the effect of privacy statement was positive and marginally significant, but the coefficient of privacy seal was not significant. This provides weak support for H1. The effect of monetary incentive was positive, and that of information intimacy was negative. Both coefficients were statistically significant. Therefore, H2 and H3 are supported.

TABLE 2. ESTIMATION RESULTS

	(1)		(2)	
	Coefficient <sup>a</sup>	Wald	Coefficient <sup>a</sup>	Wald
Constant	-2.746* (1.507)	3.320	-2.532 (1.573)	2.591
Privacy statement	1.169* (0.688)	2.888	1.154* (0.683)	2.861
Privacy seal	1.058 (1.085)	0.950	1.234 (1.103)	1.251
Monetary incentive	0.398*** (0.142)	7.823	0.374*** (0.143)	6.883
Intimacy score	-0.027** (0.013)	4.328		
Number of items requested			-0.136** (0.065)	4.379
Trust propensity	1.126*** (0.366)	9.432	1.106*** (0.374)	8.751
Information misuse experience	-1.147* (0.639)	3.227	-1.266** (0.640)	3.912
Internet shopping experience	1.758** (0.748)	5.527	1.786** (0.750)	5.671
Cookie preference setting	-0.531 (0.656)	0.654	-0.494 (0.653)	0.572
Sample size	109		109	
Log likelihood	-37.574		-37.390	
McFadden R-square	0.331		0.334	

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10.

<sup>a</sup> Standard errors are presented in parentheses.

For the control variables, consistent with a priori expectations, the subjects who tended to trust other people, and who had previous Internet shopping experience, were more likely to sign up as members of the firm. On the other hand, those who encountered information misuse in the past had a lower likelihood to participate. The sign of the cookie setting parameter was negative and consistent with our prediction, but it was not statistically significant.

Finally, to assess the goodness of fit of the binary logistic response model, we conducted the Hosmer-Lemeshow (1989) test, using predicted probabilities from the estimation as grouping variable. The calculated Hosmer-Lemeshow statistic, with 6 degrees of freedom, is 8.995, which has a p-value of 0.17. Hence, there was no evidence for lack of fit of our model.

#### Robustness

As a further test of our hypotheses and the robustness of the model, we re-estimated the logistic function using the number of requested items in place of the intimacy score. The results are reported in the second column of Table 2. Generally, the variables were jointly significant (likelihood ratio test statistic = 37.55, p < 0.01), and the signs and significance of the parameters were consistent with those obtained above.

Specifically, H1 is weakly supported, with the parameter of privacy statement being positive and marginally significant, while the addition of a privacy seal was not significant. H2 and H3 are both supported. Providing more monetary incentive and requesting less information seemed to encourage people to participate. All the control variables had the same signs and significance levels as those in Table 2, column one. Finally, the Hosmer-Lemeshow test statistic is 7.729 (p-value = 0.26), indicating an adequate fit between our model and the data.

#### Prediction

The predictive power of our model can be observed by inspecting the classification results, which are summarized in Table 3, panels (a) and (b). Evidently, our model is quite powerful in predicting the “participate” cases, whereas it does not perform as well in identifying the “withdraw” cases. We can correctly classify only 57 percent of the

subjects who chose not to provide their personal information. In any case, the overall classification accuracy exceeds 85 percent, irrespective of which variable we used to measure the extent of information collection.

TABLE 3. CLASSIFICATION TABLES  
(a) With intimacy score

Observed frequency	Predicted frequency		
	Withdraw	Participate	Percentage correct
Withdraw	13	10	56.52
Participate	3	83	96.51
Overall percentage			88.07

(b) With number of information items

Observed frequency	Predicted frequency		
	Withdraw	Participate	Percentage correct
Withdraw	13	10	56.52
Participate	4	82	95.35
Overall percentage			87.16

The value of adding each of the three treatment variables can be individually examined using the fitted logit function. By substituting the fitted parameters into the logit model and removing the random error term, the “participate” probability,  $\pi$ , can be calculated as:

$$\pi = \frac{e^{\hat{\alpha} + X\hat{\beta} + Z\hat{\gamma}}}{1 + e^{\hat{\alpha} + X\hat{\beta} + Z\hat{\gamma}}} \quad (2)$$

Due to the non-linear specification, the marginal effect of the independent variables (X or Z) on the participate probability ( $\pi$ ) is not uniform. Therefore, the merit of increasing a particular treatment depends on the current levels of all the predictors.

Table 4 presents the results of several scenario analyses, by computing the “participate” probabilities using (only) the significant parameters in Table 2, and the mean values of the control variables as reported in Table 1. For an average subject, if we do not request for any personal information, do not provide monetary incentive, and offer no privacy protection, then the chance for her to participate is roughly 0.71-0.73. This probability drops substantially to 0.31-0.37, once we request for an average of 13 pieces of personal information (or total intimacy score of 53). These estimates present strong evidence that the extent of information solicitation does indeed deter consumers from joining a website.

TABLE 4: SCENARIO ANALYSIS OF PARTICIPATE PROBABILITIES

	Model (1)	Model (2)
<b>Base case 1 (B1):</b>		
Absence of all treatment variables (privacy protection, monetary incentive, information collection)	0.71	0.73
Add a privacy statement to B1	0.89	0.90
Add a \$5 incentive to B1	0.95	0.95
<b>Base case 2a (B2a):</b>		
Request for mean intimacy of information, as reported in Table 1, in addition to condition B1	0.37	
Add a privacy statement to B2a	0.66	
Add a \$5 incentive to B2a	0.81	
Add a privacy statement and a \$5 incentive to B2a	0.93	
<b>Base case 2b (B2b):</b>		
Request for mean number of items, as reported in Table 1, in addition to condition B1		0.31
Add a privacy statement to B2b		0.58
Add a \$5 incentive to B2b		0.74
Add a privacy statement and a \$5 incentive to B2b		0.90

Note: model (1) corresponds to the first column of Table 2 (with intimacy score), while model (2) corresponds to the second column (with number of items).

Such an undesirable consequence, however, could potentially be mitigated by some external instruments. Specifically, if the firm provides online privacy protection by means of publishing a privacy statement, then the “participate” probability rises to 0.58-0.66. If the firm further adds a \$5 monetary incentive to those who sign up, then the probability would go up to 0.90-0.93, a rather high chance of success. In fact, based on the fitted models, a \$5 monetary incentive is always superior to publishing a privacy statement. From the analyses in Table 4, the provision of a \$5 incentive outperforms publishing a privacy statement by a probability of around 0.15-0.16 in typical data collection scenarios.

## Discussion and Conclusions

### Limitations and Future Research

This study employed a novel field experiment to assess the influence of privacy protection instruments (privacy statement and third party privacy seals) and information solicitation practices (use of monetary reward and extent of information collection) on online participation behavior. Except for privacy seal, all other factors had significant impacts on online participation. To the extent that our field experiment represents a realistic encounter for the subjects on the Internet, our findings should provide a rather accurate indication of actual online participation behavior on the Internet.

Notwithstanding our contribution of providing a realistic assessment of the relative effectiveness of the privacy instruments and the information solicitation practices, our study has some limitations. First, the use of Singapore-based student subjects could potentially make our results less generalizable to working adults or to a population in a different economic, political, social, and cultural context. While it is possible that our subjects may be more sensitized to monetary reward and less concerned for privacy violations, we believe that this concern is somewhat mitigated in our study because our findings show that privacy statement did have a strong impact on the subjects’ participations. Second, there may be a concern that our prediction of the “withdraw” cases is somewhat marginal although we did manage to predict more than 95 percent of the “participate” cases correctly. This suggests that better variables may be needed to identify the people who withdrew. Hence, we believe much can be gained if future research can replicate our study using a similar methodology with subjects having different demographics and with other variables pertaining to website characteristics that might be more effective in predicting the “withdraw” cases. For example, the relevance and the reputation of the website might play an important role in determining

subjects' decisions to "withdraw" from the website. It is possible that only when the subjects have determined the relevance of the website, do they decide to consider the privacy instruments and the information solicitation practices used by the firm. Similarly, the reputation or its lack of may deter subjects from engaging with the website, regardless of the conditions provided by the firm.

#### **Explanations for Non-Supported Hypotheses**

The lack of usefulness of the privacy seal mechanism in encouraging online participation is rather surprising and perturbing. Seals of endorsement from trusted third parties (e.g., Truste, BBBonline, TrustSg<sup>xiv</sup> program from the National Trust Council of Singapore) purportedly should enhance consumers' trust in those firms that deploy them because they provide an authentication and certification of those firms' privacy practices. Indeed, much investment has gone into promoting the use of trusted third parties' privacy seals in the United States, Singapore and Europe in general. Given this huge investment in promoting the adoption of these privacy seals, our finding thus begs the question of "why" these seals are ineffective in encouraging online participation.

There are a few plausible reasons. First, consumers may have some doubts concerning the independence of these trusted third parties that derive their sustenance (revenue) from the very firms that they audit and certify. For instance, Microsoft "earned only an investigation" from these trusted third parties when it was discovered to have sent a specific hardware identifier to Microsoft during user registration of Windows 98 operating systems without the user consent and knowledge.<sup>xv</sup> Second, even if consumers were to believe in the independence of these trusted third parties, there are some nagging perceptions as to whether they have any legal bite at all when enforcing the compliance of privacy practices to established guidelines. To-date, reported cases of how these trusted third parties dealt with offenders appears to be lacking and there is also no blacklist of offenders on their websites. Because of these problems, our subjects may have found no significant value-added in privacy seals compared to the privacy statements that are in place. In essence, a consumer whose privacy has been violated, may complain to FTC based on the posted privacy statement with the same effect as compared to one who may complain to these trusted third parties based on the abused privacy seals.

#### **Managerial Implications**

Our finding has significant practical implications for both trusted third parties and online firms. It appears necessary for trusted third parties to embark on a more pro-active communication campaign to improve its credibility in the eyes of the consumers. They ought to exhibit greater transparency in the way investigations are being conducted for privacy violations of their clientele, and to communicate their investigation outcomes to the public at large (and not only to the complainants). Such a move could help enhance their relevancy to the public, which in turn ensures their sustainability in the long run. To remain passive would induce consumers' skepticism and distrust of them, and firms upon realizing their irrelevance to the public, would also forsake them and pursue other avenues (e.g., technological solutions like P3P) to assuage consumers' privacy concerns.

Based on our results, online firms should also carefully assess their own situational context (e.g., resources constraint and data mining abilities) when adopting appropriate strategies to address consumers' privacy concerns in order to solicit online participation. The binary response model (Table 2) suggests that providing privacy statement exerts a strong influence on online participation behavior. Firms should thus generally invest more resources into drafting an appropriate privacy statement and devising proper procedures and routines to meet its obligations espoused in that statement. As our control variables of trust propensity and previous information misuse experience are also significant, firms' adherence to the fair information practices in privacy statement carries a greater significance because any publicized malpractice is likely to deter consumer from registering with the website. Besides providing privacy statement, firms could also solicit online participation through providing a monetary reward or collecting less information from consumers. The latter should be practiced especially when it is critical to convey to the consumers that only the necessary information is collected to provide the service or effect the transaction, and when the firm does not possess any internal capabilities (data mining skills) to exploit the collected information.

## Concluding Remarks

Our study contributes to extant literature on how consumer privacy concerns can be effectively addressed by several interventions in an e-commerce arena, an area that is still in need of much research given the evolving technologies and practices of online firms (Milne 2000). A key strength of this study is the use of a novel field experiment to evaluate subjects' actual online participation behavior and to calibrate the effectiveness of different privacy protection mechanisms and information collection practices. In addition, we explored two variables, monetary reward and amount (sensitivity) of information collected, that are relatively less studied and less understood. Our findings show the primacy importance of monetary reward and privacy statement in determining potential consumers' information provision or participation behavior. To the extent that our study induces strong empirical realism, the lack of support for the effectiveness of privacy seals in determining online participation is a serious concern that warrants greater attention and investigation. We strongly believe that research along the direction of this study should contribute to an in-depth understanding of consumers' online participation and information provision behaviors.

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## Appendix

### Requested Items

1. Name
2. Email address
3. Address
4. Citizenship
5. Gender
6. Marital status
7. Ethnicity
8. Country of residence
9. Phone number
10. Occupation
11. Household size
12. Monthly household income
13. Identity card/passport number
14. Banks/financial companies that you have accounts
15. Bank account balance
16. Personal monthly expenditure
17. Types of credit cards owned
18. Types of personal debt
19. Amount of personal debt
20. Highest education achieved
21. Name of educational institution corresponding to (20)
22. Average grade point average
23. Number of courses failed in the past

## End Notes

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<sup>i</sup> In 2000, *Amazon.com* was alleged practicing price discrimination using consumers’ demographic information when providing discounts to DVD purchases. Although the company denied the charge and stated that it was merely conducting a random price test, it nevertheless apologized and made refunds to 6,896 involved customers ([http://www.internetnews.com/ec-news/article.php/4\\_471541](http://www.internetnews.com/ec-news/article.php/4_471541)). At around the same time, the U.S. Federal Trade Commission (FTC) stopped a bankrupt website, *Toysmart.com*, from selling its customer database, which the company previously promised not to share with any third parties (<http://www.ftc.gov/opa/2000/07/toysmart2.htm>). Recently, the FTC confronted *Microsoft* for providing false promises regarding the security and privacy protection incorporated in *Microsoft’s Passport* technology (<http://www.ftc.gov/opa/2002/08/microsoft.htm>). It is instructive to note that most of these incidents were spearheaded by consumer groups and privacy advocates.

<sup>ii</sup> The leaders of these are TRUSTe and the Better Business Bureau’s BBBOnline.

<sup>iii</sup> Hann et al. (2002) use a conjoint experiment to estimate the utility that consumers attach to monetary incentives and privacy protection. Because the study is conducted in a laboratory with hypothetical websites and scenarios, the results are only indicative of individuals’ preferences across the set of manipulated stimuli. They may not necessarily translate into actual disclosure/participation behavior.

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<sup>iv</sup> Homans (1961) calls this the *value proposition*. Note that these behavioral inclinations are all expressed in probabilistic terms; given a certain set of stimuli with different reward and cost structures, people *tend* to perform the action that generates the highest net value (i.e., more rewarding/less punishment to them).

<sup>v</sup> Other related privacy theories include the “privacy calculus” proposition developed by Laufer and Wolfe (1977), and the expectancy theory-based model proposed by Stone and Stone (1990). The general theme of these models is consistent with the social exchange theory: people assess interpersonal rewards and costs, and they gear toward an outcome that maximizes their net value.

<sup>vi</sup> The actual webpages and surveys that subjects saw are in the appendixes and available upon request.

<sup>vii</sup> Specifically, we offered the subjects 20 Singapore dollars (around 11.5 U.S. dollars) if they completed the follow-up survey, which took them only around 10 to 15 minutes.

<sup>viii</sup> Note that privacy statement and third-party privacy seal are apparatus to protect consumers’ online privacy, and they can both be employed to assess H1. The net value of having a privacy seal on top of a privacy statement is an empirical question.

<sup>ix</sup> To prevent a subject from registering twice to claim more money, we generated a unique claim code for every subject that we solicited through email. Each claim code could only be used once, and a valid claim code must be entered before a subject can see the survey. The checks were mailed individually to the subjects after the experiment.

<sup>x</sup> This corresponds to the *deprivation-satiation* proposition in Homans (1961), and Proposition 2 in Emerson (1972).

<sup>xi</sup> We were not able to use those 28 subjects who visited the ‘Welcome Page’ and did not participated in the survey. We don’t know the real reason of non-participation. Furthermore, they didn’t see the stimuli at all.

<sup>xii</sup> The two items are: (1) the amount of money I received is adequate to compensate for my effort and time spent in participating in the mobile device survey; (2) the reward I received from participating in the mobile device survey is worth the information I give. The reliability of the two items is 0.8611. The two items were averaged to produce an overall score (mean = 4.66 across all the subjects).

<sup>xiii</sup> The two 7-point Likert scale items are: (1) I feel that the mobile device survey is collecting too much personal information about me; (2) I am giving out a lot of information (reliability = 0.9120). The two items were averaged to produce an overall score (mean = 4.54 across all the subjects).

<sup>xiv</sup> See [www.trustsg.org.sg](http://www.trustsg.org.sg) for details.

<sup>xv</sup> <http://www.wired.com/news/technology/0,1282,18600,00.html>

# Innovative Model for Product & Price Decisions in Marketing

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## Abstract

Based on author's original method DISTEH (i.e. technical distance) – an innovative competitiveness model was developed. Following to previous author's research work, this paper presents the model, which is used for making the right product and price strategy in marketing, useful mostly when new product or technology spring. The decisions on product and price are intimately interlinked. Using statistical methods, as regression analysis, one might identify "technology family" curves, as well as technology breaks or "technology peaks". The trend of the technology innovation and progress could be identified. Given the "technology family", the marketing manager easily identifies the lower competition zones or marketing niches. A niche corresponds to the best price & product strategy. The managers of marketing and R&D departments can use this method to design marketing strategies with a higher probability to succeed, based on the price and product mix that targets the lowest competition market zone.

## Introduction: Is there an Extra-Reason for Competitiveness Concern?

Besides all well-known economic reasons that an economy must be competitive for, the strategy makers from Romanian companies are more and more concerned about the relatively low competitiveness of their products – in relation with the country's EU accession coming day. On one hand, the day of accession is a nice desired dream but, on the other hand, it could be a nightmare: on a lot larger market, the "Romanian quality" goods and services have questionable chances to succeed in a highly competitive market and lots of firms will probably fail.

For this reason, it is extremely important for the company decision makers to have practical and operational tools to assess and analyze the competitiveness of their products. Starting from this vital and burning need to be addressed, the author's research led to *the competitiveness model*.

It is important to mention that the proposed model is useful mostly when new technologies appear and are analyzed, by and large at the microeconomic decision level.

## The Competitiveness Model

The "Competitiveness Model" developed by the author [5, 7] is an innovative model, which can be used for marketing decisions on product and/or price.

As far as product competitiveness, there are two major goals:

- To identify and assess the main factors, which have a major impact on the product competitiveness;
- To decide how competitiveness and profitability interact.

Based on the *DISTEH* method for assessing the level of technical performance<sup>1</sup>, any product/service might be represented by a dot within the  $p(\bar{T})$  domain (Fig. 1).

The *competitiveness area* is defined (as depicted in the same figure) bi-dimensionally: the dimension of *the technical competitiveness (TC)* – assessed by the level of product's technical performance (this is *technical distance*, according to *DISTEH* method<sup>2</sup>) – and the dimension of *the economic competitiveness (EC)* – measured by the unit price level.

The squared domain can be even measured and evaluated geometrically (the shadowed area  $A_C$ ):

$$A_C = \bar{T}_L * (p_E - c) \quad (1)$$

Lower the technical distance (better the product – as we have seen), higher the technical competitiveness; lower the price, higher the economic competitiveness. A product is more and more competitive as it is – simultaneously – technically and economically competitive (closer to 0) – as the pointed arrows show below.

Unfortunately, this is almost impossible to achieve, because:

- Highly technically competitive products ( $\bar{T}_i$  closed to 0) are rather expensive (unit price goes to  $p_E$  or over);
- Highly economically competitive products (low priced ones) are usually of poor quality.

The solution is compromising – sometimes this is called “good price/quality ratio” or “good value for money”.

*The model allows doing more than that: to measure the competitiveness for each product.*

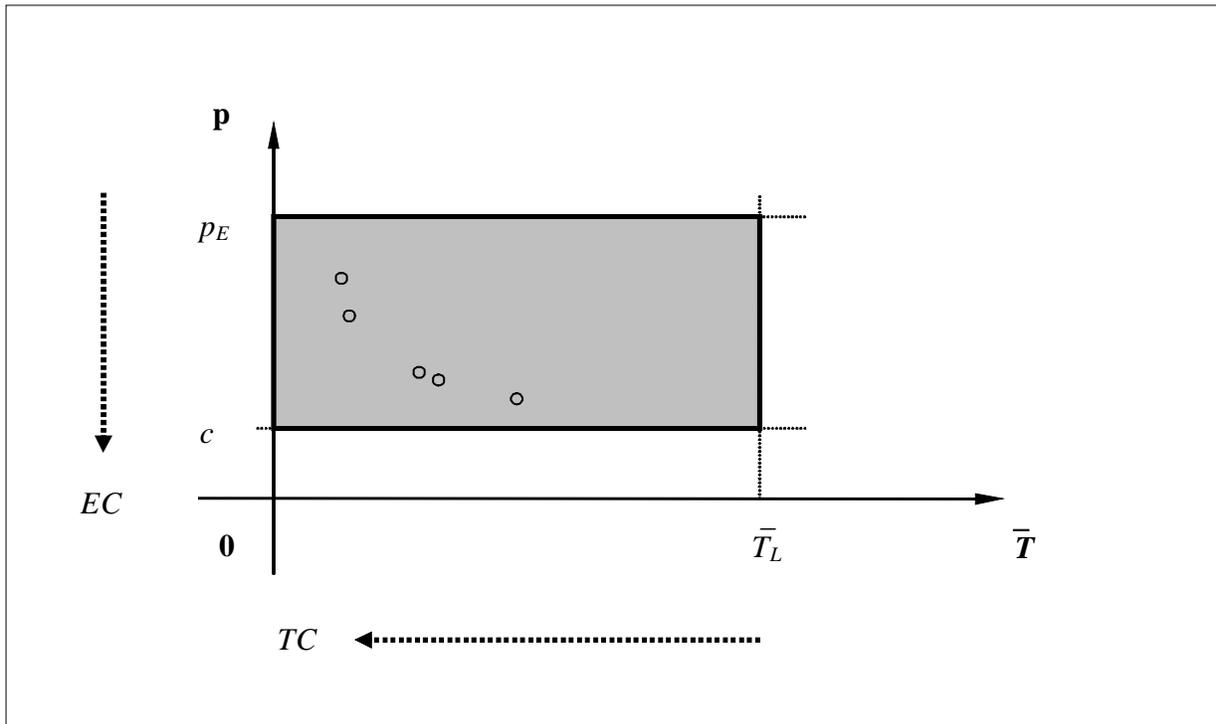


FIGURE 1: COMPETITIVENESS AREA

$\bar{T}$  = Technical distance

$\bar{T}_L$  = Technical distance – limit (over  $\bar{T}_L$  products are not competitive, technically, because of the poor quality)

$p$  = selling price per unit

$p_E$  = excessive price per unit (over  $p_E$ , products are not competitive, economically, as too expensive)

$c$  = production cost per unit (under  $c$ -level, products and production are not profitable)

For each product  $A_i$ , the Competitiveness Index ( $K_i$ ) is defined as (2):

$$K_i = \sqrt{\left(\frac{p_i - \min p_i}{\min p_i}\right)^2 + \left(\frac{\bar{T}_i - \min \bar{T}_i}{\min \bar{T}_i}\right)^2} \quad (2)$$

where:  $p_i$  is the unit price of the product  $A_i$

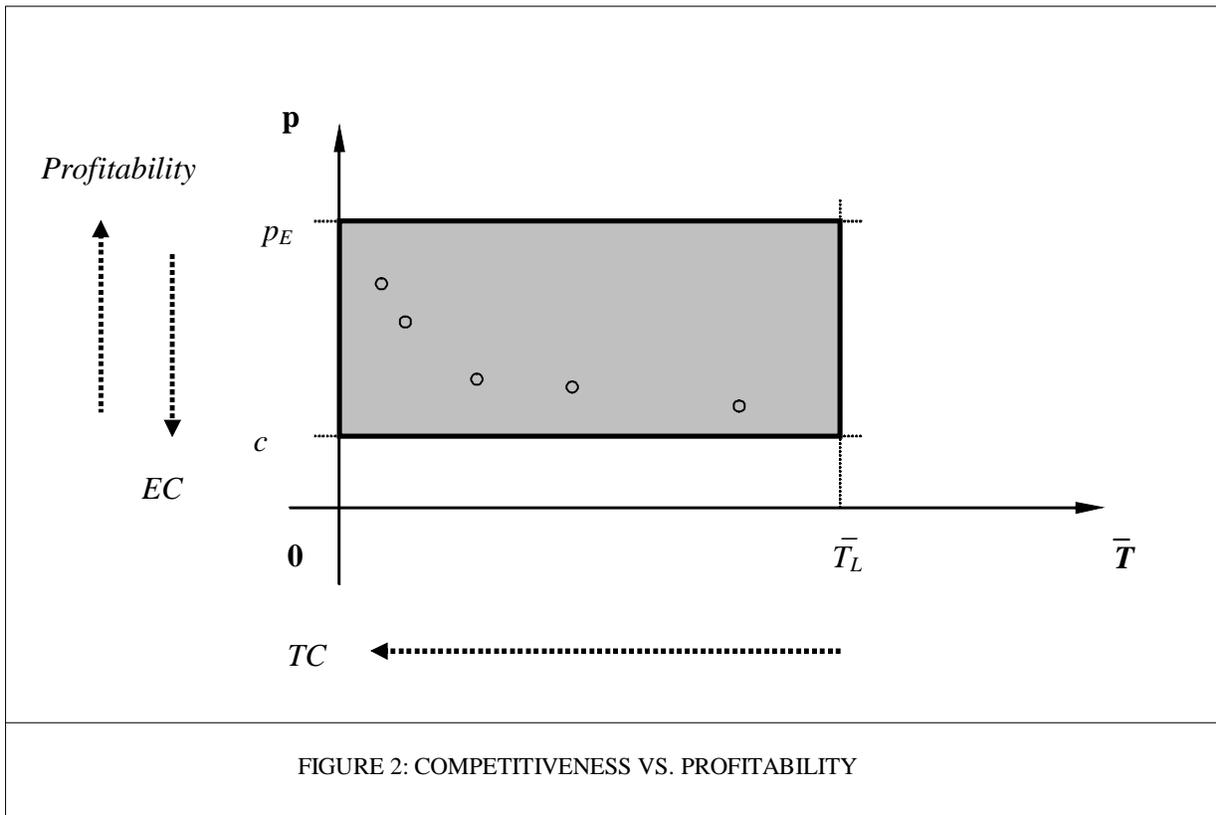
$\bar{T}_i$  is the technical distance for the product  $A_i$

The values  $\max p_i$  and  $\max T_i$  correspond, respectively, to the most competitive product – economically and the most competitive product – technically.

The competitiveness index is positive and un-dimensional, which is appropriate for comparative analysis. The products are ranked according to the  $K_i$  values: the hierarchy is topped by the most competitive product (with the lowest  $K_i$  value), which realizes the best compromise between price and technical performance<sup>3</sup>.

The *Competitiveness Model* also reveals the strong contradiction between competitiveness and profitability: as the unit price is decreasing, the economic competitiveness (EC) increases but the profitability per unit ( $p_E - c$ ) is smaller and smaller (Fig. 2). This “conflict” between (economic) competitiveness and profitability can be solved considering the total profit ( $G$ ) generated by the total amount sold ( $q$ ):

$$G = q(p - c) \quad (3)$$



Because of the sales elasticity,  $q$  depends on  $p$  and – finally –  $G$  depends only on  $p$ . The problem of profit maximization is solved by Scarlat [3, p. 108-112] using derivatives: there is an optimum price ( $p_{opt}$ ) for which the total profit is maximized:

$$G_{\max} = G(p_{opt}) \quad (4)$$

where:

$$p_{opt} \in (c, p_E) \quad (5)$$

and depends on  $c$  and elasticity curve parameters.

### Product Decisions based on the Competitiveness Model

The competitiveness model can be used for (new) technology analysis [7] as well as for product/price strategy design and decisions, which are intimately interlinked.

For a given type of product, there are “clouds” of dots within competitiveness area, each dot corresponding to a specific product of that type. Using statistical methods, as regression analysis, the curve  $p(\bar{T})$  can be easily identified and designed. Note that  $p(\bar{T})$  curve is non-linear (convex). Usually, the most performant product is the most expensive one (towards upper-left on the curve). It represents the so-called “*technology peak*”. In many cases, not only a regression curve can be obtained but several. *Fig. 3* shows the case of two such regression curves, A and B. They describe different “*technology family*” curves, which were identified.

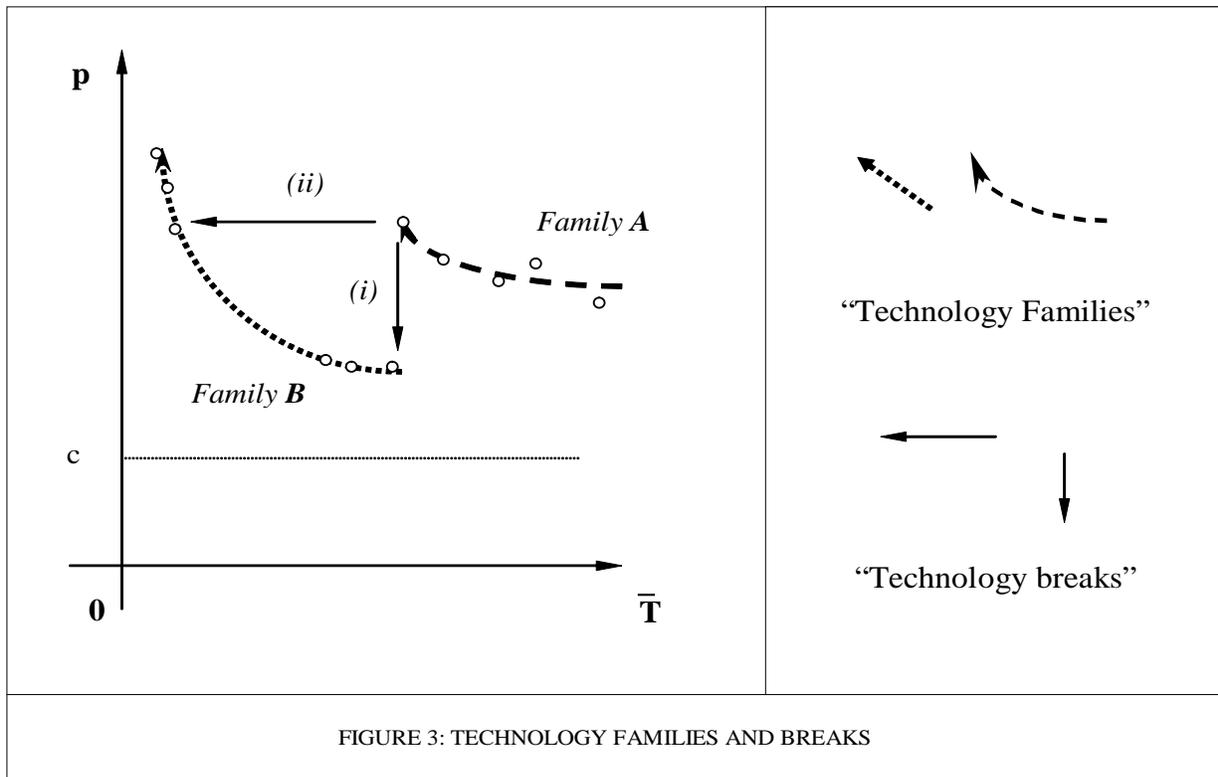


FIGURE 3: TECHNOLOGY FAMILIES AND BREAKS

The B family corresponds to *the innovative technology* as it includes either:

- (i) Chipper products with similar quality and technical performance (technical level  $\bar{T}$ );
- (ii) Products with improved quality and technical performance, at equal price (p).

The transitions of (i) or (ii) types are called “*technology breaks*” (or “*jumps*”). The technology progress always means new products with new and/or improved technical characteristics. The most innovative technology is always placed on the extreme-left of the diagram.

When launching new products, companies may use the bi-dimensional competitiveness model of the  $p(\bar{T})$  curve, as practical method to identify the market niches, as low-competition market zones.

The market niche corresponds to that portion of the regression curve (the most extended) where there are no dots (Fig. 4) – i.e. there is a considerable large demand for a well-defined range of specific technical performance of the given product, *which is not covered by products* and *there is no competition!* Exhibit 4 presents the niche on the curve of “new technology family”.

The niche indicates the range of technical performance of the new product to be designed and engineered, because of the variety of the clients’ needs, which are not covered by the current products, yet (“ $\bar{T}$  gap” on the  $\bar{T}$  axis). It is important to remember that “ $\bar{T}$  gap” corresponds to a set of different technical features of the product. This is extremely valuable market information for a company that will enter in a new market or intends to launch a new product on a given market.

The Marketing and Research & Development departments should be actively involved in making this strategic decision, providing the background information about market niches (the coordinates of the market niche on both axes: product and price). The two components of marketing-mix (“product” and “price”) are strongly interrelated. The decisions on “price” cannot avoid the “product” and vice versa. The top-level management should design the marketing strategy with a higher probability to succeed, based on the price & product mix that targets the lowest competition market zone.

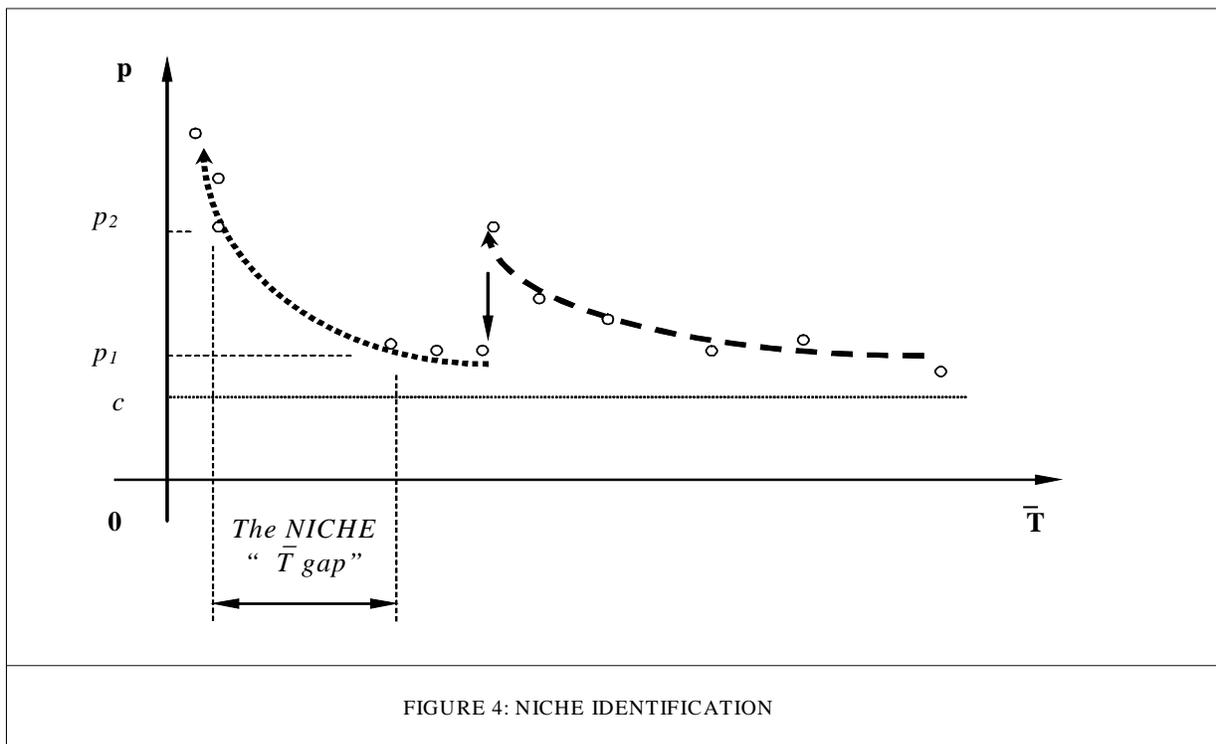


FIGURE 4: NICHE IDENTIFICATION

## Price Decisions based on the Competitiveness Model

The niche identification is only the “coarse tuning”; the “fine tuning” is *how to set the right price within the niche*.

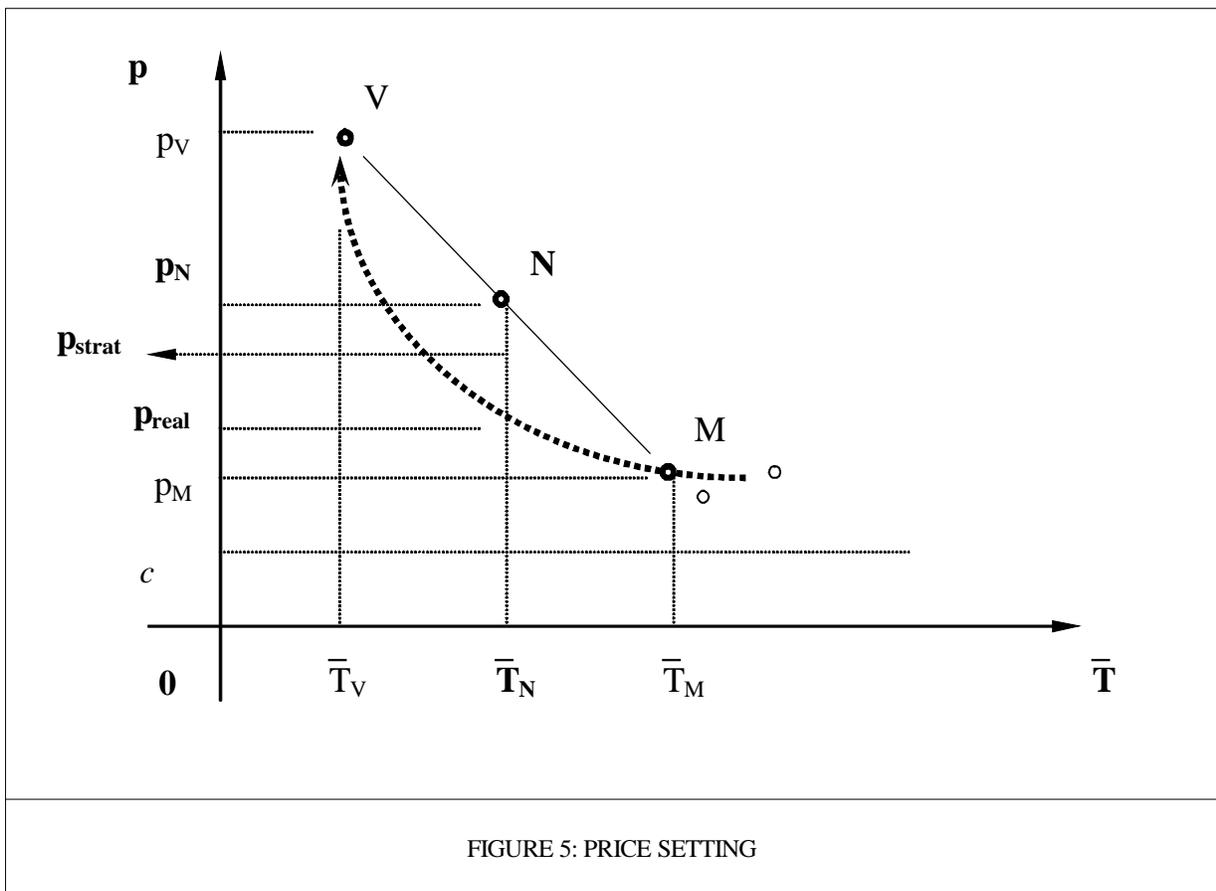
A common situation is presented in *Fig. 5*. The market niche is defined and limited by two existing products (V and M) and their corresponding product and price limits:

- The technical performance between  $\bar{T}_V$  and  $\bar{T}_M$ ;
- The unit price between  $p_V$  and  $p_M$ , respectively.

Assume that a new entrant intends to launch a new “N product” of same type; also, assume its technical performance ( $\bar{T}_N$ ) is roughly in the middle of the distance  $\bar{T}_V$   $\bar{T}_M$ . Most of the customers expect the unit price  $p_N$  to be in the middle of the distance  $p_V$   $p_M$ , as well. As we presented, fact is that the fair unit price ( $p_{\text{real}}$ ) should be on the  $p(\bar{T})$  curve, *which is considerably lower than  $p_N$* ! As Scarlat pointed out [5, p. 337-339], the wise price strategy would set the unit price under  $p_N$  (clients will have the feeling of a low price) but above  $p_{\text{real}}$  (company will report an extra-profit). *This is a very good example of win-win strategy!*

The assumption of mid-positioning of the new product does not influence the above conclusion; it just eases the understanding of the whole rationale.

It should be mentioned that the company management would set the price based not only on the optimum considerations presented but other strategic elements, as well<sup>4</sup>.



## Conclusions

The bi-dimensional competitiveness model – based on **DISTEH** method – is a practical analytical tool for competitiveness assessment. The profitability index allows products' ranking and selection of the most competitive products.

Competitiveness improvement is possible; more than that, the Competitiveness Model and Index indicate which competitiveness component (either technical or economical) that might be improved. The analysis can be refined using the DISTEH method [6].

The competitiveness and profitability are contradicting to each other only apparently. It makes full sense to calculate the optimum unit price, which maximizes the total profit.

Analysis of the competitiveness diagrams – constructed based on  $p(\bar{T})$  regression curves – reveals the innovative technology among different technology families, technology peaks and breaks, the sense of technology progress (prognosis) as well as market niches.

Within the market niches, the best product-price decisions would be based on  $p(\bar{T})$  regression curves. The model presented is a powerful tool to enhance the manager's "science" component. It is up to the company manager's science (but also experience and even ... art!) to make the best marketing decision – in terms of the optimum unit price mixed with the most suitable product strategy – for the most successful marketing-mix and, finally, marketing strategy.

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## End Notes

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<sup>1</sup> The products' technical performance might be measured by several methods; we do prefer to apply the **DISTEH** method, which is an original method, based on author's own research [4, 6]. The method was developed by the author as an original method to assess the level of technical performance of products (goods or services) and technologies [4], within laboratories of Industrial Management Department from University "Politehnica" of

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Bucharest. The method was originally named DISTEH [1, p.18]. The influence of time factor is considered first time by Costake and Scarlat [2, p. 226, 233]. The method was tested in a number of practical training, consulting and research circumstances and continuously improved [6, 7].

<sup>2</sup> According to the *DISTEH* method, for any given product  $A_i$  ( $i = 1, \dots, m$ ), one might calculate a unique value associated to that product  $\bar{T}_i$ , value that allows the ranking of all the products considered (starting with the best on the top). The products are ranked starting from the best one (minimum  $\bar{T}_i$ ). The technical distance could be zero in an ideal case. Bigger the  $\bar{T}_i$  value, lower the quality of the product  $A_i$  and its technical performance. It should be mentioned that all the  $m$  products considered belong to the same category: they address to the same need (as mobile phones, for example). The method can also apply when the decision maker needs to select not the absolutely best product but the relatively best product [6, p. 372-373].

<sup>3</sup> Note that the product competitiveness is influenced by other factors, as well: the other components of the marketing mix (other than product and price); commercial policies in force in different economic unions or commercial zones; contractual provisions as the product delivery terms or payment conditions – even the currency used [5].

<sup>4</sup> See – for example: Kotler, P. 1993. Marketing Management. 8<sup>th</sup> Edition. Englewood Cliffs, New Jersey: Prentice Hall (Romanian version: Kotler, P. 1999. Managementul Marketingului. Bucharest: Teora Press); Chapter 19. Designing Pricing Strategies and Programs.

# The Holistic Perspective of Thailand Brand Meaning

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## Abstract

National image can significantly influence consumer perceptions of products and services in the global market. Previous research has mostly focused on the effect of country of origin on consumers' decisions and information processing, while overlooking consumers' holistic perspectives due to a lack of research exploring the abstract and contextual quality underlying the national image. Hence, this phenomenological inquiry was conducted with diverse participants in the United States in order to capture consumers' holistic perspectives of Thailand's image. An outcome of this research is the establishment of a typology that incorporates the two interrelated structures of people (living) and place, and reveals four dominant attributes of Thailand's image (Fun, Fulfilling, Friendly, Flexible). This development should enhance current understanding of Thailand brand positioning in a global market and ultimately contribute to the development of a more comprehensive national marketing strategy.

## Introduction

The global market has become more competitive with a variety of offerings from different places. Particularly in times of changes and uncertainty, many businesses are required to adjust their strategies to the diffusion of new demands and technologies. Though this attempt can greatly benefit consumers in having multiple alternatives, it also leads to complicated matters of criteria and priorities. Empirical evidences suggest that current consumers consider the factor of national image when making decisions about global products or services. Because an image of country-of-origin can have either positive or negative impact on consumers' perspectives, it is important to understand perceptions of country image in order to posit a coherent identity of products, services, or brands from the specific nation.

Brand meanings in the global market are generally driven by both the company's branding efforts and the images of country-of-origin. While the first factor rests upon the capability of individual firms, the second factor requires a synergistic effort at the national level to create a favorable image that can assist firms to leverage on the country's positioning (Maesincee, Nuttavuthisit, Ayawongs, and Phasukvanich 2003). As an example, Scotland assigned the advertising agency to create the meanings of "Scotland the Brand." They came up with the idea of associating the country brand with the images of integrity, inventiveness, tenacity and independence of spirit (Combes, Hibbert, Hogg, and Varey 2001). Unfortunately, many advertisers just take for granted that they already know about the national values and they can assume what relevant audiences believe about Scotland (ibid). To truly create the long-lasting relationship with customers, country branding effort should be developed based on a research of those residual attitudes and beliefs in people's minds about a nation.

Previous research has extensively examined the influences of country branding on consumer attitude formation and evaluation; or the importance of country of origin as an information cue for consumer decision making (Shimp, Samiee, and Madden 1993). Many studies have been conducted with an experimental, information-processing approach (Bikley and Nes 1982). Such approach aims to demonstrate the relationships between a national image and product evaluation in different conditions or situations. For instance, Han (1989) proposed the two cognitive models (i.e., the halo model and the summary construct model) which explain the ways in which country image influences product evaluation.

Some experimental research has focused on indicating the relationships between different factors (e.g., demographic variables, personality) and consumer preferences for foreign products. For example, Dornoff, Tankersley, and White (1974) claimed that females rated foreign products more highly than did males. Yet, this difference did not hold in the case of products made in more developed countries. Wang (1978) suggested that the more conservative people are, the less they prefer foreign products. The similar inverse relation occurs with level of

dogmatism and status concern (Anderson and Cunningham 1972).

Although it is pertinent that national image affects consumer perception toward products, such effect does vary in the different situations. Some experimental research conducted in the different settings produce contradictory results leading to questions about the methodological limitations. The country image is rather holistic and contextual since it depends on individual interactions with the social contexts. Thus, treating country image as an independent variable in either experimental research or traditional survey research can mislead the results of the research. Bilkey and Nes (1982) argued in their extensive review of the country brand effects that most of the studies were not quite realistic because they referred to national image as a solely separated cue for product evaluation. This methodological approach is bound to yield a significant cue effect that might or might not exist in reality.

Realizing this theoretical limitation, I proposed this research utilizing interpretive approach to examine consumers' holistic perspectives of the country images. Kotler, Jain, and Maesincee (2002) highlighted the holistic view as the key feature that represents broadening, dynamic, interactive, and integrative values of the current market. In this case of country image, consumers' holistic perspectives represent multi-layered meanings of the individuality, history, society, and culture. It is essential that both public and private sectors understand holistic meanings of the national image because current approaches in this time of change and uncertainty are based on interrelated influences of local, national, regional relations.

## **The Case of Thailand**

In the international market, "Thailand," as an umbrella brand, has been widely recognized in the food and tourism industries. Unlike other countries such as Japan, which is undoubtedly known for its high quality and reliability electronics, Thailand's positioning is rather unclear. The vague positioning is due to the fact that current areas of study and practice involving Thailand brand only place emphasis on production, sales, or market share, while discounting consumers' perceptions of Thailand as a national brand. This direction results in the multiple fragmented strategies created without a fundamental understanding of the market demand.

At the same time, it is possible that the ambiguity of Thailand brand meanings is due to the mixed holistic nature of the nation's characteristics. An image of Thailand appears in a form of "fusion" rather than rigid beliefs, opinions, or attitudes. Triandis and Gelfand (1998) emphasized contradictions and tensions of varieties emerging in Thai culture. This concept is demonstrated in consumer perceptions of Thailand ranging from excitement to tranquility and from the tangible to the intangible. One participant in this research stated:

"Thailand is an amazing place. Amazing in a sense that you have this juxtaposition of everything from an eclectic city to a remote beautiful resort. Umm... you see everything from 5 star cuisine to carts on the street. You see people running around and you see people who are more relaxed and laid-back. On the street, you see an elephant walking along the Mercedes. There is variety in the ways people live. I can't just pick one thing and have that be representative of Thailand because that's not. The notion of Thailand is diversity. For me, that's an amazing sensation."

While this mix can lead to the positive emotion such as amazing or wondrous, it is noted that without clear and concrete understanding, the "juxtaposition of everything" can also lead to negative responses like confusion, tension, or fear. In this research, one participant expressed her concern when experiencing the many differences in Thailand.

"I feel struggle in between like seeing diamond in the rough... It gets a dichotomy or tension.

Often I feel like "what just happened to me? who can I trust?"

From this case, we see that consumer perceptions can become the barriers that prevent the country from attaining a competitive positioning in the world market. One of the ways to deal with complex diversity is to better analyze different elements that integrate into a big picture of national image and inform consumers in advance about what country brand means. As for Thailand, I propose that the overwhelming experience can be overcome by providing clear information about the country features beforehand. One participant noted:

"I wish I could learn more about [Thai] cultures before I went there and I gotta learn it from Thai natives. I need level of preparedness."

Realizing the needs to compose and project the diversity of Thailand images in a clear and consistent way, I have initiated this research to systematically explore the different elements of Thailand from the consumer perspectives in an international market. As a part of the “Branding Thailand” project co-organized by the Sasin Graduate Institute of Business Administration and the Kellogg School of Management, this research aims to understand the demand of the international market so that the government of Thailand can develop a coherent branding strategy to enhance the global perceptions of Thai products and services and propose a more favorable image of the country branding. With global change and uncertainty, it is crucial that the country communicate a clear message about the national image positioning. In addition, with respect to the theoretical development, studying the various identities of Thailand provides a fertile ground for research on consumers’ holistic perspectives of the country images.

## **Methodology**

This qualitative research was conducted with thirty foreign consumers in the United States, one of the major markets that interact with Thailand through tourism, trade and investment. I used broad sampling criteria of consumers in order to capture as many different experiences and perceptions as possible. To represent the true nature of the market, these participants may and may not be users of Thai products or services. When interacting with the participants, I assured them that any identifying material in the research (i.e., their names) would be removed or disguised. In some cases, I asked for permission to make follow-up contacts in order for me to gain clarification on key issues, and also for any other pertinent feedback that the informants wished to provide.

Through thirty in-depth interviews, the studies yield a detailed qualitative account of consumers’ holistic perspectives. The results include intersubjective features underlying consumer perceptions rather than providing the scaling objective responses as derived from traditional research approach (Sherry 1983). The interviews ranged in length from thirty minutes to an hour. Sometimes I interviewed regular customers of the Thai restaurants and the owners of Thai restaurants so as to gain preliminary understandings of Thai food or Thai brand as presented to consumers via these outlets. Many times I visited the participants at home where they showed me pictures of the places in Thailand, souvenirs they bought, or cooking ingredients they got from the local Asian market. These in-depth interviews conducted in a natural setting, as opposed to laboratory experiments, yield a thick description of consumer experiences and present the context-dependent nature of the holistic perspectives. Following a phenomenological inquiry, I focused this study on understanding the differing holistic responses that emerge as patterns embedded within the situation. This approach helped me eliciting the meanings of Thailand’s image that connect people with the surrounding contexts.

Overall, the interview discussions began with a series of “grand tour” questions (McCracken 1988) concerning the participants’ backgrounds and the circumstances that brought them to their enactments with Thailand. I encouraged the participants to describe any situations or feelings that they typically thought of first. The purpose of this opening method was to set out a foundation for further dialogue about the specific perspectives. Subsequent interviews followed by asking the participants to describe their perspectives of Thailand, Thai products, or Thai services both in general and with specific details (e.g., specific stories, or even fantasies). Here, the descriptive questions flowed from the course of the dialogue, which was largely set by the participants and not from the predetermined path. Emic terms used by participants were further probed to elicit emergent meanings of the essential qualities of Thailand image that promote a particular character of consumer perceptions.

## **Interpretation of the Data**

I interpreted my verbatim transcripts from the interviews by means of a hermeneutical process, an iterative back-and-forth process of relating a part of a text to the whole (Thompson, Locander, and Pollio 1989). First, for each consumer I derived the case analysis and salient themes from an idiographic reading of a specific interview. Then I identified common patterns, referred to as “themes,” among interview transcripts (e.g., perceptions of eclectic vs. peaceful places in Thailand). This helped me to broaden the interpretive context. By tacking between personal

meanings expressed in the emic data (e.g., “I feel free”) and the etic constructs used to establish theoretical understandings of these themes in the consumer perspective (e.g., the theory of self-expression), the interpretation process unfolded in an organic way.

This interpretation has been continuously revised during the research process as additional information is collected. Data collection was enhanced and refined with ongoing analyses of themes and issues. Although texts are always open to multiple interpretations, it is imperative that the interpretations be consistent with the study’s underlying motivations and that they provide insight into the phenomena being investigated (Thompson 1990; Thompson, Locander, and Pollio 1989). The focus of my data interpretation is consistent with a fundamental aspect of phenomenological approach that aims to describe broad varieties of consumers’ holistic experiences and to illustrate complexes of pattern that outline the meanings of Thailand’s image.

### Consumers’ Holistic Perspective of Thailand Brand Meaning

From the data interpretation, I discovered the fusion of consumer perceptions of Thailand which is consistent with previous theories that associated Thailand with a land of diversity (Fieg 1976, Gannon 2001). Nevertheless, unlike many countries where diversities lead to a disintegration of people and culture, the diversity of Thailand is seen to be harmonious. The harmony is also witnessed in the balanced mix of consumer perspectives between the active and passive descriptions of Thailand (Maesincee, Nuttavuthisit, Ayawongs, and Phasukvanich 2003). One participant stated, “I think Thailand is like pop music ‘cause it’s like mellow but yet something you can dance too.”

When consumers think about the country image, they refer to the two interrelated concepts of place and people (or living status) (Kotler, Haider and Rein 1993; Kotler, Hamlin, Rein, and Haider 2002). In this research, consumers mentioned about the places in Thailand by demonstrating the eclectic (active) element (e.g., “a city of life”) and the peaceful (passive) dimension (e.g., “a soothing vacation destination”). Moreover, they illustrated the ways of life in Thailand by describing the dynamic (active) living (e.g., “an uptight business,” “a constant negotiation everywhere”) and the relaxed (passive) lifestyle (e.g., a “laid-back” people). By using a “structuralist approach” like that of Hirschman (1987) or Levy (1981), I have integrated these interrelated concepts of people (living) and place; and proposed a thematic typology that reveals four dominant perspectives of Thailand’s image: Fun, Fulfilling, Friendly, and Flexible [Figure 1]. An outcome of this systematic analysis not only illustrates the underlying structures of consumers’ holistic perspectives but also promotes a greater insight into Thailand brand image.

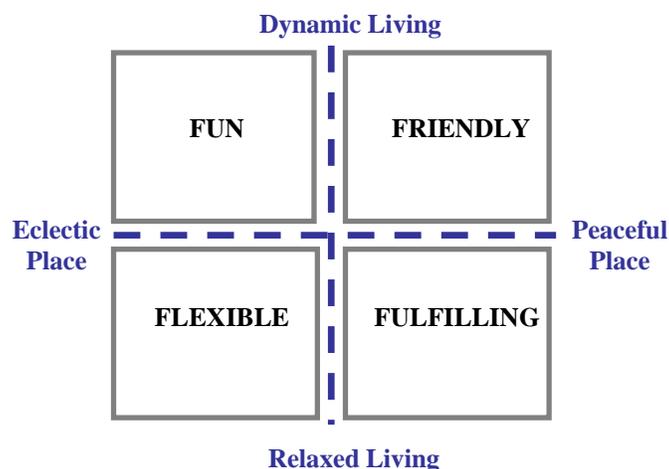


FIG. 1: A TYPOLOGY OF CONSUMERS’ HOLISTIC PERSPECTIVES OF THAILAND’S IMAGE

## **Fun**

Many participants particularly those who spent much time in Bangkok talked about the “fun” attribute of Thailand images. They regarded the *dynamic livings* in *eclectic places* which led them to feel the vibrant and entertaining experiences. The fun feeling more often occur when consumers engage with the circumstances through their attentions, interests, or excitements (Krugman 1965). One participant explained such involvement as “soaking it in” or “osmosis [the] feeling.”

“I think “Fun” is part of the culture. Thai people...they like to go out, celebrate, and have fun. It’s more open in Thailand. At the same time you have these fun places that cater to that. I think people [non-Thais] can almost ‘osmosis’ that feeling, you know. You just soak it in. They can sense that. They can realize that.”

This participant elaborated the ‘fun’ description by referring to the Thai people who enjoy the dynamic livings such as going out, celebrating, and having fun. This notion interrelates with the eclectic or “fun places” which cater to the fun experiences in Thailand. Like the concept of entertainment explained by Pine and Gilmore (1999), people absorb the experiences through their senses. The dynamic of people and place energizes consumers’ spirit as suggested by one participant:

“[Bangkok] is a city of life. There are many things going on which make me feel that I’m innocent (ha ha) and I want to just have fun.”

Feeling that [he’s] innocent, this participant was more open to absorb the new discovery and ready to simply “have fun.” Additionally, the nature of many places in Thailand facilitates the exploration as claimed by one participant; “Many places in Thailand have this adventurer’s spirit. It makes me feel like I want to discover or to explore...” Holbrook and Hirschman (1982) proposed that the entertainment feature stimulates the sense of explorations among consumers.

However, the eclectic place and dynamic people do not always present itself in a positive fun energy. Some participants saw these vibrant characteristics as the factors leading to the hectic conditions such as “problems with traffic in Bangkok and serious challenges with prostitution and AIDS.” In this research, I found that most of the people who expressed such concerns were the ones who have never been to Thailand. This might be explained by the stereotype concept and media influence which played a part in the overall image of the nation. Though the stereotypic features need have no carryover effect on a specific product of that particular nation, many times consumers use the national stereotypes to be a convenient heuristic to simplify their choices (Elliott and Cameron 1994).

In this case, I also found that participants who have been to Thailand or experienced Thai products were more likely to appreciate the variety that Thailand has to offer as well as the exotic attributes of the culture. This is consistent with the previously explained concept of consumer involvement which generates the positive fun feeling (Krugman 1965). Thus, it is important that the government find the way to overcome the negative images by presenting the positive aspect (i.e., fun) of the dynamic lifestyles in Thailand. To emphasize the “fun” element of Thailand brand meaning, experiential branding can be implemented by encouraging people to interact with the Thai product, people, and place. One participant mentioned about her fun experience gained from actually trying street food in Bangkok: “I couldn’t resist that smell of (umm) meatball on the street. So I tried it and I love it. Street food is so fun.”

## **Fulfilling**

In contrast to the ‘fun’ attribute of Thailand’s image, when consumers express awareness of the *relaxed living* and the *peaceful places* in Thailand, they acknowledge the ‘fulfilling’ element of Thailand brand meanings. This seems consistent with the concept of the desire to escape reality suggested by Holbrook and Hirschman in 1982. One participant claimed:

“When I was on that island, surrounded with nature...and very cordial people, I just forgot about time and my hectic life.”

The ability to escape from reality is evoked by the sense of nothingness illustrated through relaxed living and peaceful places of Thailand. Many of today’s marketers strive to achieve this serene feel that appeals to consumers who seek the peace of mind particularly in this world of turbulence. The fulfilling notion is exemplified in the comments of one participant’s remarks about the unique characteristic of Thai society and culture.

“Thailand is different from other countries in terms of social stability. Probably it’s due to the culture and personality because people are more relaxed. Umm... I think it’s part of Buddhism philosophy too. And in spite of many western influences, you still see serene scenes of temples and people living along the river. It’s very safe and stable. That’s the feeling that comes to my mind.”

Here, this participant appreciated the safe and stable feels induced by the rather passive personality of people (i.e., “more relaxed”) and similarly the peacefully “serene scenes” of temples and lives along the river. She saw this feature as relevant to the “Buddhism philosophy” which emphasizes the nothingness and harmonious living with/of the nature. In this research, many consumers referred to Thailand brand meaning by linking with the naturalness of people, products, or places. For example, one participant expressed: “Thai food in my mind is refreshing ...because it has a mix of fresh ingredients and herbs.”

#### **Friendly**

Consumer perception of the Thai friendliness emerges when they experience or associate with the attentive participation of people in a comfortable environment. This combination of *dynamic living* and *peaceful place* enhances the feelings of warmth, welcoming, and embracement. One participant described her view of the “friendly” element of Thailand’s image.

“When I think of Thailand, I think of friendly people and a warm, comfortable environment. I don’t know. I’ve never been to Thailand but I speak from my experience with Thai people and Thai restaurants (ha ha). You know, normally Thai restaurants are nicely decorated with those delicate souvenirs or something... the peaceful music. And I love their services. They are very nice, very attentive. I think this social aspect is an interesting part of Thailand”.

At the Thai restaurants, this participant noticed its relaxing atmosphere generated by the Thai traditional décor and music. Together with the active willingness to service customers, this consumer perceived the friendly feel from the relation of peaceful place and dynamic people.

As Thailand brand has been widely recognized in food industry, many consumers explained their holistic perspectives of Thailand’s image by elaborating on their views or experiences of the Thai foods. This approach is congruent with the technique in sociocultural research which utilizes one distinct metaphor to present its other bigger or overall phenomenon (Gannon 1994). Because metaphor is pervasive and fundamental in ordinary conceptual system, it represents the way in which people perceive, think, and act both within themselves and in relation to the other people or the world (Lakoff and Johnson 1980). An example is derived from Gannon (1994)’s study of French wine metaphor that illustrated on the five principle elements of wine (1. pureness 2. classification 3. composition 4. suitability and 5. maturation), which relatively identify the perspectives of French society and culture.

In this research, some participants identified their perceptions of Thailand brand meanings with a distinctive activity, phenomenon, or institution involving Thai food metaphor. One participant made observation of the way Thai foods are normally presented in the Thai restaurants;

“Thai foods certainly can represent the warmth of Thai family. Thai people always live in a big family which is comprised of many generations. They have a meal together with a lot of foods in the center.”

Through the food metaphor, this participant associated the shared combination of “a lot of foods in the center” with the unification of “many generation” of Thai family. Again, the notion of warmth and friendliness is illustrated by its relation to the dynamic living (i.e., “big family” “a lot of foods”) and the peaceful, harmonious setting (“a meal together”... “in the center”).

#### **Flexible**

Feelings of flexibility were expressed when consumers noticed the easygoing, *relaxed lifestyle* despite the complexly *eclectic environment*. Many participants were amazed with the flexible essence of the Thai-ness demonstrated through compromising relationships among the diversity of people, places, and situations. One participant made an illustrative comment on the free spirit of Thai people to live as they like by not having to identify with any specified social standards.

“I think Thailand is about freedom. Because I see a contrast of high-rising businesses and very poor circumstances there...food on the street. Traffic is terrible. It’s very exhausting, very hot, very humid. But people don’t seem to be that agitated. Day to day when you’re in the street people are very patient. You don’t hear the cars honking all the time. And you don’t see the poor there that are bitter because they are poor...unlike the other countries where you see the fights among people of different races or social classes. I was pretty amazed with this relaxed attitude in Thailand. It seems to me that they feel free to live as they like.”

This participant thought about the frenzied, eclectic places in Thailand by referring to terrible traffic, and “very exhausting, very hot, very humid weather”. Yet, he further described the surprisingly calm and cool lifestyles among people who simply continue on their ways of lives. Despite the obvious contrast between the rich and the poor circumstances, he did not feel the sense of bitterness. Such freedom and flexibility was perceived as the unique quality of Thailand image. The response is congruent with the theory by Fieg (1976) who proposed to depict the Thai values with the image of a rubber band because it represents a combination of loose and tight degrees of Thai behavioral freedom. With authority ranking, a subordinate adheres to an order from a superior and so the rubber band tightens. Yet, as the demand of the order has been met, one can return to their looser and more liberated behaviors. This metaphor of flexibility also illustrates the loose degree of relaxed living in the tight degree of eclectic place.

## Conclusion

National images exist for different consumers at different levels of meanings and they seem to appear in dissonance. However, in order to capture the best benefits of the country branding, it is important that we find the suitable mixes of the dominant values. Through a phenomenological inquiry and a systematic analysis, this research demonstrates a typology of consumers’ holistic perspectives of the country images (i.e., Thailand). The typology yields better understanding of underlying attributes (i.e., dynamic vs. relaxed living and eclectic vs. peaceful place) that influence the four dominant features of the Thailand’s image (i.e., Fun, Fulfilling, Friendly, and Flexible). Moreover, the study addresses the under-explored area of previous theories which mainly focus on consumer decision making and information processing while neglecting the holistic nature of consumer perspectives.

In practice, the typology assists the company in identifying and leveraging strong brand positioning in a global market. Knowing consumers’ holistic perspectives facilitates the company to establish experiential-driven strategies which helps sustaining long-lasting customer relationship. Synergizing the well-perceived meanings of Thailand brand images in the minds of consumers ultimately contribute to the development of a more comprehensive national marketing strategy.

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# **The Use of Marketing Audits as an Instrument for Enterprise Controlling Activities: Results from Czech Enterprises**

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## **Abstract**

Marketing (as a tool) has always been traditionally under estimated by Czech enterprises, while its significance under contemporary economic conditions based on market-oriented principles is steadily growing. In 2003, research into 276 such enterprises was performed with the aim of investigating and verifying the exploitation of marketing control mechanisms in Czech enterprises. This research was oriented above all on discovering whether Czech enterprises make use of so-called Marketing Audits within the framework of their internal control mechanisms. The essence of the problem was to discover the frequency of the occurrence of the use of such enterprise controlling mechanisms, what their content was, and also, whether these were predominantly internal or external audits.

## **Introduction**

The Marketing Audit is a control mechanism of the marketing behaviour of an organisation and ranks among the most significant elements of control mechanisms of the management of an enterprise, since its aim is to identify the problem areas of an enterprise and thus to create the pre-conditions for the correction of the same. It is concerned with controlling the actual state-of-affairs within an enterprise from both the internal and external perspective with the aim of increasing its competitive ability.

The Czech Republic, after the fall of Communism, found itself in a completely new market environment, where Czech enterprises were (suddenly) face-to-face with tough international competition. It saw the change from a planned economy, where enterprises were oriented on production and not on sales, to an economy based on market principles.

Over the course of the last 14 years, the representatives of Czech enterprises have been forced to master new marketing skills that were a matter of course for managers of enterprises conducting business in a market environment.

Marketing Control is not an equal partner to Financial Control in Czech enterprises for the ascertaining of the state-of-affairs within an enterprise. For this reason, this begs the questions: “What is the (current) state-of-affairs of marketing controls in Czech enterprises?” and “Do Czech enterprises exploit marketing control systems in the form of marketing audits – and if so, what is the composition of such an audit?”

### **Research Aim**

The aim of this piece of research was to ascertain, whether or not Czech enterprises conduct controls of their marketing activities with the assistance of marketing audits, and what was the most frequent composition of such a marketing audit?

## **Research Methodology**

Marketing Controls rank among the most significant aspects influencing the successful standing of enterprises in today’s contemporary entrepreneurial environment, marked as it is by rapid and frequent change. A whole range of authors have drawn attention to the fact that enterprise frequently used an incorrect approach in that they have based their decision-making processes on financial indices only, whereas what is decisive for the health and future of an enterprise is financial controls, and they have further recommended that, apart from financial controls, marketing controls should also be used as equal-value mechanisms. (viz: Kotler, P. 2000, Ward, K., 2003).

From the study conducted by D.W. Vorhies, M. Harker, C.P. Rao, (1999, p.1180) it flows that enterprises which are “marketing managed” and which exploit marketing principles, are more successful on the market, are better able to adapt to new conditions, and even demonstrate greater customer satisfaction.

V. Govindarajan, A.K. Gupta (1985, p.65), in their research into the behaviour of enterprises pointed out that those enterprises in which a built-in commercial strategy control system exists, are more efficient and perform better, which is reflected in increases in market share and higher profits. Marketing controls – as one of the significant factors capable of improving marketing activities, and thereby the effective performance of an enterprise, is also highlighted in the work of Morgan, N.A., Clark, B.H., and Gooner, R., (2002).

A whole range of authors, c.f. Kotler, P. (1998, 2000), Wilson, A.(1993), Brownlie, D. (1996), Macdonald, Ch. R. (1982), Mcdonald, Malcom, H. B. (1991), Tomek, J. (1999), and Lyková, J. (2000), form a consensus that the regular conduct of marketing audits is a necessary pre-condition for a well-functioning and prosperous enterprise. The actual content of such marketing controls is considered in detail by Kotler, P. (2000, p.213), Tomek, J. (1999), Lyková, J.(2000, p.13), and break down the elements of a marketing audit into environment, strategy, organisation, marketing systems, productivity, and functions – and point out that a marketing control system should include the control of marketing outcomes, the control of marketing benefits, and the control of marketing expenditures.

Marketing control in an enterprise should be conducted either in an external form, i.e. the outsourcing of such an audit to an external, professional firm – or in the form of internal audit, and this by a pre-determined person within the enterprise. The advantages and disadvantages of external as against internally-conducted marketing audits have been covered by a whole range of authors, e.g. (Kotler, P.1998), Brownlie, D. (1996), Ewert, G.A.(1997), Mcdonald, M.H.B.(1991), Means D.W.A.(1998).

#### **Hypotheses**

The following hypotheses were established for this piece of research:

**H<sub>1</sub>:** Marketing Control in the form of Marketing Audits in Czech enterprises is neither a frequent phenomena nor sufficient.

**H<sub>2</sub>:** Marketing Audits used for the control of marketing activities in Czech enterprises is neither complex, nor do they include all of the requisite areas.

**H<sub>3</sub>:** An external marketing audit is more complex than an internal audit

### **Characteristics of the Enterprises under Investigation**

The subjects of this research study were wholly owned Czech enterprises, while at the same time; Czech management teams managed the enterprises under investigation.

For reasons of a more detailed and punctilious investigation, the results of the research study were subdivided into individual problems and issues on the basis of the size of the enterprises in such a way that the interpretation of these outcomes be as comprehensive as possible. The enterprises were sorted according to size, i.e. on the basis of the number of employees.

Very Small Enterprises (VSE) were categorized as being those with 0-19 employees, Small Enterprises (SE) as those with 20-49 employees, Medium-large Enterprises (MLE) as those with 50-249 employees, and Large Enterprises (LE) as those with 250 and more employees. In the categorisation of these enterprises according to number of employees, we based ourselves on the definition of enterprises as quantified by the European Commission with the deadline for its use set from 1. 1. 1998 (The European Observatory for SMEs, 1997).

TABLE 1: ENTERPRISE CATEGORISATION

Enterprise Category:	Number of Employees:	2003 percentage
Very Small	0 - 19	41
Small	20 - 49	18
Medium-large	50 - 249	25
Large-scale	250 and more	16
		n=256

## Data Collection and Collation

The research study conducted in 2003 addressed enterprise drawn from the Czech Republic on the basis of a random selection process. The effort was that the representation of these enterprises from the point-of-view of their size as determined by the number of employees correspond to a certain degree to the distribution of enterprises in the Czech Republic, while at the same time preserving a certain degree of declarative ability of the result obtained.

The individual enterprises were visited on a personal basis, in the course of which the questionnaire submitted to them was completed together by the administrator of the questionnaire and the top management of the enterprise in question.

Students of the Faculty of Management and Economics, Tomas Bata University in Zlín were used in the process of data-acquisition – especially those drawn from the ranks of auxiliary scientific research staff, who had a shared role in the given research study.

## Research Study Outcomes

Based on the conducted research study, it was discovered that the majority of the enterprises addressed did not conduct marketing audits. As can be seen from the following Table 2, only 74 enterprises indicated that they use some such form of management tool. This is only 27% of these enterprises. Of these, 36 enterprises indicated that the marketing audit was resolved on the basis of an internal form, and 38 indicated that they made use of external marketing audits. It can therefore be said that, in these enterprises, external audits are used approximately as frequently as internal audits, while at the same time; it is clear from Table 1, that the larger the enterprise, the more frequent the occurrence of the use of external audits is.

For the Large Enterprise, half of them elaborated some form of marketing audit, where in the majority of cases this had to do with external marketing audits.

TABLE 2: NUMBER OF ENTERPRISES PERFORMING MARKETING AUDITS

Enterprise size	Number of Enterprises Performing Marketing Audits (MA)						TOTAL
	YES				NO		
	TOTAL		Internal	External	Abs.	%	
	Abs.	%					
Very Small	15	13	14	1	98	87	113
Small	11	22	7	4	39	78	50
Medium	26	38	11	15	40	58	69
Large	22	50	4	18	22	50	44
All	74	27	36	38	202	73	276

A further subject of these investigations apart from the frequency of the occurrence of marketing audits in Czech enterprises as one of the mechanisms of the (management) control system in these enterprises was, in the case that they do regularly elaborate such an audit, what made up its content?

In the following table, Table 3 shows the elaborated outcomes with a view to the informational presumptions for the given audit.

The most frequent item elaborated within an enterprise was data relating to the domain of marketing expenditures – where these analyses cover the number of sales personnel to the number of done deals over a period of time, the costs per sales employee as a % of overall sales, and the cost of sales support. All of the enterprises, without regard to size, indicated that these presumptions formed the basis of their marketing audit.

It can be considered that a very frequent item of the presumptions for a marketing audit is the analysis of marketing outcomes, which covers for example, customer penetration, customer loyalty, and average purchase volume. 91% of these enterprises indicated that these analyses were regularly elaborated as material for the marketing audit.

The content of the analysis of the marketing benefits is the saleability and financial performance of the product range and the “rentability” (return-on-investment) of sales trips, these analyses form the basis of marketing audits in 80% of the enterprises questioned.

A problematic area for Czech enterprises that use marketing audits as a form of control mechanism was shown to be the areas of marketing strategy and the behaviour of the given enterprise. Only 41% indicated that, an informational resource of the marketing audit was the analysis of their strategy/ies and the behaviour of the enterprise itself – whose content is the analysis of the competition, market share, market attractiveness, and macro-environment.

Based on the research study we performed, an interesting discovery was that it is not possible to talk about significant differences between small and large enterprises.

TABLE 3: THE USE OF INFORMATION ANALYSES FOR MARKETING AUDITS

Enterprise size	<b>The Use of Information Analyses for Marketing Audits (MA)</b>				TOTAL
	Marketing. Outcomes <i>Percentage</i>	Marketing. Benefits <i>Percentage</i>	Marketing. Expenditures <i>Percentage</i>	Marketing Strategy/ies <i>Percentage</i>	
Very small	93	53	100	33	15
Small	91	64	100	55	11
Medium	88	85	100	27	26
Large	91	100	100	55	22
All	91	80	100	41	74
	n=67	n=59	n=74	n=30	

In the following table, Table 4, the summary of the outcomes of the content of marketing audit are shown for those enterprises which regularly elaborate marketing audits – whether in the form of external or internal audits. Our efforts were to discover just which were the areas most frequently controlled by these enterprises.

For all 74 enterprises that indicated that they did perform marketing audits, it was noticed that the content of such an audit was a SWOT analysis of the enterprise. For 97% of these enterprises, this was composed of a SWOT analysis of their products. However, the majority of these enterprises completely lack SWOT analyses of their competition, market segment, and sales organisation, while for only 28% of them was a component of the marketing audit a SWOT analysis of their geographical location and area.

The incomplete use of marketing audits performed by Czech enterprises is shown by the outcomes regarding the individual elements of marketing audits in the following table, Table 4. For the majority of the elements of a marketing audit, less than 50% of these enterprises indicated that they make use of them. The most frequently used, i.e. in 53% of these enterprises, elaborate an audit of their marketing strategy/ies. This result however, does not completely correspond to the finding that (Czech) enterprises perform analyses of their marketing strategy/ies and behaviour the least.

TABLE 4: COMPOSITION OF MARKETING AUDITS IN CZECH ENTERPRISES

Marketing Audits Composition	N <sup>o</sup> . of Enterprises	% of Overall Number of 74 Enterprises Using MA
SWOT Analysis of their own company	74	100
SWOT Analysis of their sales organisation	32	43
SWOT Analysis of the competition	36	49
SWOT Analysis of their products	72	97
SWOT Analysis of their geographical location and area	21	28
SWOT Analysis of market segments	35	47
Marketing Environment Audit	37	50
Marketing Strategy/ies Audit	39	53
Marketing Organisation Audit	27	36
Marketing System Audit	25	34
Marketing Productivity Audit	38	51
Marketing Functions Audit	29	39
<b>OVERALL N<sup>o</sup>. of Enterprises:</b>	74	X

Table 5 shows a summary of the outcomes regarding the content and composition of marketing audits established by the enterprises being tracked. It records the number of enterprises for which the marketing audit is composed of less than 50% of the suggested items, and the number of enterprises in which, on the basis of the research study, it was found that the given audit contained more than 51% of the said items.

The outcomes of the content and composition of these marketing audits were also investigated from the perspective of whether these involved external or internal marketing audits.

TABLE 5: NUMBERS AS A PERCENTAGE OF AREAS INCLUDED IN EXTERNAL AND INTERNAL MA

	N <sup>o</sup> . Of areas Included in MA in these Enterprises					OVERALL N <sup>o</sup> . of Enterprises:
	All areas of MA	Less than 50%		More than 51%		
		Abs.	%	Abs.	%	
External Marketing Audit	-	13	34	25	66	38
Internal Marketing Audit	-	27	75	9	25	36
<b>OVERALL N<sup>o</sup>. of Enterprises:</b>	-	40	54	34	46	74

For 54% of these enterprises, it was found that the audit as set up, contained less than 50% of the suggested items (entries). Should we look at whether these were for external or internal marketing audits, we are able to state that we can meet with less than complex marketing audits in enterprises which establish such an audit on the strength of their own efforts. For 75% of all enterprises that indicated that they use internal marketing audits, the given audit contained less than 50% of the suggested item entries.

On the other hand, for enterprises making use of external marketing audits, these audits contain 66% more than 51% of the suggested item entries.

### Summary of the Outcomes of this Research Study

There can be no doubt that marketing in the contemporary entrepreneurial environment belongs among the most significant factors influencing the success of an enterprise and its standing as against its competition (competitors). For any activity whatever to be of high quality, it is necessary that it be controlled.

The aim of this research study conducted into 276 Czech enterprises was to discover whether these enterprises perform controls of their marketing activities in the form of marketing audits, and if so, what the content and composition of such an audit was and also, whether Czech enterprises make more (or less) frequent use of internal as against external marketing audits. An interesting discovery was also the verification as to whether external marketing audits are more complex – and therefore more professionally elaborated than internal audits.

On the basis of the elaboration of the outcomes of this research study, which was oriented on the use of the principles of marketing audits as one of the mechanisms for controlling a Czech enterprise's activities, it is possible to respond to the hypotheses set out in the Introduction.

Hypothesis H<sub>1</sub> was accepted. Marketing Control in the form of marketing audits is neither frequent enough nor sufficiently elaborated in Czech enterprises. The research study outcomes also indicated the fact that, for more than 73% of these enterprises, marketing audits are not performed. The occurrence of marketing audits increases in correlation to the size of the enterprise. For 50% of the Large Enterprises, with more than 250 employees, marketing controls in the form of marketing audits are performed; however this number does not indicate an overall good-quality situation as regards the frequent incompleteness of the occurrence of marketing control systems in Czech enterprises.

Hypothesis H<sub>2</sub> was confirmed, marketing audit used for control of marketing activities in the enterprises investigated is neither complex nor does it cover all areas.

The research study outcomes indicated that the underpinning information for marketing controls in the form of individual analyses is often not available in Czech enterprises. In Small and Medium-large Enterprises the situation is even worse - which may be associated with the certain time and financial demands made by the processing of such analyses. From the outcomes of the use of the individual forms of analysis as information resources for marketing audits it also is clear that these enterprises make use of them predominantly for information for the analysis of marketing expenditure, while at the same time, the least used is that for establishing analyses of marketing strategy/ies and the behaviour of the enterprise.

Marketing audits in the majority of Czech enterprises do not contain even half of the suggested control areas.

Hypothesis H<sub>3</sub> – it is necessary to accept this on the basis of the outcomes of the research study. Externally performed marketing audits demonstrate characteristics of a greater degree of complexity; more frequently, these audits include more of the suggested areas of investigation, from which may be judged their greater degree of quality.

In conclusion, it is possible to state that for Czech enterprises, marketing controlling is an undervalued and underestimated tool, and evidently thus does not belong, as does financial controlling, to their basic information database – which would be of assistance to the management team representatives of the given enterprise in uncovering both the current and future situation of that enterprise.

Equally, it can be stated that even for those enterprises which have established marketing audits, the controlling function is infrequently based on a sufficiently high-quality base that is based on individual analyses (as set out above – viz Table 4), and the marketing audit often does not contain even half of the suggested areas.

External audits are shown to be of better quality; they are more complex and cover a greater range of the suggested areas. Large Enterprises make more frequent use of external forms of marketing audits than do smaller enterprises, which could be a consequence of the fact that the information-base of the marketing audit is more extensive and therefore, it can be assumed, of better quality.

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# Transfer Pricing: A Cost of Resource Approach

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## Abstract

For a growing number of multinational companies the determination of appropriate prices to charge for interdivisional transfers of goods and services across national borders is becoming increasingly challenging as they attempt to balance the disparate objectives of minimizing overall tax liability while maintaining cost control and suitable measurement of divisional operating efficiency. Each of the more traditional approaches to the pricing of transfers -- market price, resale method, cost-plus -- has limitations, especially when applied to transfers across national borders. This paper suggests an approach designed to satisfy the taxing authorities in each of the countries involved, while serving the cost management objectives of the overall company as well as the individual profit centers. The approach blends elements of both the resale and cost-plus methods, and introduces the added factor of time-weighted capital investment.

## Introduction

There are special problems in evaluating the performance of business segments when goods and services are transferred from one division of a corporation to another. Since the selling and the buying divisions are related to one another as parts of the same company, transfer prices may not be subject to the same market forces that apply to parties who negotiate with each other at arm's length.

While interdivisional transfers have no direct effect on the overall company's profit, they have a substantial impact on the individual reported profit of each of the two profit centers involved, and thereby on performance measurement and motivation of division managers to control costs, maximize operating efficiency and achieve goal congruence. However, motivation and related benefits of autonomous decentralized management often become secondary where the divisions of a multinational corporation transfer goods and services across national borders.

In determining transfer prices, multinational companies tend to focus on maximizing overall corporate profit by dictating transfer prices that minimize taxes, import duty, tariffs, and risks associated with fluctuating foreign exchange rates. However, as the practice of "manipulating" (or what might more diplomatically be called "managing") taxable income has become more commonplace, so has the development of tax laws and regulations to impose constraints on otherwise arbitrary transfer price-setting policy.

For multinational companies, these two objectives -- cost control and operating efficiencies on the one hand, and the maximizing of overall corporate profit on the other -- are generally *not* compatible; it is unlikely that transfer prices designed to meet one objective will satisfy the other.

This paper examines an approach to transfer pricing which has been adopted by a large multinational company to meet the objective of goal congruence while, at the same time, satisfy tax authorities in both the seller's and the buyer's jurisdictions.

## Current Approaches to Transfer Pricing

Where the majority of a business unit's sales are made to unrelated parties at arm's length, the market price charged to external customers generally provides an appropriate basis for setting the price of goods and services transferred to a sister division. Even when the buying and selling divisions reside in different countries, market prices are usually accepted by taxing authorities in both jurisdictions. However, an alternative to market-based transfer pricing is needed when market prices are unavailable, or when their validity is impaired because the particular product sold to an affiliate differs from the one sold to external customers, or is sold under different payment terms, warranty conditions and the like.

In the U.S., Section 482 of the Internal Revenue Code establishes a hierarchy of valuation methods to be used if market prices are unavailable: The preferred alternative is the “resale price” approach in which a transfer price is determined by working back from the price charged by the buying division to its external customers. As an example, assume that the selling division (Division “S”) manufactures and transfers a product to a buying division (Division “B”), which further processes the product at a cost of \$20 per unit and then resells it to outside customers at a price of \$100 per unit. B’s normal gross profit on other products sold to external customers is 35%. Under the “resale approach”, the transfer price would be calculated by subtracting from the \$100 selling price the \$20 additional cost plus \$35 in gross profit, resulting in a transfer price of \$45. If the resale price method is not applicable, then the likely alternative is the cost-plus approach in which an “appropriate” markup is added to the seller’s product costs.

If market prices are not available and a cost-plus method is used as the alternative, most income tax authorities tend to use full absorption cost computed under conventional cost-accounting principles, and allow (or require) the addition of a reasonable profit margin. The general rule is that the mark-up percentage must be at least as great as that earned on other domestic business of the selling division. Where used, such margins are applied as a kind of secondary overhead charged at a uniform rate against all expenses. This process of applying a uniform profit margin against all recorded expenses is analogous to the commonly used approach for allocating overhead on the basis of direct material or direct labor.

Where the resale price method is used, the buyer’s profit margin on sales must be no greater on transferred goods than on comparable goods sold to external customers. Applying a common profit margin to two disparate operations which account for different proportions of the operating cycle makes the assumption that capital costs accumulate at the same rate as product costs such as direct labor, direct materials and traceable overhead. Typically, they do not. While direct material costs are incurred at the time of purchase, most labor and manufacturing overhead costs are incurred during the generally short period in which work is in process. In contrast, a significant portion of capital costs are incurred while the product is just “sitting” in the form of either raw material or finished goods inventory -- or after it has been sold but before receivables have been collected.

From an economics perspective, the operating cycle may be viewed as a process in which various sums are advanced from time to time to cover costs as they accrue, to be recovered from the proceeds of sale to the final consumer. The average period-of-production concept, defined as the average time a dollar advanced is outstanding before it is collected, has played a central role in the development of capital theory in economics, and as “duration” in modern financial economics. In determining transfer prices, segmented periods within the operating cycle provide an appropriate basis upon which to allocate costs of capital (University of Texas, 2000). But, accounting systems which make explicit provision for the cost of capital in computing product costs remain a rarity (University of Pennsylvania, 2000). While the practice has been endorsed by the Cost Accounting Standards Board in CASB Standard 414, it is not acceptable under generally accepted accounting principles (GAAP) required for financial reporting. And, since inventory valuation for financial reporting remains a major requirement for most cost accounting systems, the practice has not been widely adopted.

An analogous procedure is widely used by regulatory bodies in determining the “cost of service” for public utilities under their jurisdiction: Generally, the calculation involves the use of a rate base, which is a measure of the amount of capital employed, multiplied by a rate of return -- usually an approximation of the cost of capital -- to determine an allowed-return component which is added to operating expenses to arrive at an allowed cost of service (Halperin and Sprindi, 1996).

#### **A Blended Approach**

The approach described here is not a completely new and different one, but rather a blend of the resale method with the cost-plus approach, which takes into account the cost of capital in allocating the excess of revenues over traditionally-defined accounting costs. The process can be outlined as follows:

The transfer price is arrived at by adding to the seller’s product cost through the point of transfer (i.e., labor, materials, and manufacturing overhead) a portion of the profit realized when the end product is sold to external customers. The amount of that profit is determined by subtracting from the resale price (i.e., the price charged to external customers) the total of all manufacturing, selling and administrative costs incurred by both divisions – as if there was a single operating company without profit center subdivision. The portion of that profit

that is added to the seller's product cost in arriving at the transfer price is determined on the basis of time-weighted capital investment: the cost of capital employed through the point of transfer is divided by the total cost of capital employed through the point at which payment is received from the external customer.

By way of illustration, the example that follows is based on the procedure used by a real multinational company, but with dollar amounts that are hypothetical. For computational convenience, it is assumed that opening and closing inventory balances remain the same for both buyer and seller of the transferred goods. Monetary amounts for both countries are expressed in U.S. dollars.

The company, headquartered in the U.S., manufactures and sells a small consumer durable both in the U.S. and in an Asian subsidiary, which was originally established to qualify for the lower rate of customs duty applicable to parts as opposed to finished products. Manufacturing operations include the machining of parts, all of which occurs in the U.S. plant facilities. Some of the machined parts are exported to the Asian subsidiary, which assembles the parts into finished product, and sells 10,000 units per year to its domestic Asian customers at a price of \$140. The remaining parts are assembled and sold in the U.S.; annual U.S. sales of the finished product are 100,000 units at a price of \$100 per unit.

As mentioned earlier, the determination of transfer prices takes into consideration the cost of time-weighted capital investment which is comprised of two components. The first of these is the investment in working capital, which represents the amounts advanced at various stages of the operating cycle, including production, sales and collection of receivables. The second is the investment in the plant facilities that are used in the production and warehousing of raw materials and finished product.

With regard to the investment in working capital, raw materials are purchased and held in inventory an average 60 days. The machining of material into parts is completed in six days. Assembly of the product destined for the U.S. market follows immediately, and is completed in another two days. Parts destined for the Asian plant are shipped immediately after machining, but spend three days in transit and an additional 15 days in parts inventory prior to assembly. The assembly operation in the Asian plant takes two days, as it does in the U.S. Both plants keep approximately 24 days' sales in finished goods inventory, and carry receivables approximating 45 days' sales.

Denoting the date when machining is completed and the parts are transferred from the U.S. to the Asian plant as day "T", a calendar for the production/sale process as it is carried out in the two countries is shown in Table 1, below.

TABLE 1: OPERATING CYCLE

	<u>U.S. DIVISION</u>	<u>ASIAN DIVISION</u>
Raw material inventory received	T-65	-
Raw material inventory paid for	T-35	-
Production process started	T-5	-
Machining of parts completed	T	-
Parts shipped and duties paid (same day)	-	T
Parts inventory received		T+3
Assembly starts	T+1	T+19
Assembly completed	T+2	T+20
Goods sold	T+26	T+44
Payment received	T+71	T+89

Note that from the viewpoint of working capital consumption over time, an additional three days of shipping time plus 15 days of "waiting time" are incurred in the case of the Asian operation. The amounts representing the cost of investment in working capital are shown in the first part of Table 2, below.

The second investment component is the investment in fixed asset plant facilities. The cost of the U.S. and Asian plant facilities is \$2 million and \$150,000, respectively. In applying a cost of capital component to the product, a hypothetical annual rate in the U.S. of 12% is used. The second part of Table 2 illustrates the manner in which the time-weighted investment in capital facilities is calculated:

TABLE 2: TIME-WEIGHTED INVESTMENT CALCULATION

	NUMBER OF DAYS	WORKING CAPITAL INVESTED PER DAY	TIME WEIGHTED INVESTMENT
Investment in Working Capital Assets:			
T -35 to T -36	30	\$12.13	\$363.90
T -5 to T	6	65.06	130.12
Investment at point of transfer			
T+1 to T+2	2	65.06	130.12
T+3 to T+26	24	73.18	1,756.32
T+26 to T+71	45	100.00	4,500.00
Total Working Capital Investment			<u>\$6,958.42</u>
Investment in Long-term Capital Assets:			
Raw Material Storage Facility			\$829.55
Machinery and Plant			3,318.15
Investment at point of transfer			
Assembly Plant			1,825.00
Finished Goods Storage Facility			912.00
Total Fixed Asset Investment			<u>\$6,884.73</u>
Grand Total – Time-weighted Investment			<u><u>\$13,843.15</u></u>

The transfer price is computed in Table 3: Part A computes the time-weighted investment to the point of transfer, and continues through the point of sale. The ratio of the former to the latter is then calculated. Part B computes the unit profit on external sales by subtracting from the selling price the total traceable costs (including selling and traceable administrative expenses as well as manufacturing costs) together with an allocated amount of corporate administrative expense. The allocation of the latter is made on the basis of direct labor. The resulting profit figure is then prorated in Part C on the basis of the ratio determined in Part A, and added to the costs booked to the point of transfer (Part D) to arrive at the transfer price (Part E). In effect, this approach establishes a mark-up over accounting costs that takes into consideration the cost of the capital employed in production, inventory and receivables.

TABLE 3: TRANSFER PRICE COMPUTATION

A. Investment Related to Goods Transferred as a Percentage		
of Total Investment		
Working capital:	T-35 to T-6	\$363.90
	T-5 to T	208.08
Fixed Asset Investment:		
	Raw Material storage	829.50
	Machinery and plant	3,318.18
Total Investment on Goods Transferred		<u>\$4,719.71</u>
Total Investment on Goods Sold		\$13,843.65
[Ratio: $\$4,719.71 \div \$13,843.65 = .3409$ ]		
B. Profit per Unit on Transferor's Domestic Sales		
	Selling price	\$100.00
	Total of costs booked	<u>( 83.33)</u>
	Profit per unit	\$16.67
C. Pro-rata Portion of Profit to Point of Transfer		
	$(\$16.67 \times .3409)$	\$5.68
D. Product Costs Booked to Point of Transfer		
		57.09
E. Transfer Price		<u><u>\$62.77</u></u>

In this example, the rate used to calculate the cost of capital in both divisions was the domestic rate applicable to the selling division. Since returns on investment may differ between countries, a refinement might be the application of separate rates to the investments made in each of the two divisions. As a further refinement, the element of risk might be quantified and factored into the computation. Though variations of this type may be useful in specific instances, such complexity would seldom be called for where the purpose is the relatively simple one of allocating tax liability fairly (Shapiro and Mantegani, 1998).

An issue which this model does not address concerns the fair allocation of economic rent derived from access to resources which, because of proprietary control through patent protection and the like, are available at a cost that is well below market. Cost-based rules, such as those adopted here, will fail to take into account such unbooked but nevertheless real economic cost. Where this would cause income to be inappropriately allocated, a fair charge for the use of such resources will shift income back to the selling division (Halperin and Sprindi, 1996).

## Concluding Observations

This paper outlines a transfer pricing model which uses of the time-weighted investment measures to allocate income and provide a basis upon which to establish and support the amount of profit to be added to accounting costs in arriving at an economically and politically fair and defensible transfer price.

While such an approach may not appeal to some corporate taxpayers who prefer using arbitrary techniques to allocate large portions of income to low tax-rate jurisdictions, it is a credible approach that stands a good chance of being accepted globally, and indeed has already been tested both in the U.S. and in at least one non-U.S. country.

Moreover, it provides a basis of allocation which should minimize risks of double taxation, and be neutral in its effect on location: while firms may be attracted or repelled by tax rates, the attraction or repulsion is not accentuated by the income allocation method employed. As such, models of this kind should be considered in forming the basis for international agreements on income-allocation rules, which, in view of the rapidly increasing globalization of commercial enterprise, are likely to become a reality in the foreseeable future.

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## End Notes

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# Unified Classification of B2B e-Marketplace Business Models

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## Abstract

No single B2B (Business-to-Business) e-marketplace model can address all the requirements of a company, and different e-marketplace types will complement each other. It is therefore needed to clarify the differences and contentious issues in e-marketplace business models in order to better understand and make a right decision. Research into e-marketplaces has occupied a prominent position in managerial and technological studies resulting in a vast and diverse literature. However, no articles organizing and discussing the contradictory and contentious issues in the literature can be found. In an attempt to cut through the confusion and differences in the literature as well as to provide valuable insights into a taxonomic resolution to scholars and practitioners, this paper examines and categorizes the issues and then provides a topical discussion about them. In addition, the paper develops three revised taxonomies extending and augmenting prior taxonomies for e-marketplace business models.

## Introduction

One of the casualties of the great dot-com shakeout of 2000 has been the B2B e-marketplace. In early 2000, third-party independent e-marketplaces looked like the wave of the future. However, despite the significant venture capital invested in third-party e-marketplaces and the thousands of e-marketplaces formed, real success stories are hard to find [3,6]. Then, the investment money available for dot-com businesses was drastically reduced in 2001 [24]. The third-party e-marketplace valuations subsequently plummeted, pushed further down by the emergence of well-financed consortium players such as Covisint, which promised higher volumes and greater liquidity industries. At the same time, major firms like Cisco Systems, Wal-Mart and Eastman Chemical moved rapidly to implement private exchanges. But because no single e-marketplace model can address every one of a company's buy-and-sell requirements, it is increasingly clear that most organizations will need to work concurrently third-party, consortium, and private e-marketplaces, even though the answer differs from company to company. These e-marketplace types will complement each other rather than compete [3]. Therefore, it is necessary to clarify the differences and contentious issues in e-marketplace business models and transaction mechanisms in order to better understand and make a right decision.

Research on B2B e-marketplaces has occupied a prominent position in managerial and technological studies from the late 1990s to the early 2000s resulting in a vast and diverse literature. The starting point for this paper, though, is the contention that no articles organizing and discussing the contradictory and contentious issues in the literature can be found. This paper aims to cut through the confusion and differences in the literature as well as to provide valuable insights into a taxonomic resolution to scholars and practitioners. For that purpose, this paper investigates and categorizes the issues, and then provides a topical discussion of them through the literature review. In each main section of the paper, we begin our discussion by building revised taxonomies extending and augmenting prior taxonomies for e-marketplace business models. These revised taxonomies serve to provide a framework for our examination of the topics. Then, we examine and categorize the contentious issues within the framework, and then provide our findings and discussions about them.

## Contentious Issues in e-Marketplace Business Models

### A Unified Classification of the e-Marketplace Business Models

In the din and noise of B2B e-marketplaces, there is an amount of confusion about what the different e-marketplace business models are, where they add most value, and how profitable and defensible are they likely to be [19]. There are also wide variety of synonyms for e-marketplaces: electronic marketplace, electronic market, electronic intermediary, cybermediary, net market, net marketplace, digital marketplace, virtual marketplace, procurement marketplace, market maker, exchange, trading exchange, digital exchange, e-hub, trading hub, market site, market space, trading networks, fat butterflies, vortex, and market tone.

In addition, there exist many different categories, taxonomies, classifications, typologies, or types of the e-marketplace business models, based on different viewpoints, criteria, or dimensions. It is becoming increasingly difficult to force them into a single category. Furthermore, not only scholars and practitioners use different terms and taxonomies for the same concepts or business models, but they also give different definitions or meanings to even the same terms and models, which gives much confusion [3, 5, 7, 9, 12, 27, 28]. Despite earlier attempts to classify e-marketplaces as vertical (vortal) and horizontal (hotal or functional), recent findings showed that products and services in both types are often traded within the same e-marketplace [8, 11]. Instead, one of the most commonly accepted classifications for e-marketplaces is the one by the ownership (or governance) model or the participant model (i.e., the number of participating buyers and sellers). Drawing on both of them, in this paper, we consolidate the different categories into a unified classification that is presented in Table 1 and act as a framework for our discussion in this section.

TABLE 1: A CLASSIFICATION OF E-MARKETPLACE BUSINESS MODELS

Ownership	Participant	Publicity	Neutrality
Third-Party	Many-to-Many (M:M)	Public or Open	Neutral or Two-Sided (Independent)
Consortium	Some-to-Many (S:M)	either Public or Private	Biased or One-Sided (Buy-Side or Sell-Side)
Private	One-to-Many (1:M)	Private or Proprietary	Biased or One-Sided (Buy-Side or Sell-Side)

### Third-Party e-Marketplace vs. Portal

Third-party, neutral, open, or independent intermediaries in Table 1, typically hosted and operated by dot-com startups, bring multiple buyers and sellers together in one central Internet-based market space and use various transaction mechanisms to mediate any-to-any transactions among businesses [19, 26]. Each e-marketplace has its own specific business processes to run transactions and uses methods or tools to enable these processes [4]. An e-marketplace not only lets its members buy and sell goods and services, but also enables them to engage in building and participating in communities with others [14]. The widest variety of participants maximizes access but makes deep collaboration difficult [3].

Third-party e-marketplaces mobilize one of two strategies. The first is to enable online purchasing at predetermined fixed prices. These types largely make money on transaction fees or margin. These e-marketplaces are rarely anonymous, allowing a certain level of reciprocity between organizations. By allowing sellers to reveal their identity, reputable suppliers can still leverage their brand name while communication may occur before purchasing. In addition, an organized search engine makes finding products easy through a robust online catalog, automating the purchasing process from requisition to payment, and making purchasing possible. Finally, the e-marketplace directly addresses reciprocity concerns by monitoring every step of the fulfillment process, streamlining the business processes and supply chain, notifying organizations if any problems occur, and providing order fulfillment and status information [11].

The second strategy is to offer posted inventory or posted price (if available) and link buyers and sellers to conduct offline negotiations. This type of strategy often employs a subscription or posting fee [1]. However, some [23, 30] argue that if buy-and-sell orders after the search for catalogs should be transacted offline rather than online

or not through the transaction system of the e-marketplaces, then the site is not an e-marketplace. It is, instead, an infomediary, a directory service, a post-and-browse, a bulletin board or a community portal with contents such as product, price, and company information. This argument is based on the general definition of the market or marketplace; “A marketplace as a historically evolved institution allows customers and suppliers to meet at a certain place and at a certain time in order to communicate and to announce buying or selling intentions, which eventually match and may be settled” [16]. This definition is also corresponding to the four distinguished phases of market transactions: information, negotiation, settlement and after sales [13, 15, 16]. Portals support only the information phase. They bring together buyers and sellers in commerce-oriented settings, but do not enable negotiation transactions online.

On the contrary, others [15, 16, 26] classify the content and community portal where bring together buyers and sellers in commerce-oriented settings, but do not enable negotiation transactions, as one of the e-marketplace models. Content and community portal is primarily a structured bulletin board on the web where authorized members of the e-marketplace can post expressions of interest (instead of catalogs) or offers to buy and sell. Most portals provide a main screen that lists members’ postings by one or more categories. Since communications between users of the post-and-browse feature are critical, e-mail or instant messaging services is provided. In the portal, prices and terms are negotiated for each trading through a one-to-one, anonymous negotiation like over-the-counter market in the securities industry. This is the ideal mechanism for very fragmented markets with non-standardized products because each contract is quite different and requires one-to-one negotiation [26]. In addition, Schmid and Lindemann [25] state that an e-marketplace supports all the phases of market transaction or at least the information phase.

Drawing upon both arguments, we can conclude that portals are e-marketplaces if they facilitate the “online” negotiation and settlement through the transaction system of the portals. Otherwise, they are just contents and community portals.

#### **Public vs. Private Consortium e-Marketplaces**

Consortium-led, industry-sponsored, or affiliated e-marketplaces share their ownerships and common infrastructures between industry leaders, typically the big brick-and-mortar companies, and the technology platform providers. They are buyers-driven (buy-side, buyer-oriented, buyer-centric, buyer-focused, buyer-specific, buyer-biased, or buyer-managed), sellers-driven (sell-side, seller-oriented, seller-centric, seller-focused, seller-specific, seller-biased, or seller-managed) or pulled from both sides [5].

In most literature, the consortium e-marketplace is commonly classified into a public model lined up with the third-party e-marketplace. It might offer almost as much collaborative capability as private e-marketplaces, but at the expense of standardizing processes across members. Consortium e-marketplaces give individual members access to each other’s trading partners. They might be open to all and allow other companies to join the e-marketplace, which broadens access [3]. But some of them might be closed and proprietary for a specific network of suppliers. These are sometimes not discrete and they may overlap. For example, Covisint is a private, consortium e-marketplace where buyers may communicate directly with selected suppliers . Therefore, a consortium e-marketplace is public, private [24], or both sides [3].

#### **Private e-Marketplace vs. End-to-End Trade Exchange**

A private, dedicated, or proprietary e-marketplace (private trading network or private trading exchange) is owned and operated by a single large company that acts as either a single buyer or a single supplier. It creates values for participants by making existing processes more efficient - enhancing offline trading relationships between buyers and sellers through automation and integration. Businesses seeking to reduce trading costs through collaboration instead of competition use private marketplaces. A private marketplace likely acts as a technology partner offering buyers or sellers access to B2B applications and infrastructures that enable greater process and data coordination with their established trading partners.

Private e-marketplaces typically offer a customizable interface and can support deep collaboration between supply-chain partners. They provide access to the company’s qualified supplier base or known customers, but do not enable companies to look beyond the trading partners they already know [3]. Businesses have established relations with their suppliers, and the trust engendered by reliable performance and commitment over the long term may be more valuable to firms than any short-term price advantages offered by the supposedly neutral marketplaces.

Indeed a new trend in the B2B electronic trade arena is the rise of collaborative commerce where networks are used for far more than simple trading support. Joint product design, more tightly integrated inventory databases, and other forms of coordination between producers and suppliers occur over private e-marketplaces [29]. A private e-marketplace affords the enterprise the opportunity to streamline all interactions with customers and suppliers in a secure way, without worrying about what competitors might find out [18].

Some researchers and practitioners, however, do not encompass the private e-marketplace in their definitions of e-marketplaces [2, 19] or clearly exclude them from e-marketplaces [1, 16, 26] because of one of the following reasons:

- Private e-marketplaces do not bring “multiple” buyers and sellers together or many-to-many participants.
- They do not play the role of “intermediaries,” but act as a direct-trade model.
- “One-to-one” interaction (communication, trading, or connection) for an individual transaction does not meet the definition of e-marketplace.
- E-marketplace business models have been rapidly evolved and expanded to incorporating new models, e.g., private e-marketplaces, since the time when the literature published especially before and around 2000.

Scully and Woods [26] argue that one-to-many private e-marketplaces are not the market or e-marketplace; “The important point, which differentiates an exchange from other B2B e-commerce companies, is that an exchange involves multiple buyers and sellers (i.e., aggregation) and it matches buy and sell orders in accordance with the rules of the e-marketplace (i.e., matching), and provides post-trade information. One should compare this with the e-procurement process of one company, say General Motors, which sets up a web site with an auction process for suppliers to bid on contracts with General Motors. This is not an e-marketplace because there is only one buyer. Similarly, a business that offers goods or services for sale to other businesses, over the Internet, is not an e-marketplace even if it provides a price-setting mechanism (e.g., auction) that is normally associated with an e-marketplace because there is only one seller.”

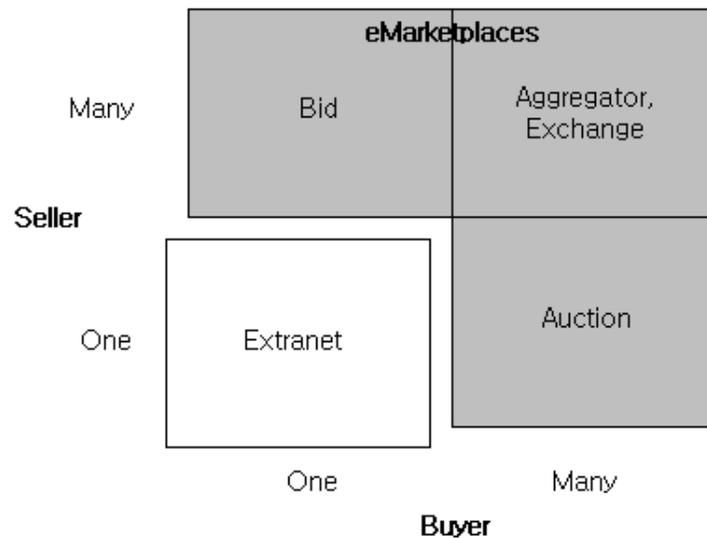


FIG. 1: TYPES OF E-MARKETPLACES PRESENTED BY FORRESTER RESEARCH

On the other hand, Steinfield [29] assert that private e-marketplaces are merely the latest manifestation of what Malone et al. [22] referred to as electronic hierarchies, where firms rely on networks to facilitate outsourcing, but only to a small number of firms with which they are tightly integrated. In addition, as Forrester Research illustrates in Figure 1 [20, 21], e-marketplaces act as intermediaries (or market makers) supporting any-to-any (or

multilateral) transaction mechanisms between multiple buyers and sellers. Note that one-to-one or end-to-end EDI (Electronic Data Interchange) and Extranet are excluded from the e-marketplace categories in Figure 1, which will be more discussed below. Intermediaries act as brokers or mediators between buyers and sellers. In the markets that lack price transparency and where it is difficult to find out who is buying or selling at any one point in time, the broker's role is to facilitate the ability of buyers to find sellers at the right time and at a mutually acceptable price. In such markets, the brokers restrict the free flow of information. For example, they ensure that the prices at which trades are made not widely disseminated and that the knowledge of who is buying and selling in the market is tightly controlled [26].

As shown above in Figure 1, the mediated any-to-any (or multilateral) transaction mechanisms hosted and controlled by e-marketplaces are generally differentiated from the end-to-end transaction mechanisms of EDI and Extranet. An extranet uses Internet protocols and is a security-enabled replica of the closed, proprietary EDI network. EDI messages may be translated into a standard format and routed via VAN (Value Added Network) with the hub-and-spoke model. However, VANs or EDI hubs supporting any-to-any document exchange are "communication intermediaries" or "message brokers". They do not act as market intermediaries, market makers, or transaction brokers at all. Since actual transactions take place at each end, the transaction mechanism through VANs is actually end-to-end or point-to-point. Note that the cardinality here does not mean that of network architecture (e.g., the many-to-many, hub-and-spoke model for EDI/VAN) or that of the participants (or members) to an e-marketplace. It means the relationship between trading partners participating in an individual transaction or deal in an e-marketplace.

Besides Forrester Research, A.T. Kearney [1] states that one-to-one web trading enablers do not meet the definition of e-marketplaces. Hemond-Wilson at IBM [17] also makes a clear distinction between e-marketplace models and one-to-one B2B trading partner agreements (TPAs) in EDI: She articulates four common B2B electronic commerce business models, that is, neutral, buy-side, sell-side e-marketplaces, and trading partner agreements. Trading partner agreements have the potential to automate the processes for negotiating and enforcing contracts between businesses using EDI and XML-based message exchange systems. That is, one-to-one interactions bypassing intermediaries do not meet the definition of e-marketplaces.

According to the arguments above, is it also acceptable to exclude the private e-marketplace, which is one of the direct-trade models without intermediation, from the e-marketplace models in spite of the fact that it is currently viewed as one of the e-marketplace models in most other literature? Deloitte Research [10] gives a clue for an answer to this debatable question: "A *One-to-Many Private Vertical* is an e-marketplace that links a large company to simultaneously and dynamically interact, trade and collaborate exclusively with its community of trading partners. A *One-to-Many (more accurately One-to-Some) Private Extranet* is an end-to-end B2B system or web site built by an individual buyer or seller company to attract their trading partners. It is often used to disseminate information and conduct one-way transactions. It usually lacks the capability for dynamic, simultaneous interaction and collaboration with multiple trading partners." Based on the statements quoted, we would make a distinction between the private e-marketplace and the private extranet (or end-to-end private exchange); "the dynamic, simultaneous interaction" in the private e-marketplace embodies one-to-many transaction as well as one-to-one transaction, but EDI or Extranet supports only one-to-one interaction. Thus, the private e-marketplace can be a type of the e-marketplace even though it is a direct-trade model without intermediation.

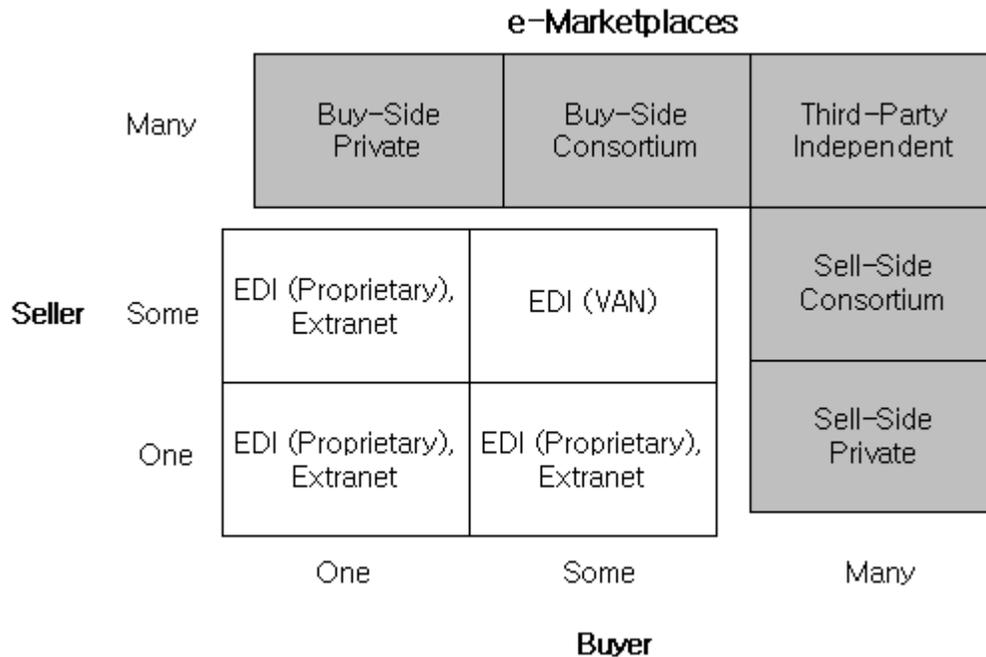


FIGURE 2. A REVISED TYPES OF E-MARKETPLACES BY THE PARTICIPANT AND NEUTRALITY MODELS

Drawing on the discussions above, we additionally develop a revised classification of e-marketplaces by both the number of participants in an e-marketplace (i.e., by the participant model) and the neutrality or bias (i.e., buy-side, sell-side, and neutral e-marketplaces) as shown in Figure 2, which also presents the differences from EDI and Extranet. In Figure 2, both buy-side and sell-side e-marketplaces are further divided into one-to-many private and some-to-many consortium e-marketplaces.

## Conclusions

Despite a wide variety of literature, no articles organizing and discussing the contradictory and contentious issues in B2B e-marketplaces can be found. In this paper, we set out to contribute to our understanding of the issues, as well as to provide valuable insights into a taxonomic resolution to scholars and practitioners. First of all, we begin our discussion by building three revised taxonomies extending and augmenting prior taxonomies for the business models in B2B e-marketplaces:

- A unified classification of the e-marketplace business models in Table 1,
- A revised types of e-marketplaces by the participant and neutrality models in Figure 2, which also representing the differences from EDI and Extranet.

All of these taxonomies serve to provide a framework for our examination of the topics. Then, we investigate and categorize the business models within the framework, and then provide our findings and topical discussions about them, which can be summarized as follows.

- Third-Party e-Marketplace vs. Portal: we can conclude that portals are e-marketplaces if they facilitate the “online” negotiation and settlement through the transaction system of the portals. Otherwise, they are just contents and community portals.
- Public vs. Private Consortium e-Marketplaces: Consortium e-marketplaces may be viewed as a public e-

marketplace, a private e-marketplace, or both sides. That is, although the consortium e-marketplace is commonly viewed as a public model in most literature, it can also become a private model or both sides.

- Private e-Marketplace vs. End-to-End Trade Exchange: This paper provides a clear distinction between private e-marketplace (one-to-many e-marketplace) and private extranet (or end-to-end private exchange).

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# The Effects of Product Involvement on Consumer's Purchase Decision Process in Online Shopping

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## Abstract

Despite the growing appeal of online shopping trends that indicated a remarkable potential, it will be not easy to attract new online customers and retain existing ones. And also, little previous studies employing consumers' needs to understand why Internet shoppers make purchase are found in the relevant literatures. This study assumed that customer's ability to select online shopping malls differs according to product involvement. In general, online consumers cannot depend on all senses to make purchase. Instead, they must rely on limited product representations such as photographs and text descriptions. Therefore, we consider that online consumers judge an online shopping mall by personal importance, interest or relevance about their products to purchase. According to marketing and consumer behavior literatures, involvement is defined as perceived personal importance, interest or perceived personal relevance. Based on this concept, the purpose of this study is to determine whether a customer's purchase intentions on the online shopping malls differ depending on product involvement. Therefore, this study examined how selected variables (i.e. trust, informativeness, entertainment, product variety) influenced the impact on customers' purchase intentions through product involvement for selecting online shopping malls. We collected 282 survey responses from online consumers who have prior experience with online shopping malls to purchase a product. The survey data are used to empirically test the proposed eight research hypotheses using LISREL. The LISREL results showed that product involvement indicated a statistically significant explanation of online consumers' purchase intentions. In a state of high product involvement, online consumers may be more willing to demand detailed information by selecting trustworthy online shopping malls. And also, more involved online customers might make purchase more hyperlinks to detailed product specifications, various products display provided through the online company. The findings suggest online companies should utilize our conclusions while understanding consumer purchase behaviors in online environments.

## Introduction

Internet shopping malls enable consumers to shop conveniently without limitations of time and space as placing orders in online. Due to these attributes, although consumer behavior in the online environments has been the subject of considerable B2C (business-to-consumer) research in the last few years (Brynjolfsson and Smith, 2000; Cho et al., 2003; Devaraj et al., 2002; Eighmey, 1997; Jarvenpaa & Todd, 1997; Koufaris, 2002; Loshe and Spiller, 1999; Novak et al., 2000; Szymanski and Hise, 2000), there have been lots of difficulties in understanding what consumers need and how they behave in online shopping malls (Devaraj et al., 2002). Also, there were little understanding for characteristics of network sales.

From the consumer's viewpoint, the way to purchase products/services in Internet shopping malls is quite similar to brick-and-mortar except for using network technologies. Therefore, the ultimate goal of consumer's usage in online shopping malls is to purchase products/services. If online consumers' final purpose is to purchase products/services, it will be quite similar to the characteristics of consumer behavior in offline shopping.

But, because of characteristics of online environments, consumers may go through different information search, attitude, and behavior compared with offline contexts. That is, online consumers think and act differently from offline counterparts. For instance, online consumers who want to purchase products/services should depend on information, well-designed display structures provided by Internet shopping malls. In general, online consumers are more powerful, demanding information related to products/services than offline consumers but they should rely on limited product presentations such as text descriptions and photos because they cannot make purchase using all five

senses. Therefore, online consumers to make purchase may have a different information search stages and also, take a cautious attitude to select Internet shopping malls.

From this point of view, consumer's criteria to select a certain Internet shopping mall depend upon consumers' interest, relevance, importance of products. For example, if online consumer's importance or interest on purchasing products/services is high, they will find a specific reliable Internet shopping malls that enable themselves to maximize their benefits, minimize perceived risks with the product purchase, and provide correct product information.

After all, consumer's specific situational factors must be considered because online consumer's decision process to buy a product on the web is already decided by the degree of interest on a certain product. Through these personal and situational factors, they will take actions from selecting an Internet shopping mall to purchasing behavior on products/services in that shopping mall.

Marketing and consumer behavior literature suggested involvement as one of the most important components in a decision process to enhance understanding of consumer behavior. Involvement is defined as perceived personal importance, interest, or perceived personal relevance evoked by a specific stimulus in specific surroundings and intensity of consumer's purchase needs. Especially, product involvement suggested by this study is consumer's continuous interest about a product. It was derived from perceived psychological and financial risks on product purchase. In general, consumers who want to purchase products select one of the shopping malls by their own several evaluation criteria because it differs from main purposes or benefits out of relevant products.

Therefore, we consider that online consumers judge online shopping malls by their own personal importance, interest or relevance about their products to purchase. Based on product involvement concept, the purpose of this study is to determine whether a customer's purchase intentions in online shopping differ depending on product involvement. And also, this study will examine how selected variables (i.e. trust, informativeness, entertainment, product variety) may influence the selection of online shopping malls.

## **Theoretical Backgrounds**

### **Involvement**

Involvement, one of the most important variables in consumer behavior research, played an important role in consumer's persuasive process (Celsi & Olson, 1988; Hoffman & Novak, 1996; Kruman, 1967; Petty & Cacioppo, 1983). Involvement was defined as perceived personal importance and interest evoked by a specific stimulus in specific surroundings or degrees of perceived personal relevance toward an object (Peter & Olson, 1996; Zaichkowsky, 1985). According to this concept, consumers are willing to pay more attention and interests under high involvement when purchasing a particular product. As a result, they will search for more product information and treat information more considerately. Extensive marketing literature have illustrated that the consumer's learning process relied on the degree of involvement. So, it could be suggested for each consumer to bring about the difference of information search and alternative evaluation process that could be generated by involvement (Cho et al., 2003; Koufaris et al., 2001; Kofaris, 2002; Kokoonaki, 1999; Kruman, 1967; Petty & Cacioppo, 1983; Robertson, 1976; Rothschild & Gaidis, 1981; Traylor, 1981).

We suggest that a consumer with high product involvement have high interests on an intrinsic attribute of products; thus, he or she will look for more information related to a specific product. On the other hand, a consumer with low product involvement has interests on peripheral components such as website design, sounds provided in the web shopping mall rather than critical information about products. Therefore, when a consumer feels relevance to the needs and values from searching for products, he or she has high product involvement and selects an Internet shopping mall that can meet needs. Conversely, in case of a consumer with low product involvement, he or she selects a specific Internet shopping mall that emphasizes entertaining factors.

### **Involvement in Online Environments**

Hoffman and Novak(1996) suggested that involvement was related to information search on the web. According to their study, web users' behaviors were divided into two types of behaviors: goal-directed behavior and experimental behavior. Those behaviors rely on distinct search motives combined with the target of involvement. Furthermore, consumer behaviors on the web were explained by involvement and search motives. Especially, goal-

directed behaviors are characterized for situational involvement and directed search. For instance, once web users navigate on web sites for purchasing products/services, their behaviors reflect goal-directed behavior.

Meanwhile, users may go through experimental behaviors when they search for interesting web sites. According to their study, it is suggested that consumers can evaluate products/services by remembering their own memories or using collected information from external sources. And then, to purchase their involved products/services, they should select a specific one of the online shopping malls which meet their own needs.

Koufaris et al.(2001), who especially investigated consumer behaviors in the web-based commerce, examined the impact of consumer experiences and attitudes on the intention to return and unplanned purchase online. According to his research, he found that new web customers tend to have return intention to the online shopping mall through perceived control and shopping enjoyment.

Novak et al.(2000) also mentioned that product involvement influenced consumers; experiences and behaviors. And they said that it could influence the flow construct as antecedents of flow. Therefore, using involvement, consumer's importance of web-based store or products/services would be simply measured. And also, Kokoonaki(1999) ascertained involvement played important roles from persuasion process to an attitude based on elaboration likelihood model of attitudes. A previous study which is applicable to this study indicates that consumers with low product involvement do not make a lot of efforts for information search and those who have high product involvement, conversely, aggressively search for more and specific information about products (McGaughey and Manson, 1998). Through the investigation of related research, we suggest that consumer behavior including forming of attitude, decision process, information-handling process, etc. will depend on involvement of a specific object. Therefore, we analogized that consumer's product involvement is considered as the key factor mediating consumer's decision process for purchasing products/services, and further evaluation and selection of a specific online shopping mall.

#### **Online shopping mall attributes**

##### **Informativeness**

Informativeness is the ability to provide necessary information efficiently to target customers (Ducoffe, 1996). And also, Andrew (1989) indicated that informativeness was associated with the consumer's beliefs that focused on economic benefits. Gupta(1995) mentioned that one of the biggest consideration for consumers is the collection of information related to purchasing products. Thus, consumers are willing to collect rich and useful information about specific information on the web. Namely, information collected from Internet functions to facilitate consumer's purchase decision process. Information provided in Internet shopping malls depends on how they provide accurate and sufficient information to consumers. That information must be clear and persuasive to consumers on the web. In the same context, it will be similar to DeLone and McLean (1992, 2003)'s information quality concept. Ranganathan and Ganapath (2002) also mentioned that high level of information quality could provide adequate information about products/services at B2C web sites, easily access to information via search engines, and provide consumers the help for evaluation processes.

From these perspectives, we can guess that a consumer will select an Internet shopping mall that can provide diverse, accurate and relevant information because of high level of needs on necessary and reliable information as consumer's interest on products increases.

##### **Entertainment**

Entertainment on the web can be very important in online shopping malls because it may have a significant impact on attitude and intention towards online shopping (Jarvenpaa and Todd, 1997; Eighmey, 1997; Rice, 1997). Barker and Gronne(1996) mentioned that a consumer was generally exposed to a specific product or message with entertainment within a certain period of time. And also, they said that entertainment ambiguously set boundaries between information and entertainment because of information irrelevant to a specific product. Maignan and Lukas(1997) said that entertainment could facilitate to generate consumption of product and services. And Ducoffe(1996) proved a significant causal relationships between entertainment and advertising value. Koufaris et al.(2001) found that shopping enjoyment was the main determinant of online consumer's intention to return through the empirical analysis.

Based on the results of previous studies, we conceptualize that entertainment is the degree of enjoyment from pleasant or likable advertising on Internet shopping malls. Thus, in case of consumers with low involvement,

we suppose that they select a specific Internet shopping mall which emphasize on entertainment because they do not seriously consider a purchase decision rather than consumers under high involvement.

### **Product Assortments**

In the previous literature of retailing management, those literatures suggested that product merchandises or assortment could be another important factor when a consumer selected a specific store. Craig et al.(1984) said that consumers could have a probability to choose a specific store that meets their own needs if a certain store has various product assortments. And, they also mentioned that product assortments had an important factor due to providing opportunities for consumers to choose a product. In online environment, product assortments have consisted of price, product quality, and product and brand variety and so on. Especially, Jarvenpaa and Todd(1997) classified the characteristics of internet shopping into four categories : product perception, shopping experience, customer service, and customer risk. And they examined a consumer's response to those characteristics on the Internet shopping mall. The results of product characteristics including product price, quality and variety have significant impacts on the consumer's response.

Internet shopping malls have various products for sales and also provide much product information to customers. If an Internet shopping mall gets ready for various product assortments, the customer will have more chances to find better satisfactory and qualified products. According to Szymanski and Hise(2000), product assortments can be related to the degree of product offerings and the degree of product information. And also, they mentioned that consumer satisfaction would be more positive when consumers perceive online shopping malls to provide superior product assortments because of those augmentations; First, superior assortments can increase probability of meeting consumer needs and satisfaction. Second, the wider product assortments can include items of better quality that may be more attractive to customers.

### **Trust**

The importance of trust has been already emphasized in many transactional and buyer-seller relationships focusing on long-term behaviors(Donney and Cannon, 1997; Morgan and Hunt, 1994). Trust has been conceptualized by previous research in several of ways, both theoretically and operationally. McKnight and Chervany (2001) defined trust as 'a willingness to believe' or 'beliefs regarding various attributes of the other party'. And further, they mentioned that trust was similar to fairness, goodness, strength, ability, benevolence and predictability. As mentioned above, trust in many previous studies has been regarded as a crucial key factor to intentions to purchase and satisfaction in online and offline commercial transactions (Jarvenpaa et al.,1999; Brynjolfsson and Smith, 2000; Reichheld and Scheffer, 2000; Ba and Pavlou, 2002; Gefen et al., 2000). Especially, Ba and Pavlou (2002) also pointed out that trust was an important factor in relationships between buyers and sellers. And they mentioned that consumers could pay more price premiums to reputable sellers by reducing transaction-specific risks when they purchase a product in online.

### **Purchase Intention on the web**

Purchase intention refers to the expected or planned individual behavior for foreseeable future and the degree of moving from beliefs to attitudes. Attitudes, a central position in the study of consumer behavior, are thought to motivate individual behavior and thus to contribute to prediction. The Theory of Reasoned Action(TRA) suggested by Ajzen and Fishbein(1980) is a dominant approach to modeling attitudinal influence on behaviors. TRA is based on the assumption that individuals make a rational use of available information when they make decisions for their behaviors. TRA views behavioral intentions as the intermediate determinants of behaviors. In turn, intentions are determined by attitudes toward the behavior and subject norms.

Meanwhile, in previous studies with application of TRA in the online context, Hoffman and Novak (1996) mentioned that purchase intention could increase by repeatedly visiting the same web sites when giving enjoyment during navigation to online customers. Jarvenpaa and Todd(1997) presented main attributes(product perception, shopping experience, customer service, and consumer risk) for consumers' purchase intentions in the online shopping context.

## Research Model

We propose the research model based on the results from diverse previous studies in the marketing, consumer behavior and information system area (see Figure 1).

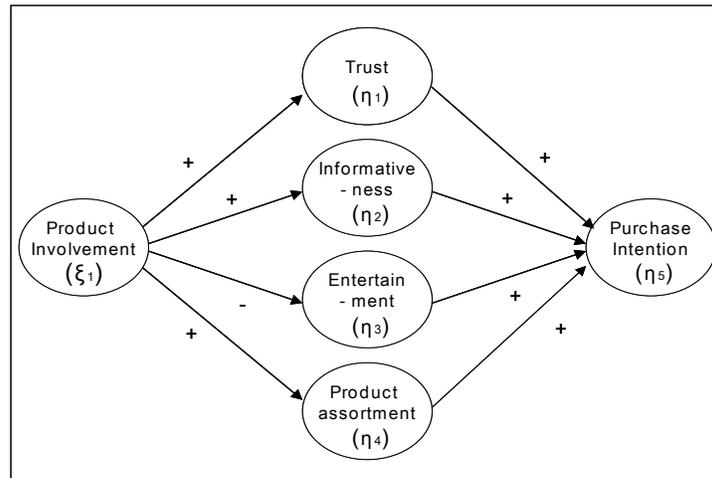


FIG. 1: RESEARCH MODEL

### Hypothesis

#### Product Involvement and Trust

Online consumers have to rely on the limited product information and presentations such as photographs or text descriptions in the purchase decision process. However, those product presentations have significant impacts on attitude and purchase intention of online shopping because those did not explain to consumers perfectly (Jarvenpaa and Todd, 1997; Novak et al., 2000).

And also, online consumers thought of risks such as delivery processes or use of credit cards for purchasing product appeared to web environments (Bhatnagar et al., 2000). Especially, online consumers with high product involvement tend to minimize their risks when they consider purchasing a specific product. Risks refer to the perceived risk of consumers. That is, consumers tend to consider selecting an Internet shopping mall, a product and way to purchase and so forth. Those perceived risks could be antecedents of trust in variety of previous literatures (Hoffman et al., 1999; Lee and Turban, 2001; Pavlou, 2003). After all, an online consumer makes informed decisions to purchase products depending on perceived risks with individual interest of a specific product in online contexts.

Therefore, we suggest that intention to purchase be different from relying on a consumer's perceived risk and individual involvement in online shopping. Trusting a specific Internet shopping mall means that online consumers expect to minimize their own perceived risks. Thus, consumers with high involvement tend to select more reliable shopping mall. We, therefore, hypothesize that:

**HYPOTHESIS 1:** Online consumers with high product involvement will choose a reliable online shopping mall.

#### Product Involvement and Informativeness

Involvement can be the intensity of a consumer's purchasing needs. Thus, highly involved consumers will search more information about a specific product and handle it cautiously. Under highly involved decision process, consumers tend to collect information and be deeply involved in the purchase processes. On the other hand, consumers with low involvement will go through simple and quick process on purchasing information because they have a relatively low risk of buying products.

In general, online consumers can choose better products through less effort and time rather than offline consumers because of low search costs (Bakos, 1997; Devaraj et al., 2002). Thus, online consumers are able to make right decisions through searched product information. In turn, those information collected from online can be a function to facilitate purchase decisions making. Therefore, information provided by Internet shopping malls must be clear, persuasive, accurate and sufficient. That is, informativeness in an Internet shopping mall can be a stimulus to facilitate a consumer's purchasing behavior. Therefore, the mall should present reliable, various, accurate and sufficient information. After all, consumers with high involvement will search information that is to meet their own goals, needs, and values. To do it, they tend to have probabilities to select an online shopping mall that can provide accurate, sufficient information to compare with each product. We, therefore, hypothesize that:

**HYPOTHESIS 2:** Online consumers with high product involvement will choose an online shopping mall with greater relevant product information.

#### **Product Involvement and Entertainment**

High product involvement can increase intention to purchase in online when consumers are conscious of their propounded relevance of goals and values from information search or investigation of products. On the other hand, if consumers have less relevance of products, they are influenced by color, size, and sounds of online shopping malls. Consumers with low involvement may change attitudes for purchasing with those trivial attributes of the mall. Thus, we can understand that low involved consumers tend to select the Internet shopping mall that can provide shopping enjoyment or pleasant rather than information relevant or critical to products.

Jarvenpaa and Todd (1997) mentioned that entertainment such as shopping enjoyment could have a significant impact on attitude and intention towards purchasing the products. In previous studies (Maignan & Lukas, 1997), entertainment refers to the degree of enjoyment provided in an Internet shopping mall and can attract consumer's attentions, in especially, online consumer with low involvement. Therefore, entertainment attributes of the shopping mall will be an important determinant to low involved consumer's intention to purchase.

**HYPOTHESIS 3:** Online consumers with low product involvement will choose an online shopping mall with highlighting entertainment parts.

#### **Product Involvement and Product Assortments**

According to the retailing management study, product assortment is an important determinant of selection of a certain store. Especially, Craig et al. (1984) mentioned that consumers could find a specific product that meets their own needs when a store has a variety of product assortments and have many opportunities to select products they need.

In previous studies, researchers also revealed that consumers considered product assortment as an important factor regardless of on/offline (Burke, 1997; McQuitt and Peterson, 2000; Loshe and Spiller, 1999). Jarvenpaa & Todd (1997) found that product assortment would positively influence the consumer's response. And Szymanski and Hise (2000) mentioned that consumer satisfaction in online would be more positive when consumers perceive that online shopping malls provide superior product assortments.

Therefore, if there are various products in the Internet shopping mall, consumers with high involvement can achieve many choices to choose and compare products that they need. In turn, it means that they can be deeply involved in purchase process due to various alternatives about products. We, therefore, hypothesize that:

**HYPOTHESIS 4:** Online consumers with high product involvement will choose an online shopping mall with highlighting product assortment.

#### **Trust and Purchase Intention**

A number of previous studies indicated that trust had a significant impact on behavioral intention in online environments (Jarvenpaa et al., 2000; Gefen et al., 2000, 2003; Lee and Turban, 2001; Bhattacharjee, 2002; Palvou, 2003). And also, Shrama & Patterson (1999) asserted that trust was a foundation to maintain a long-term relationship between customers and companies. Gefen et al. (2003) insisted that visiting online shopping mall was strongly based on trust, and found that trust influenced perceived usefulness and intention to use. Based on these results of such prior studies, we suggest the following hypothesis.

**HYPOTHESIS 5:** Trust in selected online shopping mall will be positively related to consumer's purchase intention.

#### **Informativeness and Purchase Intention**

According to Hawkins(1994)'s research, internet can be enable to access various information on products/services as a distribution channel. In turn, information would be an important function as values of web sites before purchasing products. Thus, if consumers can utilize much available information provided by an online shopping mall, they can make informed decisions. Also, Chakraborty et al.(2003) insisted that consumers recognized importance on information when purchasing products. We, therefore, hypothesize that:

**HYPOTHESIS 6:** Informativeness in the selected online shopping mall will be positively related to consumer's purchase intention.

#### **Entertainment and Purchase Intention**

Many prior studies empirically proved that entertainment, defined as fun, pleasure, exciting of users when visiting web sites, determined consumers' intention toward purchase or satisfaction (Chen and Wells, 1999; Eighmey, 1997). Jarvenpaa & Todd (1997) also mentioned that it had a significant impact on attitude and intention in online shopping. Koufaris et al.(2001) found that the more often customers return to an online store, the more their shopping enjoyment was determined.

Maignan and Lukas(1997), and Rice(1997) mentioned that entertainment provided by shopping malls could facilitate consumption of products and services. From these results, we suggest that intention to purchase be significantly influenced by entertainment in online shopping malls. Thus, we hypothesize that:

**HYPOTHESIS 7:** Entertainment in the selected online shopping mall will be positively related to consumer's purchase intention.

#### **Product Assortment and Intention to Purchase**

Online shopping malls can provide various product assortments without absence of stock. That means consumers are able to compare products and have opportunities to find the best suitable product for consumer's needs. Prior studies revealed that consumers could have greater chances to face high quality of product that they needed when there is a variety of product assortments(Burke, 1997; McQuitt and Peterson, 2000; Szymanski and Hise, 2000). Thus, product assortments in an online shopping mall will be related to intention to purchase.

**HYPOTHESIS 8:** Product assortment in the selected online shopping mall will be positively related to consumer's purchase intention.

#### **Instrument Development**

The questionnaire included the items to measure variables appeared from the previous studies for the followings. Product involvement was assessed by three measurement items from Petty and Cacioppo(1988) and Zaichkowsky(1985)'s scale. It refers to the perceived individual relevance, interest and value when a consumer makes a purchase. Trust items were composed to reflect specific beliefs of consumers in the online shopping mall (Bhattacharjee, 2002; Gefen, 2000; Gefen et al., 2003). And informativeness items represent the ability to provide accurate, abundant and relevant information regarding a specific product (Ducoffe1996; Ranganathan & Ganapathy, 2002). Entertainment items were adopted from Ducoffe(1996) and Koufaris et al.(2001)'s scales. These were previously applied to generate pleasures or enjoyment on the web. Product assortment items capture some of Burke(1997) and Jarvenpaa and Todd(1997)'s scales. Finally, examining purchase intentions is consistent with the way of and Jarvenpaa and Todd(1997), and Gefen et al.(2003)'s research.

## **Research Methods**

To examine the effects of product involvement and other factors such as trust, informativeness, entertainment and product assortment on purchase intention in the Internet shopping mall, a survey method was employed in this study. The sample for analysis in this study was drawn from those who were experienced users of online shopping malls.

#### **Study Design, Procedures and Descriptive Statistics**

A survey was conducted from online shoppers to collect data and empirically analyze the research model. All of the measurement items are consisted of seven Likert point scales ranging from strongly disagree (1) through neutral (4) to strongly agree (7) except for demographic characteristics. In total, the initial sample consisted of 373 responses and final responses were 283 through screening out missing values for analyzing the research model. We used the LISREL software 8.51 to analyze the data sets collected.

LISREL was used for data analysis because it has superior advantages over other methods (Gefen et al., 2003). It provides the appropriate and most efficient estimation technique for a series of separate multiple regression equations estimated simultaneously (Hair et al, 1998). The LISREL analysis includes two steps of the statistical result. The first step in the data analysis was to establish the convergent and discriminant validity of the constructs with a LISREL confirmatory factor analysis(CFA). The second step is the structural model, which includes hypotheses in addition to the paths between the items. The latent constructs were examined in the measurement model.

This resulted in a dataset of 282 responses. Of the respondents, 142(50.4%) were women and 140(49.6%) were men, without some missing values in the dataset. Most respondents were in almost in their early and late 20s(n=245). And they had purchased online an average of 1-3 times during the last one month. In addition, most respondents were in undergraduate students (n=190) and others (n=92) and they had used an average of 4-5 hours for a shopping during the one-week. The most frequent sites for last purchase were D&Shop(20.6%), CJ mall(17.1%), InterPark(14.5%), Auction(10.6%), and others(22.8%). Most purchased items are the followings: clothes (17.9%), books (11.7%), cosmetics (11.3%), others including electrics.

**Measurement Model and Reliability**

The CFA showed an acceptable model fit. The  $\chi^2$  of 254.67 with 120 degrees of freedom showed a  $\chi^2$  to degrees of freedom ratio of less than the recommended 1:3. The GFI at .91, AGFI at .87, NFI at .90, CFI at .94, RMR at .06, and RMSEA at .064 are all within the accepted thresholds for CFA.<sup>i</sup> That means the measurement model has convergent validity. And also, the composite construct reliabilities, shown in Table 1, are also within the commonly accepted range greater than 0.7 (Bagozzi & Yi, 1988). The reliabilities of all instruments had acceptable Cronbach's alpha values (from 0.7574 to 0.8590) as seen in Table 1.

In addition, discriminant validity of the resulting scales was examined employing the guidelines advanced by Furnell and Larcker(1981). It is a method whether AVE is more than a squared root of all correlation coefficients. If AVE is over them, there is an existence of discriminant validity. Thus, the measurement model also has discriminant validity shown in Table 2 (Furnell & Larcker, 1981)<sup>ii</sup>.

TABLE 1: CONFIRMATORY FACTOR ANALYSIS, COMPOSITE RELIABILITY AND CRONBACH'S ALPHA

Variables	Items	Factor Loadings	t -value	Cronbach's Alpha	Composite Reliability	AVE
Trust	Trust1	0.69	12.76	0.8590	0.8300	0.620
	Trust2	0.92	19.02			
	Trust3	0.85	16.95			
Product Assortment	Brand1	0.77	14.08	0.8290	0.8444	0.644
	Brand2	0.83	15.58			
	Brand3	0.76	13.91			
Entertainment	Ent1	0.82	14.96	0.8208	0.8239	0.610
	Ent2	0.81	14.70			
	Ent3	0.71	12.64			
Informative -ness	Inform1	0.79	14.95	0.8443	0.8655	0.685
	Inform2	0.79	14.80			
	Inform3	0.83	15.77			
Product Involvement	Invol1	0.56	9.23	0.7574	0.7775	0.545
	Invol2	0.82	14.45			
	Invol3	0.80	14.07			
Purchase intention	Ip1	0.70	12.11	0.7833	0.7809	0.543
	Ip2	0.74	13.13			
	Ip3	0.77	13.62			
Fit Indexes	$\chi^2=254.67$ , $df=120$ , $RMR=0.06$ , $RMSEA=0.064$ , $GFI=0.91$ , $AGFI=0.87$ , $CFI=0.94$ , $NFI=0.90$					

TABLE 2: CORRELATION MATRIX AND AVERAGE VARIANCE EXTRACTED (AVE)<sup>iii</sup>

	AVE	TRUST	INFORM	ENT	IP	BRAND	INVOL
TRUST	0.62	1.00					
INFORM	0.64	0.26	1.00				
ENT	0.61	0.19	0.20	1.00			
IP	0.69	<u>0.53**</u>	0.46	0.34	1.00		
BRAND	0.54	0.26	0.27	0.20	0.28	1.00	
INVOL	0.54	0.50	0.52	0.38	0.46	0.52	1.00

**Path Analysis**

To test hypotheses in the study, the structural model was examined on the measurement model. The fit indexes are within accepted thresholds, except for GFI= .88, which is slightly lower than the commonly cited threshold.  $\chi^2$  to degrees of freedom ratio of 358.71, 127, CFI = .91, RMR = 0.09, RMSEA = 0.081, AGFI = .83. Figure 2 shows the LIRSEL path coefficients and the overall fit indexes. Squared multiple correlations were: intention to purchase 43%. And all paths are found significant expect the path between product involvement and entertainment, which is for revered direction (p=.38, t=5.29), and the path between product assortments and intention to purchase which is insignificant (p=.06, t=0.85).

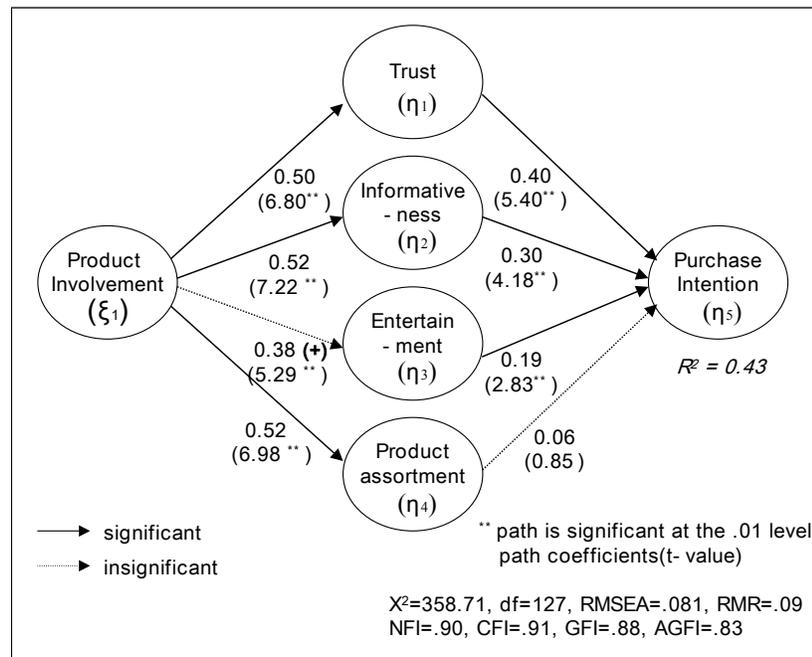


FIG. 2: PATHS IN RESEARCH MODEL

Table 3 shows the results of hypothesis using structural models. First, the relationship between product involvement and trust was statistically significant. Therefore, Hypothesis 1 is supported. In turn, consumers with high involvement tend to choose more reliable online shopping mall. Second, the relationship between product involvement and informativeness was also significant. Thus, Hypothesis 2 is supported. On the other hand,

Hypothesis 3 is not supported because consumers buying product with higher involvement tend to shop in a shopping mall with higher entertaining contents. It is contrary to our expectation. On the other side, Hypothesis 4 is also supported at the 0.01 significance level. And also, Hypothesis 5, 6 and 7 are supported except for Hypothesis 8. Figure 2 shows the final research model among the proposed casual relations. Based on the results of our evidences, we interpreted each hypothesis for the followings.

TABLE 3: SUMMARY OF HYPOTHESES TESTING RESULTS

Seq	Hypotheses	Direct effects		Direction	Results
		Path coefficients	t-value		
1	product involvement ( $\xi_1$ ) $\rightarrow$ trust ( $\eta_1$ )	0.50	6.80	+	<b>Supported</b>
2	product involvement ( $\xi_1$ ) $\rightarrow$ informativeness( $\eta_2$ )	0.52	7.22	+	<b>Supported</b>
3	product involvement ( $\xi_1$ ) $\rightarrow$ entertainment ( $\eta_3$ )	0.38	5.29	-	Rejected
4	product involvement ( $\xi_1$ ) $\rightarrow$ product assortment ( $\eta_4$ )	0.52	6.98	+	<b>Supported</b>
5	trust ( $\eta_1$ ) $\rightarrow$ purchase intention ( $\eta_5$ )	0.40	5.40	+	<b>Supported</b>
6	informativeness ( $\eta_2$ ) $\rightarrow$ purchase intention ( $\eta_5$ )	0.30	4.18	+	<b>Supported</b>
7	entertainment ( $\eta_3$ ) $\rightarrow$ purchase intention ( $\eta_5$ )	0.19	2.83	+	<b>Supported</b>
8	product assortment ( $\eta_4$ ) $\rightarrow$ purchase intention ( $\eta_5$ )	0.06	0.85	+	Rejected

First, Hypothesis 1, 2, 4 are significant but hypothesis 3 is not supported. In case of hypothesis 1, it explains that online consumers under high involvement tend to select more reliable online shopping mall to purchase a specific product because they are deeply involved in their decision-making processes such as collecting more information for a long time or minimizing their risks. And, from hypothesis 2, we find that consumers with high product involvement tend to prefer to an online shopping mall providing sufficient product information because they want to receive more, accurate and relevant product information from the selected online shopping mall. In case of hypothesis 4, it can be explained that high-involved consumers are willing to choose an online shopping mall that has a variety of product assortments for enabling them to compare products. In turn, the more various product assortments for sale are in an online shopping mall, the easier high-involved consumers compare products they consider to buy since they are deeply involved in purchase-decision processes.

Meanwhile, Hypothesis 3, which is not supported, shows that high-involved consumers prefer to choose an online shopping mall that underlines the entertainment. From this result, we can predict that consumers who have high product involvement also consider accurate product information as well as entertainment in an online shopping mall when they make a purchase. Thus, entertainment such as fun, pleasures and enjoyment can be one of the important factors in purchase-decision process on an online shopping mall when consumers search and explore much information about products. In turn, if the online shopping mall adds the entertainment such as enjoyment or pleasure to customers who take serious view of usefulness on product information, it can be more attractive to them. And also it is interpreted that some online shopping malls are providing friendly various web site design and animations to customers as entertainment promotion tools. Those shopping malls are several renowned, reliable ones that are currently providing lots of information on products and having various product assortments.

Thus, as stated in hypothesis 3 above, we insisted that high-involved consumers pay less attention to be interested in entertainment of an online shopping mall. But the result in this study are contrary to the our expectation because a reliable online shopping mall that has grater abilities to provide much product information can have also highlighted entertainment sides. Therefore, we consider that the relationship between product involvement and entertainment will be independently studied in the further studies.

In case of hypothesis 5 which was supported, trust in the online shopping mall has a strongly positive impact on intention to purchase. It supported the results of previous studies (Jarvenpaa et al., 2000; Gefen et al., 2003; Palvou, 2003). Trusting a specific shopping mall means that online consumers can always expect to minimize their perceived risks. So, online companies involved in facing consumers must make efforts to provide superior service and securities. In summary, from the customer's viewpoint, trust is still an important factor when making a purchase via Internet. And also from a standpoint of online companies, they have got to actively utilize trust in online surroundings.

Third, Hypothesis 6 and 7 are both also supported. Both of them are in accordance with the results of previous studies (Chen and Wells, 1999; Eighmey, 1997; Koufaris et al., 2001). After all, those results revealed that consumers could repeatedly visit and buy products in an online shopping mall when consumers are deeply conscious of product information and are in high emotional responses status from entertainment such as shopping enjoyment or pleasure to purchase a specific product.

Fourth, in general, because of limited presentations such as photographs, text descriptions or animation of products in the online shopping mall, online consumers must depend on those presentations unless having other ways to evaluate products. Hypothesis 8 is not supported. It is quite different from the results of other previous studies (McQuitt et al., 2000; Szymanski and Hise, 2000). In case of this study, most respondents made a purchase of standard products such as books, CDs. Thus, product assortments may not have a significant impact on intention to purchase because they already decided what they would buy.

## **Conclusions**

### **Summary of Results**

This study is to investigate the effects of product involvement on the selection of online shopping malls. Thus, this study formulated the research model based on theories from marketing, consumer behavior and information systems literatures. From the statistical analysis of 282 response data, it was found that consumers buying products with higher involvement tend to shop in a shopping mall with greater trust, which provide more information about their products and a wider variety of products. After all, selecting an online shopping mall can depend on consumer's involvement with a specific product. In addition, another purpose of this study was to investigate factors of shopping malls which influence the buyer's purchase intention. The results of data analysis indicate that consumers are more likely to buy in a shopping mall with greater trust, with detailed product information, and with higher entertaining contents. The results of the study indicate that the shopping malls which give more detailed product information to their customers and establish greater trust will finally lead to a higher sales revenue because more expensive products will be sold.

### **Discussions**

As we mentioned above, this study indicates that consumers are more likely to make a purchase in a shopping mall with greater trust (Gefen et al., 2000, 2003; Bhattacharjee, 2002; Palvou, 2003), with detailed product information (Hawkins, 1994; Chakraborty et al., 2003), and with higher entertaining contents (Chen and Wells, 1999; Eighmey, 1997; Koufaris et al., 2001) because testing hypothesis 5, 6 and 7 proves the significant evidences. Therefore, it is very important for online shopping malls to work out their strategies with greater trust, more detailed product information, and entertainment contents such as animations in order to attract new customers and maintain existing customers.

Although the role of involvement of offline shopping in the marketing literature has been widely conducted, few previous studies employing product involvement in online shopping contexts are found in the relevant literature. That is the reason why this study is valuable. The reason that establishes primarily focusing on product involvement in this study is that consumers' cognitive processes such as decision-making, information handling and cognitive dissonance are different in depending on product involvement when making a purchase (Robertson et al., 1984). Therefore, it does not uniformly prescribe the consequents of decision-process for a final purchase, but necessities to explain how purchase decision-process is different in depending on product involvement. Based on these findings, it can present business strategies that are suitable for each online shopping mall company.

The findings of this study revealed that consumers buying products with higher involvement tend to shop in a shopping mall with greater trust, which provide more information regarding their products and a wider variety of products. In turn, those findings can become successful conditions for online shopping mall firms to increase higher sales revenue. Meanwhile, in general, consumers with higher involvement tend to ignore things regardless of main product information because they pay more attentions to product quality, price and so forth when they make a purchase. But, our empirical result of hypothesis 3 shows the contrary to the proposed one. That is, an online shopping mall with greater trust, with detailed product information regarding a wider variety of products can be also one with higher entertainment. A possible explanation of this findings may be the followings: 1) when a consumer's involvement is high, entertainment and other factors proposed by this study have high correlation as we mentioned above. 2) As Gefen et al.(2003) stated, it can be inferred by correlation between high web site quality and high trust.

Therefore, when considering these findings independently, entertainment can be negatively related to or not related to product involvement but consumers with high involvement can be likely to find an online shopping mall with higher entertainment because an online shopping mall with higher entertaining contents may lead to be with higher trust (Koufaris, 2002). Thus, future research is needed to explore alternative operational definition of entertainment and also examined to focus on the relation between entertainment and product involvement.

In case of product assortment, it does not influence the purchase intention in this study because when consumers decide to make a purchase, they tend to search the online store with the lowest price of a specific product after considering what they buy. In addition, we mentioned above, one of the reasons is most purchasing items of respondents were non-sensory products or standard products such as books electronics and so on.

#### **Implications: Theoretical and Practical**

Our results of this study have important rhetorical and practical implications for the followings.

First, we present product involvement in consumer behavior area as the key construct in better understanding online consumer behaviors. Unless consumers in online shopping are familiar with a specific product, they have exposures to limited product presentations because they cannot make a purchase using all five senses (Eighmey & McCord, 1998). Thus, consumer-purchasing behavior in online shopping environment can be ultimately influenced by product involvement. And, in case of consumes visiting a specific online shopping mall, they visit it because of shopping mall structure, detailed information provided from web stores, product characteristics and so on. Because each consumer had different involvement regarding a product in his or her decision-process despite same product characteristics, online firms can guide right reactions of consumer behaviors to better understand consumer behavior with online shopping. To do this, IS managers and practitioners involved in an online shopping mall should develop information systems or better managing web tools that can strengthen user satisfaction and/or consumer satisfaction on the web. For examples, adequate communication tools can reach customer satisfaction and achieve systematically customer relationship management (CRM) for grasping a consumer's behavior. And also, by providing a chatting system in real-time, online firms can resolve the uncertainty about the products, so that online customers' satisfaction will be increased.

Moreover, this study academically illuminates that product involvement, which is less found in the online shopping literature, drawing from the consumer behavior literature, was examined by relationships among online shopping characteristics variables. Through these findings, it provides academic implications that are online consumers are more likely to depend on the degree of involvement regarding products as well as online shopping mall characteristics.

Second, the results of this study also show that trust and informativeness have the strongest impact on purchase intention. Those constructs are very important components on uncertain online environments in business to consumers (B2C) literatures. After all, online firms' trust and abilities to provide detailed product information are very important considerations from the online consumer's viewpoint. Controversy, online firms should also make an effort to build trust or brand reputation for increasing customer satisfaction and loyalty. To build trust of an online shopping mall, it should build its brand reputation. By establishing well-known brands or a strong brand image, the online shopping mall should be able to notify its best service activities and polices for customers to trigger customers to purchase products. Especially, since the results of the study indicate that consumers with high involvement tend to consider trust of an online store with higher information on products, it will finally lead to help increase higher sales revenue because more expensive products will be sold.

### Limitations and Suggestions for Future Research

It is important to evaluate the study's results and contributions in light of its limitations and also, need additional studies to overcome those limitations. First, the results of representative respondents may limit the generalization of our findings. It did not explain a large portion of the entire population of respondents because most respondents were in almost in their early and late 20s. Thus, future research needs to assess the generalization of the model by collecting from sample in various respondents.

A second limitation is that the study focused on relatively simple. Thus, our research model is needed to reorganize research model. For examples, it can be possible to analyze the difference between high involvement groups and low involvement group or to investigate the moderating effects of product involvement the relationships between attributes of online shopping mall and purchase intention

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### End Notes

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i According to majority of references in Gefen et al.(2000), Hair et al.(1998), GFI, CFI and NFI are best if above .90, AGFI above .80, and RMR below.050, and the ratio of  $X^2$  to degree of freedom below 1:3. And also, there is disagreement in the literatures on cutoff value of RMSEA. In case of this study, Jarvenpaa et al.(2000)'s guidance was adopted below.08.

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<sup>ii</sup> It is commonly that LISREL models, including published in leading MIS journals, seldom show excellent fit values in all the indices. See the recent analysis by Gefen et al.(2003).

<sup>iii</sup> TRUST=trust, INFORM=informativenss, ENT=entertainment, IP= purchase intention, BRAND=product assortment, INVOL=involvement

# Marketing in Emerging Economies of the East African Community

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## Abstract

**There are many economic reasons for marketers to be interested in Africa, the Continent's growing population of 740 million, abundance of natural resources, relatively unsophisticated competitive market, and fast economic growth in the past 10 years. Africa's potential as an attractive emerging market and specifically the opportunities in the newly formed East African Community (EAC) are discussed in this article.**

## Introduction

Globalization takes companies on eternal search for market niches for their goods and services world wide. Much focus has been on emerging markets in China and South-East Asia. However emerging markets in Sub-Saharan Africa has received little attention in the academic literature; the news coverage is usually bad and, most pictures show images of war and famine. This image of Sub-Saharan Africa is deceiving and hides the fact that the region is experiencing rapid economic growth. In 2004, the region's economic growth was 4.5% and 17 of the 42 countries experienced growth above 5%, and the projections for 2005 are even better at 5.5% and 7.5% if South Africa and Nigeria are excluded. [23]

The corporate sector is taking notice of the fantastic growth opportunities in Africa as many sectors are recording phenomenal growth and profits. Retailers like Metro and ShopRite are investing heavily in the region; many international banks with operations in Southern Africa are experiencing record growth and return on investment. Capital investment is flourishing and, the number of stock exchanges has risen from seven in 1989 to 19 in 2000 and, one of them, Nigeria, was the best performing stock market in year 2000. [7] The telecommunication sector is booming and Celtel, Africa's largest mobile telephone provider is cashing in on a rise in customers from 1.4 million to 5 million in just two years.[19]

Governments are paying attention to the emerging markets in Africa and, according to the government of Thailand 2.5% of its exports worth USD2.41 billion are to Africa. More importantly, the exports grew 50% in 2004 and they are expected to grow 28% in 2005. [1]

There are more economic reasons for marketers to be interested in Africa. The continent's growing population of 740 million, abundance of natural resources, relatively unsophisticated competitive market, and fast economic growth in the past 10 years. Africa is truly a prosperous emerging market and with its resources and people Africa's potential is remarkable. [18]

The newly formed East African Community (EAC) presents an attractive market that can not be dismissed and presents attractive investment opportunities in a number of sectors such as trade, tourism, telecommunications, agriculture, fishing, mining, textiles, chemicals, electronic equipment and motor vehicles. [33] Although there are less than 10 cars per thousand in the majority of countries in Sub-Saharan Africa [8] and only 4 per thousand in Uganda, there were 30,000 new cars registered in Uganda annually from 1995 to 1999 [34] this is a market hard to ignore.

The rapid economic growth and the rise of the middle classes in the EAC particularly in Kenya and Uganda have transformed the business environment in these countries, and over the past decade dramatic structural changes in the retail sectors have taken place in the EAC. Previously, the retailing industry was primarily based on outdoor markets and over the counter stores but, now it has transformed to a large extent to self-select supermarkets, convenience stores, and large supermarkets. The fastest transformation is happening in Kenya and Uganda.

Hence, this paper seeks to shed some light on some of the issues and challenges in marketing in emerging economies in East African Community and will explore the EAC socio-economic environment, the

marketing environment, and the challenges for marketers.

The socio-economic environment is analyzed in terms of social and economic indicators and the emerging trends affecting them.

The marketing environment is analyzed in terms of: the retail environment, competition, pull vs. push marketing strategies, products, distribution and logistics, price sensitivity and elasticity of demand, and promotion. Furthermore firm strategy, structure, and rivalry are discussed as well as the role of chance.

The challenges for marketers are analyzed in terms of the socio-economic and marketing environments, and the challenges firms face in overcoming unique structural restraints in the EAC.

## **Current Socio-Economic Situation**

The EAC has a large and fast growing population of 92.8 million people and at a growth rate in excess of 3% the population of the EAC is projected to be 122 million by 2015. [37]

The Purchasing Power Parity GDP is estimated to be USD100 billion in 2004. [37, 23] However the actual GDP may be much higher because unreported income and fraud are widespread [17] and because, much of the economic activity in small agricultural economies goes unrecorded in economic statistics.

A further indication of this underestimation of the actual GDP in these countries can be observed by looking at the differential in the growth rate of the broad money supply and inflation. In the EAC, the broad money supply has been growing at average rate of 13.68% from 1997-2004 but, the inflation was at an average rate of only 5.6%. Whereas increased broad money supply over a sustained period of time should lead to inflation if the size of the economy remains constant, then the fact that inflation did not rise at par with the growth in the broad money supply indicates a growth in economic activity that has gone unrecorded. Consequently, the actual GDP of the EAC countries may be twice or as much as three times greater than has been recorded.

The real economic growth in the EAC has been 3.5-4.6% in the past 7 years at the same time the inflation rates have been modest at 4-6.6%. The domestic savings and investment rates were 11.2-13.9% and 16.5-19.6% of GDP respectively. [23]

### **Factor Investment**

The factor investment in Africa is unique as much of the capital comes from official foreign aid. In 2004, the world richer nations, mostly the United States, and EU countries, donated USD50 billion to Africa, and British Treasury chief, Mr. Brown calls on the richer nations to double their contributions. [31] In addition to this huge amount of public foreign contributions are the contributions made by foundations, relief agencies, and individuals. These contributions result in unprecedented inflow of capital and, it should be considered as a foreign direct investment as most of it goes for the development of factor conditions in the African countries. The factors being infrastructure, education, health care system, and such. In addition is the traditionally defined foreign direct investment (FDI) by corporations, which amounted to USD20 billion in 2004. [36] In comparison, the total FDI in China was USD60.6 billion in 2004. [26]

The factor investment in education and training has been significant in the nations of the EAC. The UN estimates that adult literacy rate will be 70-80% in 2005, and primary school enrollment is 100% in Uganda, somewhat less in Kenya 97% and 47% in Tanzania. Enrollment in secondary and tertiary schools is still very limited, [41, 35] which poses challenges for businesses entering the EAC because of shortage of skill workers and the resulting low productivity.

Repatriated salaries from workers working oversea, called "Keiyo," are a significant infusion of capital for the region and may exceed the regions largest export commodity.

When the development aid from governments, agencies, and private institutions, the FDI, and repatriated income are added up, then the total capital infusion into the EAC creates a fast growing emerging market for international marketers.

The following section discusses the socio-economic trends in each of the EAC countries.

Uganda has moved away from socialistic economy of absurd poverty and dependence on foreign exchange controls and inefficient state run enterprises to market driven free economy. Most of the former state own enterprises have been sold off and are now operated at a profit instead of being dependant on government subsidies and

protection. The Ugandan currency exchange rate floats although the Bank of Uganda maintains the exchange rate in certain range with direct market intervention.

In 2004, the GDP per capita was USD402 and it is expected to grow at 5.5% [15], the inflation is expected to remain at 3.5%. In 2002, official foreign aid was USD606 million, and FDI was USD274 million, the capital formation stood at 22% of GDP. The agriculture sector contributed 31% of the GDP, industry 21%, and services 46%. [35, 41]

Kenya has made similar transition to a free economy, it has progressed further and has achieved surprising success in cement, capital markets, banking, road transportation, as well as in some transport and machine manufacturing industries. The coffee, tea, and flower industries have achieved international quality standards. The Mombasa tea auction is the world's third largest in volume and the largest in terms of export. [25]

The Kenyan based Africa Online is one of Africa's premier internet service providers. The Nairobi Stock Exchange was established in 1954, and is the fourth largest in Sub-Saharan Africa. [22]

In 2003, the GDP per capita was USD437 and it is expected to grow at 1.2%, the inflation was 6.6%. In 2002, official foreign aid and grants were USD560 million, and the International Monetary Fund(IMF) resumed lending to Kenya after a three year freeze and lent the country USD252 million, [29] the gross domestic investment stood at 3% of GDP. Agriculture contributed 15% to the GDP, industry 19%, and services 64%. [41]

Tanzania begun its economic structural reforms in 1992; many state owned enterprises have been privatized, exchange controls have been eliminated, and competition increased in many sectors. Still, Tanzania is lacking behind in economic development because of stubborn attachment to obsolete communist economic policies which hamper the potential the country has in a host of economic sectors. Tanzania has large fertile land, an assortment of mineral deposits including gold, gemstones, iron ore and, natural gas and, opportunities to develop its tourism and fishing industries. Manufacturing is limited and has great potential. [38]

In 2004, the GDP per capita was USD235 and it is expected to grow at 4.3%, the inflation was 4.3% and is decreasing. In 2002, official foreign aid was USD1.2 billion, and FDI was USD240 million, the capital formation stood at 17% of GDP and agricultural sector contributed 45% of the GDP. [35]

## **History of the East African Community**

The co-operation among Kenya, Uganda, and Tanzania dates back to the time the two first countries were colonies of the United Kingdom (UK). Tanzania was German colony but, after the WWI Tanzania came under UK. Tanzania remained under UK administrated UN trusteeship until independence in 1964. Various co-operative agreements have been in force since and, include a Ugandan/Kenya Customs Union established in 1917, which was joined by Tanzania in 1927. The East African high Commission functioned from 1948 to 1961; the East African Common Services Organization was established in 1961 and it was in effect until it was succeeded by the establishment of the East African Community in 1967.

In 1977, interregional co-operation came to an end but it resumed with the signing of the East African Co-operation agreement in 1993. Since, various co-operative treaties and agreements have been initiated and lead to the formation of the East African Community, which was established July 7th, 2000 by a treaty among Kenya, Tanzania, and Uganda. The establishment of the EAC set into motion further collaborative protocols between the nations and included agreements on standards, crime prevention, establishment of free trade area, economic development strategy, scientific and technological collaboration, establishment of legislative assembly, courts, and East African customs union, which was formally established in November 2004 and with the objective of creating a customs free internal market and harmonized external tariff rates. [6, 10, 11]

## **Retail Environment in the EAC**

The emerging markets in EAC have their own particular characteristics. Therefore the success of the marketing strategy for EAC depends on the careful analysis of the traditional marketing mix elements and selecting the appropriate product, price, promotion, and distribution strategies for the EAC market.

The EAC is a relatively small market characterized by unsophisticated demand conditions. Most buyers' needs are basic but, the rising level of affluence in the EAC has increased buyers' sophistication and demands for greater selection and medium quality products.

The retail sector in the EAC has undergone a radical transformation in the last decade. The retail sector has become more formalized with significant portion of the market transformed from small shops, outdoor markets, and kiosks to supermarkets and large retail stores. Each of the EAC countries is different, so, the following section analyses the retail environment in Kenya, Uganda, and Tanzania separately.

**Kenya.** Kenya has the most advanced retail market in the EAC. Kenya has more than 200 supermarkets and Kenyan small shops number in the tens of thousands. For example, Nairobi alone has 119 independent supermarkets, and further 34 operated by supermarket chains. In addition, there are 10 hypermarkets, 5 shopping malls, and hundreds of specialty retail stores. The Kenyan supermarkets have up to 30% of the retail markets share in the country. [40, 39, 13]

The Kenyan based Uchumi is East Africa's largest supermarket chain; it has 27 supermarkets in Kenya and one in Uganda. Recently, an unknown strategic investor acquired 35% equity stake in Uchumi, the company plans to use the funds to strengthen its balance sheet and finance growth. [21] Other Kenyan supermarket chains are the Nakumatt, Tusker Mattresses, and Ukwala Group. Foreign retailers have taken notice of the emerging market in Kenya and the Metro Cash&Carry and Woolworth's have set up operations in the country. [40] In addition to the bloom in supermarket expansion other parts of the retail sector has boomed in the recent years. Franchised fast food outlets, furniture stores, petrol stations, and convenient stores have experienced an expansion bonanza.

**Uganda.** The Ugandan retail market has gone through a dramatic transformation in the past decade. In the early 1990s, most retailing was done in small shops, outdoor markets, and kiosks. Only a handful of medium size stores were in the country. Now, much of the retail operation has moved to independent small supermarkets, chains of convenience stores, and large supermarket chains.

Foreign retailers have noticed the emerging market in Uganda; the first large hypermarket was established by Metro Cash&Carry in 1998. Initially, Metro Cash&Carry operated as wholesale discount store, with a retail concept similar to the Wal-Mart's Sam's Club concept, but later changed the format and opened to the public. Additionally, Metro Cash&Carry has established a number of the smaller KwickSave supermarkets around the country. ShopRite followed suit in 2000 and has two stores; Woolworth's entered in 2002 and it has established two upscale department stores; Megasave and the Kenyan Uchumi supermarket chain are recent entries and have one supermarket each. [28]

In the mid 1990's, the petroleum import and distribution industry was liberalized, as a result the number of petrol stations has quadrupled. In 1996, Shell Uganda opened the first convenience store in the country at the Bugalobi Shell petrol station. Since then convenience stores have been set up at most petrol stations.

Additionally, foreign fast food chains and furniture stores have entered the emerging market in Uganda.

**Tanzania.** The Tanzanian retail environment is undeveloped as its development was hindered by archaic communist government policies, and the development of the Tanzanian retail market did not take off until the late 1990s when these communistic government policies were lifted. The pattern of the development of the retail sector was similar to that of the retail sector in Uganda. First, was the proliferation of small over the counter shops, then introduction of small self-select supermarkets, then establishment of larger domestic supermarkets chains- the Imalaseko and Shoppers' Plaza, and finally the entry of South African retail chains- ShopRite and PnP in 2000. In 2003, PnP pulled out of Tanzania by selling its 4 stores to ShopRite. [40] In 2004, Megasave and Usave established presence in Tanzania with one store each.

## **Marketing Mix Strategy for the EAC**

### **Product Strategy**

Prior to the recent transformation of the retail industries in the EAC, most products were sold in open markets and small over the counter stores. In this retail environment the merchants would often buy items in bulk and package the goods themselves. The recent transformation of the retailing industry to more formal retail environment such as

self-select small stores and supermarkets has led to the need for standardized products of fair or average quality but relatively few features, options, and styles to minimize cost. Trade marks and brands are important and, it is particularly important to emphasize the national origin of the product or design, as foreign designed or made products are perceived of higher quality and prestige. "Made in UK" and "Design in Japan" are particularly desirable in the EAC.

Global packaging for mass market consumer items needs not to be localized if brand names are in English. The packaging should be tailored to the needs of price conscious customer. Therefore extensive consumer oriented packaging in blister packs and in multiple sizes is a waste of money. In most cases, one or two sizes of consumer packaging and one wholesale size packaging will do. For an example, most of the cooking oil is sold 500ml or 1 liter bottles, and 3 or 20 liter jerry cans for restaurants and retailers who will sell the cooking oil in containers brought in by the customers or in ordinary plastic bags. Warranties are not provided for most products and most sales receipts carry a "No Returns" note at the bottom.

#### **Distribution Strategy**

Although the distribution channels selected depend on the goods sold, intensive distribution channels are most appropriate for most consumer goods as most customers don't have personal transportation and, therefore do most of their shopping in local stores and supermarkets.

In the EAC distribution channels were typically long and relied on multiple agents and distributors. Producers sold their production at the factory door to authorized distributors who transported the good at their own cost to wholesale markets such as the Nakivubo wholesale market in Kampala; then the retailers shopped in these wholesale markets and brought the goods to their retail outlets. In the last 10 years, the trend has been to shorten the distribution channels by direct delivery by producers to retail stores. At the same time, larger private supermarkets are purchasing goods directly from producers or importing goods and, the larger supermarkets chains have established their own distribution centers for sourcing and distributing goods.

A push channel policy is most appropriate for basic consumer goods because, most customers have limited exposure to mass promotional devices such as newspapers, radio, and TV. The emphasis on push channel strategy in East Africa concurs with the findings of researchers investigating distribution strategies in other emerging economies. [4, 30, 20] A combination of push and pull policies would be appropriate for goods targeting the growing middle class customers as they will have greater access to the mass media.

#### **Distribution Centers**

Only a few distribution centers exist in EAC. The domestic supermarket chains operate their own distribution centers; ShopRite purchased PnP's distribution center in Tanzania; and Metro Cash&Carry has a distribution center in Nairobi. In Uganda, there are no distribution centers as such and Metro Cash&Carry uses its main store at the Showgrounds as a distribution center for its KwickSave network of stores.

Warehouses. Warehouses and storage yard space are sufficient in Kenya and Tanzania. However warehouse space is limited in Uganda, particularly around the capital, Kampala, where hills make the construction of warehouses difficult. Refrigerated warehouse space is limited in all three countries. Material handling equipment is in short supply and most loading is done manually.

Location. Retail outlets need to be located close to major public transit areas such as bus and taxi parks in order to attract customers and facilitate the customer's transportation of goods to their homes as most customers do not have private transportation.

#### **Inventory**

Inventory requirements are higher in the EAC than in more developed countries because, of the long transport distances, poor infrastructure, and bureaucratic delays which all contribute to longer delivery times and frequent interruptions in supply.

#### **Road Transport**

Most road trucks are general purpose flatbed or stake-bed trucks, container carriers, and tankers. Gross vehicle weight is harmonized at 56 tons for a seven axle truck-trailer combination with maximum axle loading of 8 tons on steering axle and 10 tons on other axles. Specialized trucks are limited in number.

Demand for trucks is seasonal and related to the harvest seasons: February to end of May and September to end of December. Trucks are in short supply during the second harvest season which coincides with the surge in

demand for transportation of imports for the Christmas shopping season. Road transport rates are approximately ten US cents per ton per kilometer. Lower charges apply to exports because of a lack of freight going back to the ports of Mombasa and Dar es Salaam.

#### **Railways**

The railway system in EAC is debilitated due to government mismanagement. Only a fraction of the network actually works and when it does the system is plagued with delays and corruption. For example, Uganda has 1241 km of railways but, only 220 km of it from Tororo to Kampala is functional. [6]

There are two main railway lines in the EAC. The northern corridor is from Mombasa, Kenya, to Kampala, Uganda, with a branch to Kisumu in Kenya. The southern corridor starts in Dar es Salaam, Tanzania and goes to Mwanza on the shores of Lake Victoria where there is an onward rail ferry to Kampala. The Tanzanian railway system is important for Zambia. The cost of rail transport is slightly lower than compatible road transport.

#### **Air Cargo**

Exports by air are mainly fresh fish, fruit, vegetables, and flowers; exporters complain of periodic shortage of air cargo space and high transport charges. Exports exceed imports on most destinations except Dubai and Johannesburg. Hence import air cargo rates are one half of the export rate which was USD0.65 per kg from Kampala to London in 2003.

**Tariff Barriers.** As of July 1, 2005, external tariffs for the EAC countries will be harmonized and set at three levels according to how much the imports have been processed. Raw materials have zero tariff; semi-processed goods have 10% rate; and manufactured goods 25% tariff. [24] Internal tariffs will be eliminated with the exception of Kenyan goods which will be charged 2-25% import duty in Uganda and Tanzania according to a list of 762 items published by the EAC on January 16, 2005. The import duties will be phased out by 2010. [16]

#### **Import Quotas and Licenses**

In the past there have been various restrictions of specific imports in the EAC countries, the obvious one being on the importation of arms and ammunitions of any type. Others vary by country and the restrictions are often meant to protect an industry or a specific company. For an example, Uganda has prohibited the importation of lead acid batteries for vehicles to protect the Uganda Battery Ltd, the country's only battery manufacturer.

#### **Spare Parts and Supplies**

In the EAC most tools, parts, and production machinery need to be imported. The local sourcing of spare parts is hampered by underdeveloped spare part distribution system. Most companies of any size get their spare parts delivered directly from abroad via express courier or by have their own imported stocks.

Furthermore, there is a critical shortage of trained technicians and maintenance personnel; as a result firms initiate in-house training and apprenticeship programs. For these reasons, maintenance costs are increased and productivity of existing facilities and equipment is decreased due to extended downtimes caused by lack of spare parts and poor quality repairs and maintenance.

#### **Price Elasticity of Demand**

The customers in EAC tend to be highly sensitive to price. Hence the elasticity of demand is high and steep increases or declines in sales occur when the price is adjusted up or down.

#### **High-Midrange-Low and Discount Pricing**

Pricing strategies are the prime questions merchants face when deciding on positioning their businesses in the emerging market in EAC. Should it be the upper class luxury market, the middle class, or the mass consumer markets, the trend in EAC is lead by the international retailers(Metro, ShopRite, and PnP) which have targeted the mass market, and the low/and middle class consumers. [40]

Special discount pricing or promotional pricing is not common the EAC but, merchants who have experimented with discount pricing have achieved significant success in some instances.

#### **Negotiated Pricing**

Prices on most consumer goods are fixed. However, price negotiation is the norm on large ticket items such as electronics and home appliances, and it is considered rude if the merchant is not willing to negotiate the price and/or terms. The expected negotiation range is approximately 10% percent. Consequently, merchants adjust their pricing accordingly.

### **Seasonality in Pricing**

The price of most goods and services rises during the Christmas shopping season, which is from end of November to the end of the Christmas holiday season in the second week of January. Prices of all produce and food staples are seasonal. Transport prices are seasonal as mentioned above.

### **Export Pricing**

Merchants need to give special concerns to export pricing as the value added tax (VAT) and exercise/import duties are refundable on goods that are re-exported. Businesses are well advised to set up programs to facilitate the collection of refunds on the behalf of foreign merchants who purchase smaller quantities of goods. The firms in the EAC have re-export opportunities to: Democratic Republic of Congo, Sudan, Burundi, Rwanda, Zambia, Malawi, Zimbabwe, and Mozambique. The African Growth and Opportunity Act may facilitate export opportunities to the United States of America. [32]

### **Promotion**

#### **Advertising**

The product and the target market determine the media, timing, reach, frequency, and continuity of advertising in EAC.

The media of choice is radio as it is the most accessible medium for the general public for several reasons. First, radio listening is a low cost, most accessible, and popular mass medium for the general public. Second, in comparison to reach of other mediums the radio advertising is the cheapest alternative for marketers. Third, most people have radios on all day at home and at work. Fourth, public transport such as buses and minibuses (taxis) pipe the radio to loud speakers in the back of the vehicles for the entertainment of passengers. On the other hand billboards are common and appear to be effective in promoting brand names. News paper and TV advertising are expensive by contrast to the reach they have. The burgeoning use of mobile phone SMS messages and the opportunity to use SMS messages as an advertising medium is an unexplored opportunity in the EAC

The best timing of radio advertising depends on the product but, for mass consumer products the morning and evening rush hours are the best times because of the captive audience in the public transport system. The morning rush hours are between 7-10 in Uganda and Tanzania and 6-9 in Kenya; evening rush hours are 5-10 and 5-9 respectively.

Frequency is important and continuity is typically much longer than in developed countries.

The messages need to be localized to the languages most commonly used. In Kenya and Tanzania, Kiswahili is the lingua franca but, in Uganda most messages are in Luganda or the regional tribal languages. Messages contained in musical lyrics and sing-a-longs appear to be particularly effective.

Most of the advertising budget should be allocated to radio advertising in Uganda and Tanzania with a small portion to billboards as oppose to, radio and TV in Kenya.

### **Sales Promotion**

Contests/Sweepstakes have been used successfully by soft drink bottlers and breweries. Still, few others have adapted this method. Samplings and demonstration are rarely used. Yet, they have promising prospects as a low cost personalized medium. The issuing of warranties or guarantees is rare.

Personal selling has great potential in the EAC because, of the low cost of the local labor. Sales personnel should be recruited and trained locally and, commissions encourage performance. Though salary and commissions are most often paid monthly, employees have difficulty with budgeting that long and, weekly or biweekly payments increase moral and reduce fraud. Effective controls of stock and money are paramount because, of high levels of corruption and fraud.

Publicity and public relations. The recent trade liberation and privatizing of state owned enterprises in the region still has its skeptics and is in no form securely institutionalized. Hence, publicity and public relations as well as corporate social responsibility need to be given careful consideration and appropriate funding. Corporate sponsorship of socio-cultural events and public appearances of corporate officials are the norm.

## **Firm Strategy, Structure and, Rivalry**

Competitive strategy is mostly based on price because of the price elasticity of demand and rather unsophisticated

marketing culture.

The structure of most business is highly hieratical with multiple layers of management who exercise little decision power; most decision making is centralized in the owner or the managing director. The titles of company officers follow the British convention.

A wave of privatization has significantly reduced the government ownership of businesses. However government officials fully or partially own many businesses; the ownership is either overt or covert through agents or family members. The Asian community, who are people originating from the Indian Sub-Continent, control significant portion of economic activity in the EAC. Nairobi has the only stock exchange with active public ownership of companies and many of the companies listed are local subsidiaries of multinational companies. Still most companies in the EAC are family owned.

Competitive rivalry is low and responses to competitive behavior are slow and usually they do not materialize until sales and profits have dropped to unaccepted levels. Price collusions and cartels are common.

## **Role of Chance**

Chance events are independent of a nation and firms have limited ability to influence them. [27] Nowhere is that more clearer than in the EAC countries where chance events play significantly more role in the economies than in more developed countries. The most important chance events affecting EAC are: fluctuations in world commodity prices, policies of foreign governments and international organizations towards aid, the El-Nio in the Pacific Ocean, and war.

The EAC countries are very dependent on fluctuations in the world's commodity prices and they can create recessions or economic booms. For instance, the 11.5 percent growth in Uganda's GDP in 1995 coincided with sharp rise in world coffee prices to USD1.52 per pound which is nearly three times the average market price in 2004. Whereas coffee constitutes more than one half of Uganda's total exports any change in coffee prices is going to have major impact on the economy in the country. [34, 14]

The policies of foreign governments and international organizations towards aid and loans significantly impact the economies of the EAC. For example, the International Monetary Fund (IMF), most governments, and international institutions suspended aid and lending to Kenya in 2000. Accordingly, Kenya plunged into recession and remained there until aid and lending resumed in 2004. [29, 35]

An El-Nio in the Pacific Ocean impacts the rainfall in East Africa hence the economy. El-Nio (sometimes spelled Nino or Ninyo) occurs every 3-4 years when the ocean currents of the Pacific cost of South America change the direction of their usual flow. The El Nio normally begins at Christmas time and lasts 8-9 months [3, 12]. The El Nio changes the weather pattern in East Africa; usually, the El-Nio results in a year of drought; consequently agriculture suffers so the economies are negatively affected. After the El-Nio disappears, a year of heavy rainfall usually follows resulting in bumper crop and economic prosperity. After an El Nio occurred in 2001 many areas of the EAC were severely affected . Apparently, another El Nio has started a new drought in late 2004 causing crop failures and reduction in hydro electricity generation. [5, 2]

War and conflict have a negative impact on the economies in the EAC and the level of impact is related to the intensity of the conflict. Outright wars wreck the economies like happened in the civil war in Uganda between 1972 and 1986. An involvement in the internal conflict in other countries has significant consequences too; like happened in 1998 when Uganda got involved in the revolution in Zaire. Though the official GDP rose by 5.6% it was boosted by another sharp rise in world coffee prices to USD1.30 per pound. Meanwhile, many sectors of the economy suffered sharp decreases in economic activity and deflation. [34, 14]

Low intensity conflicts carried out by the many rebel movements operating inside the countries appear to have little effect on the economies as the conflicts are usually limited in scope and are located in remote areas where little economic activity takes place.

## East African Community in Perspective

East African Community is a sparkling example of rapidly emerging economy. Its attractiveness has thus far rested on export opportunities of basic low quality goods, vehicles and, equipment; the procurement of government contracts, fulfillment of development assistance, and sourcing of basic commodities. EAC's uniqueness as a market comes from its rapid economic growth, unsaturated market, low competitive intensity, large population, emerging middle class, trade and investment liberation, harmonized internal market, and a tariff protection of 25% on imported finished goods.

The main restraints on marketing in the EAC are: insufficient management, marketing, and technical knowledge; undeveloped financial markets, insufficient supporting industries, and corruption.

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# Effects of Culture, Product Type and Price on Consumer Intention to Purchase Mass Customized Products Online

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## Abstract

Do culture, product type and price have an impact on consumer intention to buy mass customized products online? The initial hypotheses are that consumers' intentions to purchase mass customized goods online will be affected by individualism, uncertainty avoidance, power distance, and masculinity dimensions of a national culture. Also, it is hypothesized that consumers are more likely to buy mass customized search goods than experience goods, and their purchase intentions for a mass customized product will not be influenced by price premium up to some level.

Results indicate that individualism has a significant effect on the purchase intention for mass customized products. As expected price premium does not have a significant effect on the purchase intention for mass customized products, and product type has a significant effect. Also, individualism x price interaction has a significant effect. Major findings and implications are discussed.

## Introduction

Mass customization strategies have become increasingly popular in various types of businesses [13]. Mass customization involves "offering products individually customized to customers' needs" [15]. Technological developments in flexible manufacturing as well as information technologies have enabled firms to implement mass customization.

Internet and related technologies have emerged as an essential vehicle for implementing mass customization in an economical way [14, 50]. Obtaining accurate, timely, and relevant individual customer information is a key problem facing many companies trying to customize. By providing a direct connection between manufacturers and final customers, companies now have an efficient method of collecting the data they need to implement mass customization. Firms have adopted web-based mass customization to successfully market a wide range of products from personal computers, eyeglasses, bicycles, and coffee to greeting cards. For example, computer manufacturer Dell has met the diverse needs of different customers by producing thousands of different computer configurations [50].

Online mass customization may provide a new direction in the long lasting, however, not resolved debate in international marketing, which is standardization versus customization debate [21, 55]. One primary advantage argued for standardized marketing strategy over customization is a low cost, which is realized from its economies of scale in production and marketing [57]. However, a standardization approach has an inherent weakness in that it is a product orientation, rather than a customer orientation. The marketing literature has suggested that a market orientation, in which customers and competitors are the focus of a company's strategy, can lead to enhanced business performance [22, 29]. A company that emphasizes product costs can ignore differences in customer needs and preferences across countries, and become vulnerable to competitive attacks in individual foreign markets [5].

It seems that mass customization can take advantages of both standardized and customized strategies because it offers individually customized products at costs that are almost the same as that of standardized production and mass marketing. While the concept of the global, online mass customization sounds unique and exciting, it has not been validated with consumers [13].

Our understanding is very limited on consumer responses to and factors affecting consumer responses to mass customization. Therefore, we would like to examine consumer responses to online mass customization across

different cultures. More specifically, we would like to empirically examine issues that are vitally important for firms considering mass customization strategy. These issues include: How strongly do consumers intend to purchase a mass customized product? Do consumers of different cultural orientations show differential responses? Do consumer responses vary across product types? How much does a price premium of mass customized products affect consumer responses?

In the following sections we develop the research hypotheses, describe the experimental study used to test the hypotheses, report the results, and discuss the implications of the findings.

## **Conceptual Background and Hypotheses**

### **Mass Customization and Customer Perceived Value**

The essence of mass customization is to provide what a particular customer wants by transforming a standard product into a specialized solution for an individual [35]. Von Hippel [49] highlights the importance of customer involvement in designing products, as the customer has the best understanding of his or her needs. Customization of product features increases the value of the bundle of benefits that the customer receives from a product or service. Mass customization can thus enhance customer perceived value.

Customer perceived value is the difference between the prospective customer's evaluation of all the benefits and costs of an offering, and the perceived alternatives [25]. Mass customization will increase value if the increase in the value of the bundle of benefits provided by the mass customized product is greater than any incremental cost associated with it. Being value-maximizers, consumers will be more likely to purchase customized products if these products provide greater value.

Different aspects of the marketing mix elements are likely to affect customers' perceptions of the value of the incremental benefits and costs associated with mass customized products. The price premium, the type of product, the degree of personalization, and the distribution medium, for example, will affect the consumer's perceived value of the customized product. The aspects we examine include the impact of product type and price on consumer response to mass customized products across different cultures.

### **Mass Customization and Culture**

Since Levitt [26] some scholars posit that globalization has created a progressively more homogenized world market, with an increasing number of consumers from diverse geographic locations and cultural backgrounds sharing the same preferences. The view that people around the world live in a more uniform pattern has facilitated the emergence of global brands with relatively standardized marketing strategies employed across cultural boundaries [56].

Yet, other researchers report an evidence of increased divergence, especially among industrialized countries [45]. For example, in Europe, with economic union and a progression toward the standardization of the political and social infrastructure, national cultural values are strongly rooted in history, and appear to be stable over time [9]. It has been reported that consumers from different cultures have different attitudes, preferences, and values, and remain reluctant to purchase foreign products even after much exposure to globalization [42]. Cultural differences impact consumer behaviours such as attitudes and persuasion [1], diffusion of new products [43, 41], and product and service usage [53].

Accordingly, we posit that consumers respond differentially to mass customized products across different cultures. For example, New Zealand is a more individualistic, less uncertainty avoiding, less power distant, and more masculine society compared to Korea [See 18] and the difference may affect consumer responses to mass customized products differentially between the two countries.

The four cultural dimensions suggested in Hofstede are likely to be relevant in explaining cross-cultural differences in consumers' purchase intention, which is a multi-faceted concept. Individualism implies a loosely knit social framework in which "I" consciousness and individual initiative are emphasized, whereas collectivism indicates a tight social framework in which "We" consciousness and belonging to organizations and membership are emphasized [18]. People of high individualism society value a private life, individual decisions, autonomy, and variety. In contrast, people of high collectivism society value group decisions, order, and security. For example,

Chinese society has historically focused on harmony and conformity in governing all interpersonal relations, and de-emphasized personal goals [30]. On the other hand, in Europe and North America, individualism is a desirable trait worth striving for, thus seeking a mass customized product will be stronger.

Uncertainty avoidance indicates the extent to which a society feels threatened by uncertain and ambiguous situations and tries to avoid these situations [18]. Individuals of a strong uncertainty avoidance society tend to establish more formal rules and not tolerate deviant ideas and behaviours. Being different from others is not desirable, thus seeking a mass customized product will be weaker in a society of high uncertainty avoidance.

Power distance is the extent to which a society accepts the fact that power is distributed unequally [18]. In societies with a high degree of power distance, status and age are very important and generally people tend to be less innovative. It was found that the coefficient of innovation was significantly lower in countries with high power distance [51]. Consumers are less likely to seek a mass customized product in countries with high power distance.

Masculinity indicates the degree to which a society values assertiveness, achievement, and the acquisition of wealth [18]. In masculine cultures, achievement and success are more important than caring for others, and improving the overall quality of life [18]. A largely symbolic means of demonstrating achievement is by having the latest and most novel possessions [52]. The implication is that consumers are more likely to seek a mass customized product in masculine countries.

On the basis of the arguments we can posit that consumers' intentions to purchase mass customized goods online will be affected by individualism, uncertainty avoidance, power distance, and masculinity dimensions of a national culture. Therefore, Hypothesis 1 is offered as:

**Hypothesis 1a:** Consumer intentions to purchase mass customized goods online will be stronger for consumers of more individualistic country than for those of less individualistic country.

**Hypothesis 1b:** Consumer intentions to purchase mass customized goods online will be stronger for consumers of less uncertainty avoiding country than for those of more uncertainty avoiding country.

**Hypothesis 1c:** Consumer intentions to purchase mass customized goods online will be stronger for consumers of less power distant country than for those of more power distant country.

**Hypothesis 1d:** Consumer intentions to purchase mass customized goods online will be stronger for consumers of more masculine country than for those of less masculine country.

#### **Mass Customization and Product Type**

As a retail channel, the Internet provides both marketers and consumers many benefits over alternative channel formats. Most notably, it eliminates time and space barriers, and facilitates efficient consumer information search [17, 33]. Its major limitation is that Internet shoppers cannot physically experience a product at the time of purchase. Indeed, the best-selling products on the Internet are products that can be digitized or that are dominated by search attributes [37]. This Internet sales pattern is consistent with the link between product characteristics and retail store patronage that has been noted in conceptual and empirical research [2, 39, 48].

The Internet significantly facilitates consumer search but does not enable consumers to directly experience a product before purchase, so it is more appropriate for selling search goods than experience goods [6, 24]. A consumer can obtain full information on the dominant attributes of a search good without direct experience. The qualities of an experience good cannot be determined by the consumer prior to purchase or use [31, 32]. For experience goods, information search for dominant attributes is more costly or difficult than direct product experience [24, 31, 32].

Girard, Silverblatt, and Korgaonkar [12] found that consumers are more willing to shop from Internet retailers for search products than experience products. We posit that this finding will be similarly applied to other classifications of product types. That is, consumers are more willing to shop from Internet retailers for cognitive products than affective products [47], for utilitarian products than value-expressive products [36], and for instrumental products than hedonic products [16].

Would mass customization make a difference in consumer willingness to purchase search versus experience goods in online settings? We would expect mass customization to make it more likely that search products would be purchased online; besides providing consumers specific information about important attributes, mass customization ensures that the attribute specifications match consumer preferences. The potential impact of mass customization on purchase intention for experience goods is less clear. Mass customization does not let the

customer try or use a product before purchase, except for products that can be digitized. The costs associated with buying customized experience products online are also likely to be higher than the costs associated with buying customized search products. Buying customized products generally involves non-monetary costs such as additional time, effort, and uncertainty as well as monetary costs like price premium [4]. Consumers are likely to spend more time and effort in evaluating experience goods than search goods.

Participation in the process of mass customization may however, contribute toward making the consumer more comfortable with buying experience goods online. The evaluation of experience goods can be highly subjective and personal taste plays an important role in their purchase. Participation in the mass customization process may produce psychological benefits that might make consumers more comfortable in buying an experience product online than they would be otherwise. For example, consumers are more satisfied when they are allowed to specify their attribute preferences in selecting products than when they are not [20]. Participation in the mass customization process can also provide consumers some sense of control over the exchange process. Van Raaij and Pruyn [46] suggest that an increase in the sense of control should make customers more willing to buy a product.

The potential beneficial consequences of mass customization for experience products, however, appear to be limited as compared to the potential beneficial consequences of mass customization for search products. Accordingly, Hypothesis 2 is offered as:

**Hypothesis 2:** Consumers' intentions to purchase online mass customized search goods will be stronger than their intentions to purchase online mass customized experience goods.

#### **Mass Customization and Price**

It has been suggested that customers are often willing to pay a premium for customized products because their needs are better met [4]. If a company facilitates the creation of a co-production process to produce a product tailored to the customer's need and the product adds great value, the price becomes a less important factor [50]. There is less incentive for customers to comparison shop based on price.

Similarity across competing products or brands is reduced with the mass customization, and making a direct price comparison will be more difficult for consumers. Consumer search cost for price is generally low in online [3], however, the cost increases in this case. Consumer search cost for price and that for product attributes, such as product quality is a key concept in online price research. Lynch and Ariely [27] found that price competition is reduced when the cost of searching for prices is high relative to the cost of searching for product attributes. Similarly, Zettelmeyer [54] explores a scenario where firms compete with two distribution channels and control the amount of product information provided to consumers who are uncertain about their preferences. The author shows that firms can achieve finer consumer segmentation by strategically influencing search costs.

However, if the price goes up beyond a certain range, customers may begin to substitute less customised products. Consumers search for information until the marginal cost of obtaining a unit of information is equal to the marginal benefit of possessing a unit of information [44]. Thus price search will increase as the benefits of search increase. The benefits of consumer search should increase as the price of a seller's customised product goes up.

Also, the conventional wisdom is that the Internet lowers the cost of distribution and the cost of consumer search, thereby lowering barriers to entry and intensifying price competition [2, 3]. The convenience, time-saving aspects, and product matching features of online markets can increase the consumers' motivation to search price information, indicating that consumers are becoming more sensitive to price [23].

We should consider the generally negative implication of higher price as well as the positive implication of consumer willingness to pay premium price for and the reduced price comparison by mass customization. Therefore, Hypothesis 3 is offered as follows:

**Hypothesis 3:** A price premium up to some level will not affect customers' purchase intentions for mass customized products.

## Research Methods

### Experimental Stimuli

A pre-test was conducted to identify both product stimuli for search and experience goods and important product attributes to be customized. Forty seven undergraduate students at a large New Zealand university participated in the pretest.

Subjects were provided with four products including computer desks, desk lamp, sunglasses, and blue jeans. These products were selected because they are used extensively by college students and have been subjects of study in other research. The subjects were asked to rate the products on three items intended to capture the difference between search and experience goods: 1) The quality of [name of product] can be judged by web-based information; 2) the quality of [name of product] can be judged without physical examination; and 3) the quality of [name of product] can be judged without trial use. The responses used a seven-point Likert scale (1 = Do not agree at all, 7 = Agree completely).

The mean rating on the three items to identify search and experience goods was highest for the computer desks and lowest for sunglasses. We thus selected the computer desks as the experimental stimulus for the search good and sunglasses for the experience good. Computer desks (CD) and sunglasses (SG) were significantly different from each other in terms of each item's score and average score of the three items (CD = 5.93, SG = 4.67,  $t=5.16$ ,  $p<.001$ ).

For each product in the set of products, subjects were provided with eight product attributes and asked to rate the importance of these attributes for purchase. The product attributes were identified using *Consumer Reports* and student input.

To become a meaningful customization the product or service should provide attributes that customers truly care about [34]. Thus, product attributes of the two products should be important and the two sets of product attributes should not be different from each other in terms of perceived importance. Construction, height, width, and CPU storage were selected for CD and lens material, lens diameter, nose bridge length, and frame material were selected for SG. Respondents were asked to evaluate the importance of the attributes in purchasing the products. The average score of the four attributes was 5.29 for CD and 5.31 for SG, and there was no significant difference between them ( $F=0.004$ ,  $p=.94$ ).

### Experimental Design and Procedure

In this study culture is coded by the subject's nationality and hence is a within-subjects factor. Product type factor has two levels, that is, computer desks as a search product and sunglasses as an experience product. Price has three levels: same as, 15% higher and 30% higher than a standard price. The price levels were set keeping in mind customer perceptions of value. Assuming customized products better match customers' needs, customers should be willing to pay a premium price for them. They can obtain maximum value from mass customized products if they are available at a price similar to the standardized mass produced product. Thus, the same price level and two price levels at intervals of a 15 percent increase beyond the standardized price were selected.

Subjects were assigned randomly to one of the six between-subjects, experimental conditions. Subjects were told an Internet shopping mall that had developed a plan to customize products was evaluating its plan on a small scale. They were asked to assume that they happened to find an information window while surfing this Internet shopping mall. They were shown an announcement offering customers customized computer desks (sunglasses). Then, subjects were shown an ad manipulation of product type and price where they could choose from different specifications for four important product attributes. Appendix 1 shows the ad for the sunglasses.

Subjects assigned to the computer desks conditions could make choices regarding construction, height, width, and CPU storage. Subjects assigned to the sunglasses conditions could make choices regarding lens material, lens diameter, nose bridge length, and frame material. The delivery information was the same for all experimental conditions, free delivery in five working days.

### Measures and Subjects

The dependent variable, purchase intention, was measured by adapting items used in previous research [10]. The four items of the scale were: 1) I will purchase the computer desks (or sunglasses), 2) Given a choice, my friends will choose the computer desks (or sunglasses), 3) There is a strong likelihood that I will buy the computer desks (or

sunglasses), and 4) I would like to recommend the computer desks (or sunglasses) to my friends. All four items were ranked on a seven-point Likert scale (1: Do not agree at all, 7: Agree completely).

To assign scores for each of the four cultural dimensions the subject was asked to name the country that she/he was born. The cultural dimension scores for the named countries were taken from [18]. The foreigner respondents residing in New Zealand for five or more than five years were classified as New Zealand residents. Some studies report that immigrants are acculturated as they reside in a host country for more than 3 years [e.g., 40]. We adopted a more conservative rule because many studies have found little or no relationship between time of residence and acculturation [e.g., 11].

A total of 116 undergraduate and graduate students of a large New Zealand university participated in this research. In terms of nationality of origin 35 students were Chinese (30.2%), 33 were New Zealanders and no other nationality took more than 5 percent of the sample. The total number of nationality of origin was 30 in this study.

## Results

### Reliability

Cronbach alpha value was .86 for the four-item purchase intention scale and the value indicates that the scale has satisfactory reliability. The average score of the scale was computed and used in statistical analysis.

### Manipulation Checks

We compare the importance ratings of the four product attributes for the computer desks (CD) and for the sunglasses (SG) to check the manipulation for product attribute importance. There is no difference on the perceived average importance of the attributes for the two products (CD=5.27, SG=5.10, F=1.31, p=.25). Nor do the two products differ from each other on any pair of individual attributes. Therefore, we can conclude that any effect on the dependent variable is not attributable to differences in the importance of the product attributes for the two products.

The computer desks and the sunglasses were rated differently from each other on each of the three items of product type manipulation: 1) can be judged by web-based information (CD = 5.17, SG = 4.50, F = 7.45, p < .001); 2) can be judged without physical examination (CD = 4.88, SG = 4.30, F = 7.56, p < .001); and 3) can be judged without trial use (CD = 4.80, SG = 4.29, F = 6.28, p < .01). The two products were also different from each other on the average score of the three items (CD = 4.95, SG = 4.36, F = 8.98, p < .001). These results indicate that the product type manipulation was successful.

### Preliminary Analysis on Culture Effects

The dependent variable, purchase intention was regressed on the four cultural dimensions to assess the relative importance of and decide analysis procedure for the cultural dimensions. Only individualism dimension had a significant regression coefficient among the four dimensions ( $\beta=.42$ ,  $t=1.96$ ). Almost the same result was obtained when each observation was coded as either high or low on each of the dimensions as in [18] and ANOVA was conducted.

Two factors emerged with having over 1 eigenvalue when the four dimensions were factor analyzed using principal component analysis. As shown in Table 1 the first factor consists of individualism, power distance, and masculinity and explains about 55 percent of total variance. The second factor contains only uncertainty avoidance dimension and explains about 26 percent of total variance.

TABLE 1: FACTOR ANALYSIS RESULTS: STANDARDIZED FACTOR LOADINGS AND EIGENVALUE

Variables	Factor	
	1	2
Individualism	<u>.93</u>	.14
Power distance	<u>-.88</u>	-.30
Masculinity	<u>.68</u>	-.36
Uncertainty avoidance	.10	<u>.91</u>
Eigenvalue (% of variance)	2.18(54.61)	1.02(25.72)

The first factor had a significant regression coefficient at  $p < .05$ , whereas the second factor did not have a significant coefficient when purchase intention was regressed on the two factors. It seems that individualism dimension represents the effect of the four cultural dimensions on purchase intention. We may conclude that the other three dimensions do not significantly affect consumers' purchase intention or at least their direct effect on purchase intention is not as large as that of individualism.

**Tests of Hypotheses**

Table 2 shows the results of an analysis of variance model where individualism dimension, product type and price level are the factors and purchase intention is a dependent variable. For each observation's country of origin individualism dimension score was taken from and coded as either high or low as in [18].

The overall model is statistically significant ( $F = 2.76, p < .005$ ). As main factors the individualism dimension of culture is significant ( $F = 3.89, p < .05$ ) and the product type is significant ( $F = 5.08, p < .05$ ). However, the price factor is not significant at  $p < .05$ . As an interaction effect the individualism dimension by price term is significant ( $F = 3.04, p < .05$ ) and individualism dimension by product type and price is significant ( $F = 3.12, p < .05$ ).

TABLE 2: ANOVA RESULTS

Source	Sum of Squares	F	P
Model	40.00	2.76	<.005
Individualism	5.12	3.89	<.05
Product Type	6.68	5.08	<.05
Price	3.66	1.39	.25
Individualism x Product Type	1.21	0.92	.33
Individualism x Price	7.99	3.04	<.05
Product Type x Price	1.43	0.54	.58
Individualism x Product Type x Price	8.21	3.12	<.05

Table 3 shows cell means and standard deviations and Table 4 shows marginal means. Combined with the preliminary analysis ANOVA results indicate that individualism dimension of culture significantly affect consumers' purchase intention for online customized products. As predicted by Hypothesis 1a consumers' purchase intention is greater in high (3.89) than low individualism condition (3.43). Therefore Hypothesis 1a is supported, whereas Hypotheses 1b, 1c, and 1d are not supported.

Hypothesis 2 regarding product type effect is supported. As predicted purchase intention is greater in search product (computer desks: 3.92) than experience product (sunglasses: 3.40).

As shown in Table 2 price factor is not significant and a multiple comparison test does not indicate difference in any pair of the three price levels. Thus, Hypothesis 3 suggesting no price effect up to some level is supported. We can note a recognizable pattern in marginal means in Table 4, although the means are not significantly different from each other. Consumers' purchase intention goes up as the price charges 15 percent premium and then goes down as the price charges 30 percent premium.

The interaction terms show an interesting pattern. It seems that the three-term interaction effect is significant mostly due to the significant individualism x price effect. In Table 3 (See also Fig. 1) we can note that for sunglasses individualistic consumers' purchase intention is greater than that of collectivistic consumers in the same price condition (3.22 vs 3.08) and 15 % higher condition (5.00 vs 2.69). However, the magnitude of the purchase intention is reversed in 30% condition (3.00 vs 3.40). The same pattern is observed for computer desks.

TABLE 3: MEANS AND STANDARD DEVIATIONS

Individualism	Product Type	Price	Mean	Standard Deviations
High	Computer Desks	Same	4.33	.97
		15% Higher	4.12	.64
		30% Higher	3.67	1.32
		Total	4.09	1.02
	Sunglasses	Same	3.22	.83
		15% Higher	5.00	.81
		30% Higher	3.00	1.00
		Total	3.36	1.12
Low	Computer Desks	Same	3.60	.84
		15% Higher	4.00	1.00
		30% Higher	3.81	1.07
		Total	3.77	.95
	Sunglasses	Same	3.08	1.83
		15% Higher	2.69	1.31
		30% Higher	3.40	1.14
		Total	2.96	1.49

TABLE 4: MARGINAL MEANS

Individualism	Mean	Product Type	Mean	Price	Mean
High	3.89	CD	3.92	Same	3.56
Low	3.43	SG	3.40	15% Higher	3.95
				30% Higher	3.47

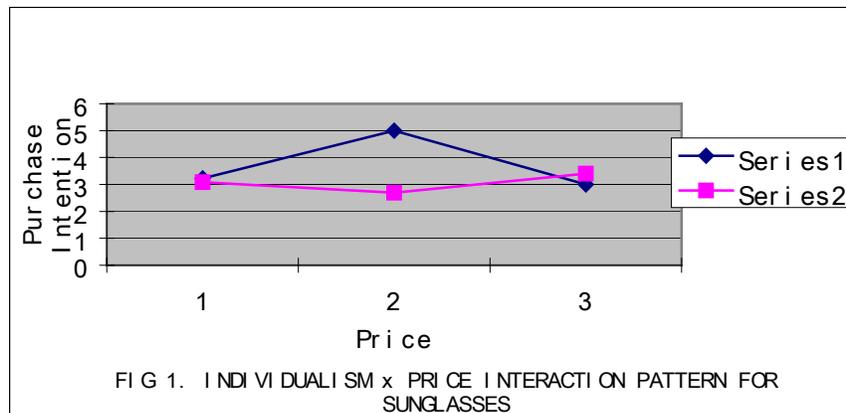


FIG 1. INDIVIDUALISM x PRICE INTERACTION PATTERN FOR SUNGLASSES

■: Low Individualism Condition ◆: High Individualism Condition

### Discussion and Conclusion

There are three primary findings of this research. First, individualism dimension significantly affected consumer purchase intentions for both the customized computer desks and sunglasses. It was found that consumers of individualistic countries are more likely to purchase customized products online than those of collectivistic countries. Also, individualism dimension is the most important factor among the four cultural dimensions in explaining consumer purchase intentions for online customized products.

This result is not surprising since extant research has reported cultural impacts in various consumer behaviours such as consumer attitudes and preferences, product and service usage, and diffusion of new products [e.g., 1, 11, 42, 43]. This research expands existing knowledge in that it empirically examines cross-cultural effects on consumers' response to mass customized products. The result implies that firms may attempt to reach consumers in more individualistic countries as a primary target when marketing customized products online. For example, New Zealand, Australia and U.S. should be better than China, Japan and Korea as initial targets.

However, the significant individualism x price interaction indicates that firms should consider varying price sensitivities to mass customized products across different cultures. Individualistic consumers tend to respond to the products more favourably than collectivistic consumers when the customized products charge the same price as or a moderate price premium up to 15% of a standard product. However, their response deteriorates considerably and their purchase intention is lower than that of collectivistic consumers when firms charge up to 30% price premium. Interestingly, collectivistic consumers' purchase intention does not decrease even at this price level. They tend to more tolerate a higher price to obtain customized benefits.

The second primary finding is that product type effect was significant. This result is consistent with extant research indicating that internet retailing is more appropriate for selling search goods than experience goods [6, 12, 24]. This result implies that the potential beneficial consequences of mass customization for experience products are limited as compared to those of mass customization for search products.

To exploit the marketing potential of the Internet, the challenge for marketers of experience goods is to make the buyers of experience goods comfortable with buying such products online. It seems that providing choice options is not attractive enough to make customers more willing to buy experience products online. Extra efforts may need to be exercised to help consumers evaluate the qualities of an experience good prior to purchase or use.

Third, price did not significantly impact consumer purchase intentions for both the customized computer desks and sunglasses. Purchase intentions were not significantly different across the three price levels. In fact, as shown in Table 4 purchase intentions increased with a 15 percent price premium, although declined in response to the 30 percent premium.

This result has two implications for the pricing of mass customized products. First, firms need to determine the increase in customer value that their customization creates and the price premium consumers would be willing to pay for the incremental value. Second, that consumers are likely to pay more for the better match provided by a customized product (although there is a limit on the price premium they are willing to pay) has important ramifications for the bargaining power between a firm and its customers. A firm loses some pricing power when it is marketing online because the Internet reduces information asymmetry between the customer and the firm; the buyer gains power [28]. The insignificant price effect we find indicates that mass customization might be an effective way to counter a firm's loss of pricing power in online settings.

It is especially beneficial to a firm when it can charge a price premium for mass customized products, but not incur disproportionate costs for the service. Technological advances have made it possible to produce personalized products at costs similar to standardized products [15]. Therefore this issue should be considered even before deciding standardization versus customization in approaching customers around the world through internet.

There are some limitations to our research, mainly that it is based on a laboratory experiment involving student subjects. It suffers from the limitations associated with laboratory experiments using student subjects, and the findings may not be generalizable to situations beyond those specified in its design.

Only two products that are familiar to students were examined and due to this limitation we cannot exclude product category-specific, idiosyncratic effects in this research. Also, only two levels of price premium, that is, 15 percent and 30 percent were examined and we might miss certain response patterns in other price ranges. Future research can examine the impact of mass customization using different product stimuli and more varying price levels.

## “ Get the Sunglasses Right for You”

Developed by Top Manufacturer!



Priced Only 15%  
Higher than a  
Standard Product!

Free Delivery  
In Five Working Days

Select freely from the following options

- ◆ Lens Material (Tempered Glass-Polycarbonated Plastic)
- ◆ **Frame Material (Metal- Plastic)**
- ◆ Lens Diameter (10 choices from 48mm to 62mm)
- ◆ Nose Bridge Length (5 choices from 13mm to 17mm)

### References

Contact the Author for a list of references



SECTION 12  
ENTREPRENEURSHIP & SMALL ENTERPRISES

2005

# **Human Resource Development: ICT and Advances Technology Adoption amongst SMEs in the Industrial Sector**

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## **Abstract**

This paper is based on a research study to assess the ICT adoption in IMT-GT region in the industrial sector, specifically the small-medium enterprises in Malaysia. The study was conducted in a form of survey research using a cross-sectional approach where a sample of SMEs representing the production and manufacturing firms listed in the Federation of Malaysian Manufacturers (FMM, 2003) were sought. Sampling technique in the form of proportionate random sampling was used by taking into account the different sample of frame sizes according to the industries (Kerlinger, 1986). A total of 200 firms were selected in which questionnaires were sent and 84 usable returns were received representing a 42% response. Results of the study showed a small number of K-Workers present in the SME firms was only 33%. There was also a low degree of technology and ICT adoption among the SMI firms with only half of the firms invested in technology and/or ICT. However, there was a positive indication towards increasing the number of K-Workers among SMEs in the study as all respondents have access to e-mails. This can be seen as a motivating factor towards encouraging more SMEs to adopt ICT and changing the way employees perform their business activities moving towards achieving the long-term competitiveness in the knowledge economy. The study indicated that the level of ICT adoption among SMEs is currently still low and in its infancy in IMT-GT region especially the four states in Northern Region of Malaysia. The survey results showed a significant contribution of ICT adoption in SMEs growth. This study found that Malaysia has comprehensive ICT support programs which include: ICT policy from the government/agency to SMEs ; access to digital infrastructure and technologies; access to network ; and access to knowledge creation.

## **Introduction**

Malaysia is fast moving towards the knowledge economy underpinned by innovation and enterprise. This can be further expedited by the small and medium industries (SMIs) known to encourage innovation, promote competitiveness, create employment and wealth across society (DTI, 1997). The SMIs can play an important role in leveraging the nation's economy by having a workforce that is highly skilled, trainable in new technology, and knowledgeable. They have the capability to be more innovative and can provide greater flexibility to the economy and encourage the creation of new jobs. They also encourage healthy competition both within the domestic market and internationally. Recent findings have shown that the small and medium industries are now going international with the help of ICT, especially the Internet, to enable e-commerce (Westhead et al., 2002).

A knowledge-based economy would require a workforce that is highly skillful, learned, possess a positive motivation and attitude, innovative and possess entrepreneurial skill to grab the many opportunities that are widely available as a result of globalization and the proliferation of advanced technology. To achieve this, greater emphasis should be given in enhancing the workforce equipped with academic credentials, technical requirements and the right skill set that can increase the work efficiency with positive attitude and creativity. These knowledge workers (K-Workers) are vital ingredients for the nation to transform itself into a knowledge-based economy.

Reports on the current scenario of human resource development of SMIs in Malaysia have not been encouraging. SMIs in Malaysia are still operating in the traditional way with mostly family-based (Hodge, 2001), using traditional and obsolete technology to produce cheap and low quality products with limited market penetration. Among the problems faced by SMIs include lacks of able personnel to negotiate fundings (Chee,

1979), lacks of expertise in using and managing technology (Raymond, 1990 and Anderson, 1987), lacks of skilled workers (Moha Asri et al., 2000), and poor user attitude towards technology (Lees and Lees, 1987).

Previous studies have shown a close relationship between the individuals and the organizations they belong. This is linked to the characteristics of human resource as contributing to the organizational development, which include: flexibility and adaptability (Waterman et al., 1994; Atkinson, 1984; Blyton and Morris, 1991); increase in individual competency (Cappbeli and Crocker-Hetter, 1996; Gorsline, 1996; Holms, 1995; Lei and Hitt, 1996); Individual workability (Arthur and Rousseau, 1996; Bates and Bloch, 1995; Ellig, 1998; DeFillippi and Arthur, 1996); and High Achievement (Sandberg, 2000). In today's era of k-economy, human resource development is focusing on the capability of individuals and the organizations adapt themselves with the latest information and communication technology (ICT). This is to ensure that the organizations are able to compete globally in accordance with the current demands. This paper attempts to make an assessment of the presence of k-workers in SMEs by examining their usage of ICT and other related technology.

#### **IMT-GT Region in Malaysia**

The concept of the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT), first mooted in 1990, has spurred regional cooperation in economic activities and boosted development by exploiting the complementary functions and comparative advantages of the participating nations. The three IMT-GT areas combined offer a wealth of resources and a consumer base of 21 million people, both a source of labour and a ready market for goods and services.

The four Northern States of Malaysia, the five provinces of South Thailand and the two northern provinces of Sumatra, Indonesia, form one sub-regional growth area of the ASEAN region. This study focused on Malaysia's four Northern states which include Perlis, Penang, Kedah and Perak. These states provide potential domestic market access around 4.9 million population. The states profile is exhibited in Table 1

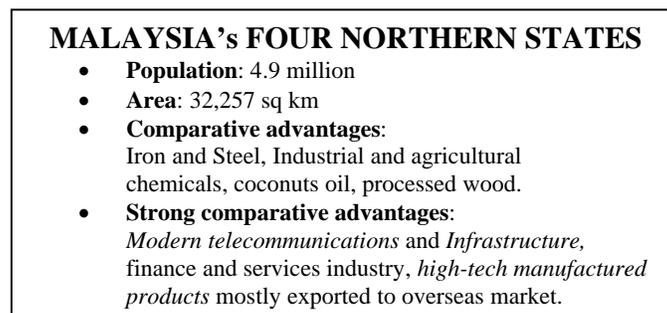


FIGURE 1: STATE PROFILE IN NORTHERN REGION

The growth of Small & Medium Enterprises (SMEs) in the four states has a very encouraging economic growth in northern regions in Malaysia.

#### **Government Plans and Focus in ICT Policy**

Malaysia intensified its commitment towards the Information and Communication Technology (ICT) in the early 1990s with the setting up of the National Information Technology Council (NITC). The NITC is an advisory group chaired by the Prime Minister to drive the use of ICT as a strategic technology for national development.

The government is backing its ICT vision with a serious financial commitment. In the Eighth Malaysia Plan (2001 – 2005), RM5.2 billion (US\$ 1.37 billion) or 5% of the government budget has been allocated for ICT development. This budget includes government computerization, flagship ICT applications and projects to reduce the digital divide.

Malaysia's ICT strategy took on a more focused, balanced and structured approach in 1996 with 2 main programs: The National IT Agenda (NITA) and the Multimedia Super Corridor (MSC).

NITA provides a framework to utilise ICT to transform the entire Malaysian society into an information society, then to a knowledge society and finally to a values-based knowledge society. NITA views ICT development

from three angles – people, infostructure and applications – with the concept that with the relevant skills, infrastructure and tools, people are able to use ICT to develop society.

NITA's socio-economic approach includes the provision of grants to communities and the Small and Medium Enterprises (SME's) that want to implement pilot ICT projects such as E-community. Recognizing the need to involve all Malaysians in the NITA process, NITC launched the Demonstrator Application Grant Scheme (DAGS) in 1998 to fund and develop e-communities by encouraging Malaysians to participate in and utilise the opportunities made available by ICT.

The MSC on the other hand, predominantly focuses on the economic and industry development. It envisions the creation of an oasis for ICT companies to make Malaysia a multimedia hub. The MSC is primarily a top-down, centrally coordinated project designed to act as a catalyst for ICT industries and products by attracting and nurturing hi-tech companies. Besides enacting the first set of Cyber and convergence laws, and establishing the institutional market framework such as the Ministry and Commissions for Energy, Communications and Multimedia and the venture capital industry, MSC also tenders out Flagship projects such as the Smart School, E-Government, Multi-purpose Smart card and Telemedicine.

Under the Multimedia Super Corridor (MSC) plan, seven major flagship applications were identified to create awareness and to spearhead the ICT development within the nation. These flagship applications include; E-Government, E-Procurement, Project Monitoring System, Generic Office Environment, Human Resource Management System  
E-Services, Multi Purpose Smart Card, Smart School, Tele-health, R & D Clusters, E-Business and Technopreneur Development.

Both NITA and MSC are part of a bigger national vision to become an industrialized nation by 2020, with ICT and knowledge as the main drivers of growth. It's comprehensiveness include aggressive HR development, boosting public spending in R&D, and incentives to attract the right FDI's, in an attempt to move from the manufacturing-base to knowledge-base economy.

In Malaysia, the national ICT strategy is very crucial to enhance SMEs growth and Malaysia government has given clear direction in ICT policy to support SMEs development. Generally, all IMT-GT group countries have ICT strategy such us promotion to ICT content and human capacity building in order to create knowledge society and ICT environment (See Table 1).

TABLE 1: MAJOR ITEMS OF ICT STRATEGY OF IMT-GT COUNTRIES TO PROMOTE SMES GROWTH

ICT Strategy	Malaysia	Thailand	Indonesia
1. Private Sector Initiatives	X	X	X
Promotion of software industries	n.a	X	X
Promotion of ICT venture companies	X	n.a	X
2. Development of infrastructure	X	X	X
3. Arrangement of ICT promotion	X	X	X
4. Electronic government	X	X	X
5. Development of Tele- application (Tele-education, Tele-health etc)	X	X	X
6. Human capacity building	X	X	X
7. Promotion of E-commerce	X	X	X
8. Network security and Intellectual Property Rights	X	X	X
9. Promotion ICT content	X	X	X
10. Bridging the digital divide	X	X	X
11. Regional ICT hub	X	X	X
12. Establishment of ICT strategy Head Quarter	n.a	X	X

Note: n.a = not available

Source: Adopted by Juhary A. Zukime M. J., (2003).

### ICT Adoption in the SMEs

In the developed countries, an increasing number of SMEs are adopting ICT in their effort to develop a competitive advantage and maintain their position in the marketplace. A study in the UK found that all small firms with less than 100 employees adopt ICT using at least one PC to support their business (Dahalin and Golder, 1998). Lees and Lees (1987) found that the reasons small firms adopt ICT are to improve operational procedures, to produce information at a lower cost, to make available new management tools for decision making, to facilitate billing and invoicing, to facilitate business growth, to facilitate inventory control, and to be innovative. The benefits derived include better record keeping, timely, accurate, and expanded information, improved customer service, increased productivity, and enhanced management control and decision making. This many benefits may have prompted many SMEs to adopt ICT.

However, studies have also shown that SMEs generally have end-users with low level of computer literacy and received elementary formal education. In addition, SMIs also lacked qualified ICT personnel, no specific policy and planning on ICT adoption, lack of formal IS methodology, lack of end-user participation and minimal technology diffusion throughout the firm (Montazemi, 1987). It is also the intention of this paper to assess the level of ICT adoption of the Malaysian SMEs in terms of the end-users, ICT personnel, education and training, and the types of technology and ICT products used.

### Methodology

The study was based on a field study in the form of a survey research using a cross-sectional approach where a sample of SMIs representing the production and manufacturing firms listed in the Federation of Malaysian Manufacturers (FMM, 2003) were sought. The size of the firms chosen was based on the definition of small and medium industries as suggested by Abdul Aziz Latif et al. (2000) that specify a firm with full-time employees of not exceeding 150. Sampling technique in the form of proportionate random sampling was used taking into account the different sample frame sizes according to the industries (Kerlinger, 1986). A total of 200 firms were selected in which questionnaires were sent and 108 returns were received. Out of this 24 firms have more than 150 employees hence they were discarded from the sample and the remaining 84 firms were deemed usable representing a 42% response.

Questionnaires with self-address stamped envelopes were sent to the selected firms based on the FMM list together with a cover letter describing the aims of the study and instructions on filling the questionnaire. A supporting letter from the Ministry of Science Technology and Environment (MOSTE) was also included to support the study and to encourage better response. The 42% rate of return was considered good as it far exceeded the typical response reported by other studies involving SMIs which was between 10% to 20% (Palvia et al., 1994; Lai, 1994; Raymond and Bergeron, 1992).

Data entry was carried out using SPSS within which a database of the returns was created. Data analysis was then carried out using descriptive statistics on the firms' demography, manpower requirements, Advance Technology and ICT adoption, and training.

## Findings

Table 2 presents the distribution of the firm's demography and background information. Part I of the table shows that almost three-quarter of the sample firms are Malaysian owned with 50% fully Malaysian and 21.4% owned majority by Malaysian. The remaining 28.6% of the sample is foreign owned with less than 50% local equity. In terms of location, half of the sample is located in Penang, and the remaining 28.6% in Kedah and 21.4% in Perak. Penang is an industrial state with high concentration of industries particularly in Prai whereas in Kedah a new industrial area has been developed in Kulim. Together, both these areas formed the majority of the sample firms in this study with 71.5% respondents. In terms of the firms' size, more than 90% of the sample firms employ between 50 to 150 employees. All small firms with less than 50 employees are located in Perak.

TABLE 2: DISTRIBUTION OF THE FIRMS' DEMOGRAPHY AND BACKGROUND INFORMATION

	Frequency	%	Cum. %
I. Ownership			
Fully Malaysian	42	50.0	50.0
Malaysian owned (> 51% local)	18	21.4	71.4
Foreign owned (< 50% local)	24	28.6	100.0
II. Location			
Kedah	30	28.6	28.6
Pulau Pinang	54	50.0	78.6
Perak	24	21.4	100.0
III. Number of Employees			
Less than 50	6	7.1	7.1
50 to 150	78	92.9	100.0

Table 3 shows the background information of the respondents. The instruction has specifically requested the employer or his/her representative to respond to the questionnaire. It is assumed that the respondents of this study are the key people in the firm. Managerial level personnel made up the majority of the respondents with 57.1%. However, in terms of job category, operational level personnel made up the largest group with 42.9%. This was followed by the top level management with 35.7% and middle level management with 21.4%. Overall the distribution of respondents was divided almost equally among the three levels of job category. It was interesting to observe that all the top level management executives owned a university degree with a significant majority (60%) have post graduate degrees. A majority of the middle level management also has a tertiary education and two-third of the low level management have diplomas and first degrees. Only one-third in each of the middle and low level management categories were school leavers. Chinese made up the largest respondents with 64.3%. This is followed by Indians with 21.4% and Malays with 14.3%. A closer look at the data also revealed that all the top management respondents were Chinese.

TABLE 3: BACKGROUND INFORMATION OF THE RESPONDENTS

	Frequency	%	Cum. %
I. Job Category			
CEO/Top Management	30	35.7	35.7
Managerial/Professional	18	21.4	57.1
Clerical/Operational	36	42.9	100.0
II. CEO/Top Management Qualification			
Post Graduate	18	60.0	60.0
First Degree	12	40.0	100.0
Diploma	0	0	100.0
High School (STPM/SPM)	0	0	100.0
III. Middle Level Management Qualification			
Post Graduate	0	0	0
First Degree	12	66.7	66.7
Diploma	0	0	66.7
High School (STPM/SPM)	6	33.3	100.0
IV. Lower Level Management Qualification			
Post Graduate	0	0	0
First Degree	6	16.7	16.7
Diploma	18	50.0	66.7
High School (STPM/SPM)	12	33.3	100.0
V. Race			
Malay	12	14.3	14.3
Chinese	54	64.3	78.6
Indian	18	21.4	100.0

Table 4 shows the manpower requirements of the sample firms categorized according to managerial level, technological skill and IT skill. Manpower requirement at the managerial level showed high percentages of current fulfillment of manpower across the three levels with the lowest level scored the most at 94.5%. This may suggest that the SMEs in the sample currently have almost fulfilled their manpower requirements in terms of filling the job vacancies across all levels of the firm. There is a higher demand for manpower at the higher managerial level both currently and five years down the line. However, greater job demands are expected in the future in all three categories, perhaps due to anticipation of high staff turnover and company expansion due to the recent economic recovery.

TABLE 4: MANPOWER REQUIREMENTS

	% Fulfill Current	% Fulfill Future
I. Managerial Level		
Top Level Management	88.9	72.2
Middle Level Management	88.9	72.2
Lower Level Management	94.5	77.8
II. Technological Skill		
Skilled Worker	88.9	55.6
Semi-skilled Worker	83.3	55.6
Unskilled Worker	88.9	61.2
III. ICT Skill		
Computer Engineer	22.2	33.3
Computer Support Specialist	16.7	33.3
Systems Analyst	27.8	16.7
Database Administrator	27.8	33.3
Desktop Publishing Specialist	11.1	16.7

Data on technological skill suggests requirements for all categories of skilled and unskilled workers are currently almost being fulfilled. However, the future may see an increase in the demand for skilled and unskilled workers as the percentage of manpower requirements for technological skills decreases. This is even worse in the skilled and semi skilled categories which may suggest higher staff turnover among these categories as anticipated by the respondents.

In terms of ICT skill there is an overall shortage of ICT manpower requirements across all categories of IT professionals as shown in Table 4 above. The worse is Desktop Publishing Specialist with

only 11.1% meeting the current manpower requirement. Computer Support Specialist is next with only 16.7% fulfilling the current demand. This is followed by Computer Engineer at 22.2%, Systems Analyst and Database Administration both at 27.8%. Similarly the shortage of IT manpower in the future is anticipated to remain with only slight increase in the percentage. However, the demand for Systems Analyst is expected to increase in the future as the percentage of fulfilling the manpower requirement for this category decreases as suggested by the 16.7% drop from 27.8% as shown in Table 4.

Data on technology adoption also shows an overall low level of automated technology used by the SME firms in the sample (see Table 5) The use of fully automated high-technology products ranges from 5.6% to as high as 22.2% of the respondents. The use of high-technology products at 22.2% includes Computer Aided Design (CAD), Automated Inspection and Testing Equipment (AITE) and Material Requirements Planning (MRP I). This is followed by the use of Numerical Control/ Computer Numerical Control/ Digital Numerical Control (NC/CNC/DNC) machines at 17.6%, Automated Storage and Retrieval System (AS/RS) and Computer Integrated Manufacturing (CIM), both at 16.7%, and robot technology, Automated Material Handling System (AMHS), Just-in-time (JIT) and Manufacturing Resources Planning (MRP II) at 11.1%. Among the lowest usage of fully automated high technology products were Flexible Manufacturing Cells/ Systems (FMC/FMS) at 5.9% and Material working laser at 5.6%.

TABLE 5: USAGE OF ADVANCES TECHNOLOGY PRODUCTS

High-Tech Products	Usage (%)			
	Manual & Semi-Automated	Fully-Automated	Not Used	Plan to Acquire
<b>Stand Alone Technology</b>				
• Engineering & Design Technology				
- CAD				
- CAPP	33.4	22.2	44.4	
• Machine, Fabric & Installation	18.8	6.3	68.8	6.3
- NC/CNC/DNC				
- Robots	5.9	17.6	58.8	
- Material working laser	16.7	11.1	72.2	
	16.7	5.6	77.8	
<b>Intermediate Technology</b>				
• Material Control				
- AS/RS	33.3	16.7	50.0	
- AMHS	38.9	11.1	50.0	
• Inspection & Testing Equipment				
- AITE	38.9	22.2	38.9	
<b>Integrated Technology</b>				
• FMC/FMS				
• CIM	35.2	5.9	58.8	
• MRP I	33.4	16.7	50.0	
• JIT	33.4	22.2	33.3	11.1
• MRP II	55.5	11.1	27.8	5.6
	38.9	11.1	22.2	27.8

Most of the respondents also did not indicate any plan to acquire these high-tech products in the future, with the exception of MRP II, MRP I, Computer Aided Process Planning (CAPP) and Just-in-time. This clearly indicates the use of high technology products among the SMEs is still in its infancy stage. Table 4 shows the usage rate of the high technology products of the participating firms in the sample. It is also interesting to observe that the percentage of high technology products not used was also high across all categories, especially in the Machine, Fabric and Installation category such as Material Working Laser, Robots and NC/CNC/DNC machines; Engineering and Design Technology category such as CAPP; Integrated and Flexible Manufacturing category such as FMC/FMS, CIM, MRP I and MRP 2, and Materials Control category such as AS/RS and AMHS. Even for JIT, the most used high-tech product

according to the survey indicates quite a significant proportion of respondents not using the product with 33.4% of the respondents. Even so, those who use JIT are largely not using a fully automated product with more than half of the respondents indicated having a manual or semi-automated JIT product. This clearly indicates that the use of fully automated high technology products in the SMIs is still very low.

Table 6 shows data on ICT adoption among the sample firms. Based on 100% usage of e-mail it can be deduced that all the SME firms in the sample owned at least one PC. This may suggest that ICT is now pervasive among the SMEs in Malaysia. However the adoption of the other ICT products is still low with varying degree of usage. The most popular is Word Processing with 66.7% of the respondents indicated using the software fully. This is followed by Spreadsheet at 61.1%, Database at 44.4%, and to a lesser extent Accounting at 27.8%, Finance at 22.2%, Scheduling at 16.7%, Sales at 12.5%, Human Resource Management and Material Control at 11.1%, and Project Management at 5.6%. None of the firms however indicated computerizing the Purchasing system fully. Despite having PCs connected to the Internet by virtues of the 100% usage of e-mails, only 27.8% of the firms in the sample have their own websites. The data clearly indicates the current level of ICT adoption among the SME firms is currently still very low despite the many opportunities for increased ICT sophistication.

TABLE 6: ICT ADOPTION

IT Products/ Application	Usage (%)			
	Manual & Semi-Automated	Fully-Automated	Not Used	Plan to Acquire
E-Mail		100.0		
Word Processing	33.3	66.7		
Spreadsheet	38.9	61.1		
Database	56.6	44.4		
Accounting	72.3	27.8		
WWW (website)		27.8		72.2
Finance	77.8	22.2		
Scheduling	83.3	16.7		
Sales	87.6	12.5		
HR Management	61.1	11.1	27.8	
Material Control	89.9	11.1		
Project Management	61.1	5.6	33.3	
Purchasing	100.0	0.0		

An important characteristic of a K-Worker is the capability of the employees in adopting ICT to perform their duties and responsibilities. Firms are also obligated to provide the necessary training in order to increase their employees' ICT competency. Table 7 shows the distribution of the K-Worker ICT skill, ICT Training needs and ICT Budget allocation on the sample SMEs.

TABLE 7: ACQUISITION OF ICT SKILL, ICT TRAINING NEEDS AND ICT BUDGET ALLOCATION

	% Acquired	% Not Acquired	% Plan to Acquire
Employees with ICT skill (K-Worker)	33.3	66.7	
ICT Training needs	50.0	27.8	22.2
ICT Budget Allocation	77.8	22.2	

Table 7 above shows that only one-third (33.3%) of the sample SMEs have k-workers, that is employees with the necessary ICT skills and using the IT products in carrying out their job functions. Despite the low percentage, half of the sample have acquired ICT training. This suggests that not all who went for ICT training would eventually end up acquiring the ICT skill. In terms of budget allocation for ICT, majority of the firms (77.8%) did set aside budgets for ICT expenditure. Though this was encouraging, the data suggests the actual impact of IT to the employees was not fully realized even though firms were supportive in terms of providing the financial and training support in order to promote ICT.

## Discussion and Conclusion

The development of human resource is to ensure contribution to sustainable productivity for continued economic growth. In line with that, this study provides an assessment of the development of human resource based on the application of information technology in the industrial sector, specifically the small-

medium enterprises in Malaysia. Awareness by the industrial sector in adopting ICT and other advanced technology is important in order to generate higher value-added economy.

This study has shown a large vacuum exists for well-educated skilled manpower in the areas of IT and other high technology in the industrial sector particularly the SMEs. This may not be favorable in today's era of k-economy where the need for progress in high technology development and IT is in high demand in order to facilitate globalization. The findings reveal a low level of IT manpower and a low technology adoption among the SMEs. The requirements for skilled human resource in ICT and other technologies are still not adequate to meet the demands of the industry. One distinguishing feature that can be highlighted based on the facts presented in this study is the accessibility of e-mails by all the respondents in the sample. This seems to be the likely trend that is currently prevailing all over the world. These findings also indicate that workers are familiar with computers and can use computers to access their e-mails. Motivating them further to use other tools and technology within similar computing environment should not be a difficult task compared to other past employees who had developed computer phobia.

In addition, it is suggested that the relevant training programs should be given to the relevant employees and firms should also be encouraged to support re-training to address the issues of trainees not being adequately trained. In addition, firms should consider introducing incentives to encourage more ICT literate employees and likewise, the government may consider giving subsidy in terms of tax incentives, etc. on training programs to encourage SMEs to invest in training.

With the current capability of ICT, further research and development works should be carried out to determine the best usage of the technology to help facilitate training, either through computer-assisted learning and instruction, e-learning and/or using virtual reality and other modeling and prototype development. An easy to use and user friendly software as a training aid will allow in getting more people into ICT, hence producing more knowledge workers capable of utilizing the right tools and technology to carry out their work.

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# Strategies for Effective Management of Supply Relationship by Ancillary Industries in SME Sector

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## Abstract

Developing a healthy relationship between the suppliers and their client companies is critical to effective functioning of the firms. An interesting relationship emerges when the supplier is a SME firm but, a single supplier and the client is a large corporation, but a single buyer. Nevertheless, the SME supplier needs to manage the relationship with the client company and adopt appropriate strategies for maintaining such relationship. The usual irritants in maintaining the relationship are the modalities of price determination, frequency of orders, quality, payment terms and exchange of information. This paper analyzes the strategies adopted by the SME suppliers with respect to these factors in light of prior commitment of the client company.

## Introduction

Developing healthy relationship with the suppliers is critical to the effective functioning of the firms. Over the past few years, many large firms substantially reduced the number of their suppliers. This trend obviously means that there are certain suppliers who are exclusive to the client company. Under such circumstances, an interesting relationship emerges, when the supplier happens to be a small or medium enterprise, and the client company is a large corporation. The SME supplier, being the only supplier or one among two or three suppliers, operates from a monopoly position. At the same time, the client company is the only buyer or one among two or three clients of the SME. Hence it is in a position of monopoly buyer. In such a situation, neither the supplier, nor the buyer is able to take advantage of their monopoly position. Even though the supplier operates as a monopoly, it remains at the mercy of the client company because the client company is the only buyer. At the same time, the client company is averse to leverage its monopoly buying position because of the fact that the supplier is the only supplier and it is not easy, if not impossible, to switch over or develop a new supplier in the short run. The relationship becomes more interesting when the supplier happens to be a small or medium company and the client happens to be a large corporation. In such a situation, the SME supplier needs to manage the relationship with the client company and at the same time derive the maximum from the relationship. There are certain principles enunciated to maintain the relationships between the suppliers and the client companies. They should attempt to integrate their activities in their attempts to improve quality [4]. It was also suggested that the suppliers and the client companies should be motivated to initiate opportunities for product and process innovations. Both the SME supplier and the client company need to maintain a symbiotic relationship, even though there are a number of points where the interests of the two conflict with each other. "While customers are seeking more collaborative relations through supply chain management, the supplier behavior may only be instrumental compliance rather than cultural change premised on deep-seated values. The SME supplier may only be responding to a relationship of unequal power and the reality of supply chain management may be very different from the theoretical concepts of integration and collaboration" [1]. Developing a healthy relationship with the suppliers is critical to the effective functioning of the firms [3]. Over the past few years, many large firms substantially reduced the number of their suppliers. This trend obviously means that there are certain suppliers who are exclusive to the client company. The primary reason is that the corporations are becoming leaner, and the procurement function is becoming more centralized. As outsourcing of operations is becoming more and more common, more opportunities to partner with suppliers are arising. Maintaining this partnership and managing the relationship is becoming increasingly important for several reasons [3].

Various strategies are adapted by the SMEs to manage the supply relationship. This study identifies the factors influencing the relationship and the strategies adapted by the SMEs in managing the relationship. Initially,

in-depth interviews on various aspects of relationship management were carried out with a limited number of SME suppliers. The information gained out of the interviews is used to identify various parameters that govern the relationship between the SME supplier and the client company. Based on the results of this exploratory study, a detailed questionnaire was prepared. Data was collected from a larger sample of SME suppliers using the questionnaire. Data was collected from the SME firms spread over three states namely, Tamilnadu, Karnataka and Pondicherry. Only the firms, which supply to one or at most two client companies, were included in the sample. The exploratory study has identified the following as important factors in managing the relationship between the supplier and the client [2]:

- Initiative to start the SME
- Modality of price determination
- Regularity of orders
- Quality
- Payment terms and
- Business intelligence

The data obtained from the larger sample in the second phase of this study is analyzed to highlight the impact of the above factors in the supply relationship.

### **Profile of the Sample Firms**

As mentioned earlier, data was collected from a total of 110 firms spread over 3 states. These sample firms were distributed as follows: 59 from Hosur in Tamilnadu, 40 from Pondicherry and 11 from Bangalore in Karnataka. The average age of the firms was about 14 years. Forty percent of the sample firms were less than 10 years old and about 20 percent were between 10 and 15 years old, where as another 28 percent were more than 20 years old. In other words, the sample firms are well established and had been doing business for considerable period of time.

Of the 110 firms in the sample, 42 are partnership firms, 27 are privately owned and 39 have personal ownership in an individual capacity. One firm is incorporated as a private limited company and the other is registered as an association involving physically challenged persons. About 70 percent of the firms operate a single unit and another 21 percent operate two units where as the remaining 9 percent operate 3 to 6 units for production. Similarly, 30 percent of the sample firms work a single shift where as another 44 percent work double shift with the remaining working 3 shifts. The average number of employees is about 31 and more than 60 percent of the production is supplied to a single client. In that sense, these firms could be clearly classified as ancillary units.

### **Analysis**

Many of the entrepreneurs have started the firms on their own Initiative and there are 80 such firms. Few entrepreneurs have been encouraged by the client company to start the unit and 18 fall in this category. Another 11 entrepreneurs had been working in some other company as an employee and later became an entrepreneur by starting the unit. Among the 110 entrepreneurs in the sample, 38 had managed to secure a commitment from the client company before starting the unit. These firms are classified as Category I. Another 68 firms started without any prior commitment, but managed to secure the relationship with the client after starting the unit. These firms are classified as Category II firms. The remaining 4 firms had started with a commitment from a particular client, but shifted to the present client. These firms are classified as Category II firms. Since there are very few firms from Category III in the sample, most of the analysis in this paper is with respect to the Category I and Category II firms.

#### **Technology for Production**

Only 35 percent of the firms had a commitment from the client before starting the unit where as the remaining 65 percent had received the commitment after starting the unit. The commitment from the client company plays a major role in the technology used for production. Table 1 presents the distribution of the sample firms, in percentage terms, with respect to various aspects of technology used. It can be seen from Table 1 that majority of those who have started on their own initiative had obtained the commitment of the client where as almost 95 percent

of those who were encouraged by the client had the commitment before starting the unit. In other words, the client's commitment is completely associated with the encouragement. Similarly, prior commitment of the client led to obtaining the technology from the client as demonstrated by a majority of the firms falling in this category. On the other hand, those who had obtained the commitment later had obtained the technology either on their own or from a common source. Similar linkages are observed with respect to up-gradation of technology as well as any specific technology required by the client. When the firm shifted its supply from some other client to the present client, the technology is predominantly obtained from a source recommended by the client. This behavior is not very uncommon in the sense that the client company's prior commitment is usually tied to the technology to be used by the supplier. Similar is the situation with respect to up-gradation of technology.

TABLE 1: DISTRIBUTION OF THE SAMPLE FIRMS BASED ON TECHNOLOGY RELATED ISSUES

Characteristic	Detail	Commitment of client			Total
		Before starting	After starting	Shifted to present client	
How did you start?	Own Initiative	21.25	75.00	3.75	100.00
	Encouraged by Client	94.44	5.56		100.00
	Working for some other Company	36.36	54.55	9.09	100.00
Technology for manufacture	Provided by the client	58.82	41.18		100.00
	Obtained by the firm	25.37	70.15	4.48	100.00
	Common source of technology	31.82	63.64	4.55	100.00
Up gradation of Technology	Provided by the client	63.64	31.82	4.55	100.00
	By the firm	27.06	69.41	3.53	100.00
	By one recommended by client	50.00	50.00		100.00
When Client needed specific technology	Provided by the client	46.94	51.02	2.04	100.00
	By the firm	25.00	71.67	3.33	100.00
	By one recommended by client			100.00	100.00

### Order Placement and Pricing

The prior commitment from the client plays a major role in the distribution of orders to a particular ancillary or across many ancillaries. As shown in Table 2, 35 percent of the Category I firms had the entire order placed on them only. Even when it is distributed across different firms, it is mainly to provide enough capacity utilization to all the ancillary firms and the distribution is generally based on the capacities. On the other hand, the clients seem to place the orders based on their whims with respect to the Category II firms. There are equal number of Category II firms where the entire order is placed on them. This could possibly be because these are the only firms supplying the components to the client. On the other hand, the pricing strategies of the client companies seem to be very similar across the two categories of firms. About 35 to 40 percent of the sample firms reported that client companies resort to collaborative pricing where the client company and the ancillary supplier together decide on the price. Less than 20 percent of the sample firms indicated that the client companies resort to tendering process through competitive bidding and then decide on the supplier based on the lowest quotation. The practice of forcing the lowest bid (quotation) on other suppliers do not appear to be very common. The practice that appears to be more common is to invite quotations through competitive bidding and then negotiate the appropriate price with individual firms.

TABLE 2: ORDER PLACEMENT AND PRICING PRACTICES

Characteristic	Detail	Commitment of client			Total
		Before starting	After starting	Shifted to present client	
How are orders given?	Entire order to us	35.14	29.41	25.00	31.19
	Split between us and others to provide work for all	27.03	13.24	25.00	18.35
	Distributed based on capacities	21.62	26.47	50.00	25.69
	Based on clients whims	16.22	30.88		24.77
Total		100.00	100.00	100.00	100.00
Price is based on	Competitive bidding	18.42	17.91		17.43
	Bidding followed by negotiation	39.47	40.30	25.00	39.45
	Lowest bid forced on us		7.46	25.00	5.50
	Collaborative pricing	42.11	34.33	50.00	37.61
Total		100.00	100.00	100.00	100.00

Costing exercise plays an important role in determining the price. If the costing information is shared between the supplier firm and the client company, the processes of negotiation as well as the collaborative pricing strategies become easier. Interestingly, little more than two thirds of the sample firms carry out a costing exercise. But, only one-third of such firms share the costing information with the client. On the other hand, the remaining two-thirds of such firms use the costing exercise for their own information. In about 10 percent of the cases, the client gets involved in the costing exercise. More than 75 percent of the firms use the costing information for determining the prices or bid levels as well as for negotiations with the client company.

As shown in Table 3, many of the clients do not share their costing information with the supplier firms. This percentage is much higher with respect to the Category II firms. Also, the clients provide indirect indication of the upper and lower limits in terms of their costing so that the supplier firms can take it into account while determining their own price levels. In other words, there appear to be more exchange of information between the client and supplier firms with respect to the Category I firms. There does not appear to be any difference between the Category I and Category II firms with respect to the payment. Almost 75 percent of these firms appear to receive the payment within the specified period. Only about 8 percent of the firms had to wait for payment until the client company itself sells its products. On the whole, the receipt of payments does not appear to be a major irritant between the supplier firms and their clients.

TABLE 3: COSTING INFORMATION AND PAYMENTS

Characteristic	Detail	Commitment of client			Total
		Before starting	After starting	Shifted to present client	
In your relationship with the client	Client does not share costing information with us	38.71	66.04	75.00	56.82
	They are open about their costing and margins	38.71	30.19	25.00	32.95
	Client tells us the upper and lower limits	22.58	3.77		10.23
Total		100.00	100.00	100.00	100.00
When do you receive payment	Within the period specified	71.05	76.12	75.00	74.31
	After prolonged follow-up	18.42	16.42	25.00	17.43
	After the client sells his product	10.53	7.46		8.26
Total		100.00	100.00	100.00	100.00

### Diversification and Expansion

Expansion and diversification of operations is an indicator of the success of the supplier firms. More than 75 percent of the sample firms have expanded or diversified their operations. There is a slight variation in the percentage of firms that have either expanded or diversified in the two categories. About 82 percent of Category I firms have expanded or diversified where as the corresponding percentage is about 72 percent in the case of Category II firms. Table 4 presents the details with respect to expansion of the sample firms.

The prior commitment of the client has played a major role in the expansion decisions of the firms. Majority (76 percent) of the Category II firms have expanded to supply to other clients where as almost 50 percent of the Category I clients expanded to supply to the same client. The increased level of operations of the client company provided the thrust for expansion for 67 percent of the Category I firms where as the corresponding percentage for Category II firms is 53 percent. One of the differentiating factors between the Category I and II firms is the expansion initiative owing to other clients. Almost one third of the Category II firms expanded because of other clients where as only one-fourth of Category I firms fall in this segment. Interestingly, two thirds of both categories of the firms are able to supply to other clients after expansion. In other words, even though the expansion initiatives are due to the original client to start with, the firms that have expanded have started supplying to other clients, there by reducing their dependency on a single client. This is true even with the firms, which had prior commitment from the client. Needless to say, these firms are supplying more to the original client.

TABLE 4: DETAILS WITH RESPECT TO EXPANSION

Characteristic	Detail	Commitment of client			Total
		Before starting	After starting	Shifted to present client	
Reasons for expansion	to supply to the same client	48.39	20.00	50.00	30.59
	to supply to other clients	45.16	76.00	50.00	64.71
	to get economies of scale	3.23	4.00		3.53
	to enter the market directly	3.23			1.18
Total		100.00	100.00	100.00	100.00
Initiative for expansion is	client has increased his level of operations	67.74	53.06	50.00	58.33
	because supply from others have come down	6.45	10.20		8.33
	other clients are interested	25.81	36.73	50.00	33.33
Total		100.00	100.00	100.00	100.00
Because of expansion	our costs have come down	12.90	8.16	25.00	10.71
	we are able to supply to other clients	64.52	69.39	50.00	66.67
	we are able to supply more to the client	19.35	10.20		13.10
	Our quality has improved	3.23	12.24	25.00	9.52
Total		100.00	100.00	100.00	100.00

Almost all the firms that have diversified had done so within related products. Less than five percent have diversified into un-related products. The details of the diversification are presented in Table 5.

A large majority of the sample firms have diversified to provide forward linkages. 82 percent of Category II firms had gone in for diversification with forward linkages where as this percentage is only 62.5 percent for the Category I firms. One of the interesting aspects that arise among the sample firms is that a larger percentage of Category I firms had gone into diversification to supply to some other client as compared to the Category II firms. In other words, even though these firms have prior commitment from the clients, the diversification and expansion strategies had been to reduce the dependence on a single client. Similarly, the percentage of Category II firms that had gone into diversification in order to enter the market directly, i.e., without depending on any single client is higher as compared to that of the Category I firms. It should be remembered that these firms were started without

any prior commitment from the client and consequently, the tendency to increase the client base and there by reducing the dependence is much higher. Diversification does not appear to have a major impact on costs in both the categories of the firms. On the other hand, both categories felt that their quality had improved because of diversification. A higher percentage of Category I firms felt that they are able to negotiate better because of diversification, as compared to the Category II firms.

TABLE 5: DETAILS OF DIVERSIFICATION

Characteristic	Detail	Commitment of client			Total
		Before starting	After starting	Shifted to present client	
Diversification provided	Forward linkages	62.50	82.14	50.00	73.91
	Backward linkages	12.50		50.00	6.52
	Both	25.00	7.14		13.04
	Neither		10.71		6.52
Total		100.00	100.00	100.00	100.00
Diversification is mainly to	Supply to the same client	25.00	20.69	50.00	21.28
	Supply to some other client	68.75	58.63	50.00	63.83
	To market directly	6.25	20.68		14.89
Total		100.00	100.00	100.00	100.00
Diversification has actually	Reduced the average cost of production	31.25	30.77	50.00	31.82
	Increase the average cost of production	25.00	15.38		18.18
	no impact on the cost	43.75	53.85	50.00	50.00
Total		100.00	100.00	100.00	100.00
Because of diversification	More competitive on pricing	25.00	7.14		13.04
	Quality has improved	43.75	57.14	50.00	52.17
	Negotiate better with the client	31.25	35.71	50.00	34.78
Total		100.00	100.00	100.00	100.00

### Quality Initiatives

Very often, the quality initiatives of the supplier firms are dictated by the client companies. More than 50 percent of the Category I firms have ISO 9000 or similar quality initiatives. The corresponding percentage for the Category II firms is only 40 percent. The higher percentage of Category I firms could be because of the insistence by the client companies. Similarly, the supply of raw material is one factor in determining the quality of the final product. Most of the sample firms obtain the raw material from their own supplier. One-fourth of the Category I firms obtain their raw material from a supplier identified by the client and the corresponding figure for the Category II firms is less than 10 percent. About half of the sample firms have their own in-house testing facilities for the raw material. On the other hand, almost 25 percent of the Category II firms do not bother to get the raw material tested. There appears to be a significant difference between the two categories of the firms when it comes to testing the final product. While large number of Category I firms (62 percent) test the final product before dispatching, only 44 percent of Category II firms do such testing. On the other hand, about 40 percent of the Category II firms reported that the client tests the entire product before accepting, where as only 25 percent of Category I firms reported such testing.

Providing required training to the employees is an important aspect in ensuring quality. Large number of the Category I firms in the sample provide training at their own premises. Only 13 percent of the Category I firms do not provide any training at all to their employees where as 21 percent of Category II firms fall in this group. Even though many firms in the sample do provide training, there is no specific schedule for such training.

Sharing of information is an important aspect the relationship between the supplier firms and the client companies. Table 6 provides the details of sharing of information on various aspects. Almost two-thirds of the firms, which have prior commitment from the client, routinely share their production plans with the client companies. On the other hand, only 43 percent of the Category II firms share their production plans with the client companies. Similar is the situation with the client sharing their market information with the supplier firms. Only a few clients share their costing information with the supplier firms. Even within those few, the proportion of Category II firms reporting such information is much lower than that of the Category I firms. Similarly, very few clients of Category I firms change the requirements after placing the order as compared to those of the Category II firms. There is not much difference between the two categories of firms when it comes to sharing of future plans as well as giving the annual requirements in advance to the supplier firms.

TABLE 6: DETAILS OF INFORMATION SHARING BETWEEN THE SUPPLIER FIRMS AND CLIENT COMPANIES

Characteristic	Detail	Commitment of client			Total
		Before starting	After starting	Shifted to present client	
Share production plan with client?	No	36.84	42.65		39.09
	Yes	63.16	57.35	100.00	60.91
Total		100.00	100.00	100.00	100.00
Client gives info on annual requirement	No	36.84	39.71	50.00	39.09
	Yes	63.16	60.29	50.00	60.91
Total		100.00	100.00	100.00	100.00
Client shares market information with you	No	55.26	63.24	75.00	60.91
	Yes	44.74	36.76	25.00	39.09
Total		100.00	100.00	100.00	100.00
Client shares costing and pricing policies	No	65.79	80.88	100.00	76.36
	Yes	34.21	19.12		23.64
Total		100.00	100.00	100.00	100.00
Client share his future plans	No	50.00	50.00	75.00	50.91
	Yes	50.00	50.00	25.00	49.09
Total		100.00	100.00	100.00	100.00
Client changes requirements after placing order	No	68.42	55.88	25.00	59.09
	Yes	31.58	44.12	75.00	40.91
Total		100.00	100.00	100.00	100.00

## Conclusion

The data collected from 110 SME supplier firms indicates that those firms, which started with a prior commitment of the client companies, manage to maintain a better and positive relationship with the client companies. At the same time, those which started on their own but received the commitment after starting the unit have to resort to different set of strategies to maintain the relationship. In addition, these firms tend to expand or diversify their activities in order to supply to other clients and thereby reducing their dependence on a single client. These companies use their costing information for obtaining better prices from the client companies. Even though costing is done by majority of the supplier firms, the sharing of costing information is not very common. Also many firms without prior commitments from the clients make sure that the product supplied by them is of high quality by testing the entire production before dispatch. Ultimately the prior commitment or lack of it by the client companies appear to have an impact on the strategies adopted the supplier firms in managing their relationships with the client companies.

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## End Notes

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# **The Impact of Venture Capital on the Italian SMEs Development In the Search for a Comprehensive Model**

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## **Abstract**

**Despite the strong concentration process in the Italian banking system in the last decade, new areas of support for local SMEs can be explored beginning with two Italian features: the presence of small and medium banks and of new investors in venture capital. An efficient network of local banks, closer to SMEs needs, requires new medium-long range financial forms for innovative firms, especially in high-tech, such as venture capital and private equity. In this paper the financial needs of the Italian SMEs are analysed and, in the end, a theoretical model is proposed in order to measure the impact of venture capital.**

## **Introduction**

Market globalisation and the creation of the EU present new challenges that need to be faced successfully in order not to be excluded from the competition. In this context Italian SMEs are dynamic in terms of exports and management approach but show some problems from the financial point of view. Despite the strong concentration process in the Italian banking system in the last decade, new areas of support for local SMEs can be explored beginning with two Italian features: the presence of small and medium banks and of new investors in venture capital.

Local banks must act on the weaknesses, such as small size, deep territorial rooting and the focus on local industries, turning them into strengths, such as higher flexibility, new technologies and outsourcing, in order to cover niche areas, not covered by the big banks.

Italian SMEs have always faced a poorly distributed financial system, with strong informational asymmetries and lack of intermediaries able to bring them closer to the new funding channels. An efficient network of local banks, closer to SMEs needs, requires new medium-long range financial forms for innovative firms, especially in high-tech, such as venture capital and private equity.

In this paper the financial needs of the Italian SMEs are analysed (par. 2) in terms of capital debt and capital risk, especially regarding the innovative finance forms of venture capital and private equity (par. 3, 4 and 5). Moreover, the role of small banks is observed in relation to their link to the local territory and its economic development. Finally, this paper also investigates the opportunity to develop an organisational venture capital model that better fits the situation in Italy, in the way it can foster the local economy and act as a means of place marketing in attracting further investments (par. 6).

## **Financing SMEs growth strategies**

Globalisation has challenged the competitiveness formula of firms and, sometimes, the surviving of small firms, especially when economies of scale and technology are considered the main competitive factors. The internationalisation process pushes SMEs to extend their strategic approach towards foreign markets, shifting from simple exportation (namely the commercial dimension of internationalisation) to foreign expansion through agreements and partnerships without risk capital contribution, or FDI in joint ventures or subsidiaries.

This process is influenced by external factors, such as global communication and transport infrastructures, enlargement of financial markets, information & communication technologies to reduce transaction costs, space and time limits, and market liberalisation, which have forced SMEs to change perspective and seek new growth tools.

As globalisation enlarges the markets, new banking systems empowered by IT, are lowering the global market entry barriers. This allows SMEs not only not to be excluded from global competition but also to play a new proactive role in it. In conclusion, technology, together with finance, switches the management approach from local to global (Audretsch, 2003).

Finance proves to be the potential constraint for SMEs expansion (Ang, 1992; Avery, Bostic & Samolyk, 1998). In fact in lacking transparent disclosure, SMEs are less able to send credible signals to venture capitalists, banks, or trade creditors; that is to say limited access to external funds due to informational asymmetries. Consequently, the difficulty in gaining external capital hampers SMEs' accumulation of revenue-generating assets and potential growth (Storey, 1994; Deakins, 1996). The financial source typologies follow the SMEs lifecycle, since most SMEs rely on internal sources of funds in their early years of operation (Ou & Haynes, 2003); as they grow in size and age, they ought to have better access to external sources of funds. The financial growth cycle that results is influenced by firm size, industry type, owner age, and organisational form.

Given that most of Italian production is carried out by SMEs which represent the biggest share of national export, their role in the whole economy is obvious. However, it should be noted, that Italian SMEs are basic exporters, in the sense that to serve foreign markets they depend on buyers, export companies and foreign importers, thus the commercial and the international marketing organisation is one of the main weaknesses of the Italian system. Since globalisation involves production qualification throughout the whole process and customised relation with the segment to be served, a fully structured, international-oriented organisation is necessary, that allows easy access to markets and, most of all, to the information necessary to innovate (Lanzara & Gatti, 1997; Gurrieri et al., forthcoming).

Therefore, Italian SMEs choose to position their unique outputs in a very definite segment, being rule maker/breaker more than rule taker in the international arena (Hamel & Prahalad, 1996). Competition is played on competences, avoiding the dimension factor in the competitiveness formula. The SMEs niche growth model requires the creation of networks among firms, banks and institutions at a local, national and global level.

In the international competition Italy has to face the European competitors and NICs, whose dynamism underlines lagging behind of Italy in taking the opportunities derived from new international markets. In fact, Italy shows a strong performance as an exporter rather than as a foreign investor. Above all, SMEs have a strong orientation to export and competitive assets based on industrial districts and family capitalism, but the industry-based competitiveness, inherited from the past, is a limit to the economy's globalisation negatively impacting the whole country-system.

The high information costs, the high risk of sunk costs in installing foreign settlement, the lack of human and financial resources to manage complex situations and transnational organisations, are factors that contrast a firm's international behaviour and cause vicious circles, hampering global entrepreneurship and collection of information on international markets.

The point to stress is that (Mariotti & Piscitello, 1999, p. 17):

- SMEs can gain growth opportunities only by developing their distinctive resources and competences (Prahalad & Hamel, 1996), activating a complementary process to the growth of at home activities;
- SMEs are forced to delocalise their activities abroad because of different comparative advantage (e.g. labour costs, commodities, raw materials), insufficient infrastructures and other externalities.

Research (Mutinelli & Piscitello, 1997; Mariotti & Piscitello, 1995; Cominotti, Mariotti & Mutinelli, 1999) has shown that the capacity to bear high information costs is a function of firm dimension; moreover, they can be reduced by territorial externalities through partnerships with domestic operators. It has also been proven that industry characteristics and geographical destination play a significant role on SMEs concentration process.

The Italian model of "investing" abroad results from a poor tendency and capacity to set up abroad, either through partnerships and agreements or through FDIs. Contrary to the classic internationalisation model (Caves, 1982; Penrose, 1959), international integration and new competitive advantages are the key concepts on which Italian success is based. However, the firms approach tries to balance the efficiency and costs of resources with the growth strategies in new markets, such as the enlarged European Union and the NICs. In this scenario SMEs

succeed in boosting the national system, developing an international culture in managers and entrepreneurs (Gurrieri et al., forthcoming), and stressing the importance of investing abroad to gain competitive advantages.

The complex exchange process of firms— which also involves FDI, commercial & trade agreements, licensing, know-how transfers – [1], requires an integrated supporting strategy that coordinates all the players involved and all the different financial tools (i.e. export credit, innovative finance, project finance, corporate finance, local bank financing, equity finance, and venture capital).

As for the data on Italy's international performance (ICE, 2004), almost all the SMEs are seeking new markets, mostly to spread the costs of R&D, design and production on many markets in order to survive; they try to combine new market opportunities with low production costs. Unfortunately, this is an occasional activity: it is not based on an accurate analysis of the opportunities and of the best production combinations.

So far the traditional model for entering the international markets, namely export, grants SMEs such flexibility to take the various opportunities, replacing them with others once exhausted. On the other hand the process of structuring the internationalisation model is obvious. It is important to have more stable structures, to invest in new competences and new international paths; that is why the whole value chain is involved and the banking system plays a significant role in fostering the natural flow of value.

To confront the strategic deficit, it is necessary to reduce the gap between a firm's needs and the offer of services supporting internationalisation, requiring information collection and supply, product and corporate promotion on foreign markets, assistance and consultancy, and training. Therefore an integrated business system should be created in which all the players collaborate to gain and distribute value.

In Italy the banking system is involved in a re-engineering process in organisation and management oriented towards a network of multinational alliances. However it is far from such standards of expertise, culture and organisation to strategically support its customers in the global competition. In fact, Italian SMEs face great difficulties in finding financial resources and very often have been cut off from the new financial circuits because, on one hand, of their weak structure and, on the other, of the complex national banking system.

However, the competitive international environment draws an unfavourable scenario for SMEs, due to their constant undercapitalisation, the lack of venture capital and the high level of borrowing.

Even though the concentration process that occurred in the Italian financial system in the last years, the availability of banking services increased due to a substantial rise in the number of branches which has risen from 16.500 to 29.200 (+76%) [2]. Acquisitions, rather than mergers, do not cause the disappearance of the acquired bank; so even though the number of banks does not decrease, the acquired local bank has in fact disappeared having become part of the distribution network of the bigger group.

Despite this local banks can develop strong relation with local firms due to their territorial rooting and long-running business relations, that boost the capacity to build personalised relationships with the customers through a generally motivated staff, a fast decision-making process, and a good knowledge of production and of individual operators.

Nevertheless these strengths are not sufficient to ensure, by themselves, the long-term success of local banks' support to SMEs. However local banks, acting on the opportunities represented by technology, globalisation and outsourcing, can turn the traditional weaknesses, such as small size, territorial rooting and focus on local industries, into new success factors, namely the ability to manage environmental complexity together with SMEs higher flexibility.

In particular investments in venture capital also help the industrial system development by selecting companies with a high growth rate, giving them the necessary tools for development. This can help in strategically managing the life cycle, especially in the most delicate phases (start up and development), in order to develop new products and new technologies, to expand liquid assets, to fund acquisitions or to strengthen the financial structure.

The SMEs can benefit from these new types of financing not only for the higher availability of financial sources, but also in terms of executive support to management and of reduction in informational asymmetries. However, since the main dimensional advantages for SMEs are given by independence and control, given that utility for an SME includes issues concerned with personal autonomy, lifestyle, family and the style of business, for a large proportion of SMEs the loss of managerial control and the consequent threat to personal autonomy leads to an aversion for equity finance, while very few SMEs satisfy requirements for entry into the venture capital market

(Mason and Harrison, 1999). Unfortunately, bank supplied finance is the main form of external provision within the small business sector.

## **Innovative Forms of Financing: Venture Capital Investment**

SMEs financial needs can be satisfied by new forms of financing, different from loan finance, such as venture capital investment from financial intermediaries or specialised players (European Communities, 2001). Venture capital investment is a branch of private equity activity and consists in financial resources provided by professionals who invest, alongside management, in young, non quoted, rapidly growing and innovative enterprises, with risk capital or near-equity instruments, such as mezzanine finance or subordinated loan finance. These companies have the potential to develop into significant economic contributors (Zara, 2003a). [3]

Therefore, since it is possible to segment the venture capital market on the basis of different stages of target enterprise life cycle, or on the basis of its specific needs, there can be different types such as “seed financing” and “start-up financing”, “early stage financing”, “expansion financing” or “development capital”, “replacement capital”, “buy-out operations” (“management buy-out and buy-in”, “leverage buy-out”), “turnaround financing” and “bridge financing” (AIFI & PricewaterhouseCoopers, 2000; Bottazzi & Da Rin, 2002).

Common factors to all these segments are the acquisition of temporary participations in enterprises with a medium-long term perspective and the aim to support their development, obtaining a capital gain when the participation is sold. Another typical characteristic is that in venture capital financing the backer gives not only financial support, but also an intangible contribution such as know-how in management and strategy development.

Far from being simply passive financiers, venture capital investors foster growth in companies through their involvement in the management, strategic marketing and planning. They are often entrepreneurs first, and financiers second. So venture capitalists have a proactive role in guiding, leading and growing the companies they have invested in. In addition, they can create synergies among the various companies they invest in, by attracting mergers or acquisitions providing liquidity and exit for the company’s founders.

The venture capitalist shows his particular characteristics depending on the kind of operation, on enterprise needs and in the stage of the enterprise’s life cycle. Specialised players operate in the cases of high tech firms, or strongly R&D ones, developing SMEs, and property restructuring. Instead banks are involved either directly, by buying a participation in a specialised closed-end fund, or indirectly, informing specialised players, receiving a fee for the service. In the case of official listing, i.e. temporary buying of low risk equity participation, the bank can give support for the organization of the emission and placement phases (Zara, 2003b).

Therefore, in the Italian financial system, either Italian or foreign financial or non financial intermediary firms can be considered venture capital operators. In majority stakes acquisition, the most frequent backers are industrial companies and foreign closed-end funds that have management skills and technological know-how. As regards minority stakes acquisitions, the backers are generally financial intermediaries and Italian closed-end funds that are aimed at financial return of the investment, not directly interested in management and oriented to drive the firm towards direct financing forms (e.g. official listing).

The Italian law on banking has imposed precise and different limits for banks on the acquisition of equity participations in non-financial enterprises [4]. Because of these, it is simpler for banks to operate in the venture capital sector, through the promotion of closed-end funds or through business relationships with them, rather than to proceed to an organizational restructuring for direct operation in it.

In addition, also specialised players can operate in this sector: closed-end funds, business angels and “enterprise incubators” [5]. Closed-end funds are nowadays considered the most important venture capital player and are the second channel for the banks to participate in this sector, after the direct shares acquisition in enterprises. In fact, the majority of legal Italian closed-end funds are managed by a firm belonging to a banking group. Since the main characteristic of the closed-end fund is the right to be refunded only at predetermined expiry dates, the fund manager can rely on a defined and stable liability, which fits well with venture capital investment. Business angels are wealthy individuals who invest in start-ups. Sometimes groups of business angels provide legal and organizational support to the target firm. Lastly, the “enterprise incubators” are private or public operators who

contribute to the support of the early stages of the enterprise, offering management assistance, rooms, offices and various services. In Italy they are mainly Polytechnics.

In many operations, venture capital financing is subdivided in several stages which are linked to the firm achievement of defined targets or “milestones” (Szego, 2002). This technique, known as stage financing, is one of the most effective means that venture capitalists can use to reduce the uncertainty of business success. Stage financing repartition reduces exposure of the venture capitalist to the total risk of the operation, as the backer can obtain the option of renouncing the project at every defined step and also as every new step of financing is conditional on the production of specific information about the business trend. In conclusion, stage financing is, for venture capitalists, a monitoring means on venture-backed enterprise: each stage represents an opportunity for checking suitability between reached and planned results. In addition, the implicit threat that venture capitalists exercise on the firm through the right to renounce the project at every defined stage is an incentive to correct and efficient behaviour and to reduce the risk of financing.

Professional venture capitalists also mitigate the risk of venture investing by developing a portfolio of young companies in a single venture fund, or co-investing with other professional venture capital firms.

The process of seeking investment commitments from investors is typically called “fund raising”. The fund will seek commitments of capital from institutional investors, foundations and individuals who seek to invest part of their portfolio in opportunities with a higher risk factor and commensurate opportunity for higher returns. Because of the risk, length of investment and illiquidity involved, this type of investment is generally out of reach for the average individual, since the minimum commitment requirements are so high. The venture fund invests in selected companies also by co-investment or syndication, and is called “disbursement”. It will provide capital and management expertise and will usually also have a seat on the company board to ensure investment success.

The venture capitalist, depending on the investment focus and strategy of the venture firm, will seek to exit the investment in the portfolio company within three to five years of the initial investment. Types of exit may be:

- initial public offer: this is the preferable way of cashing in their investment. It consists in the offer of corporate stocks to the public on the stock exchange.
- merger or acquisition of the company by either the original founders or another company;
- trade sale: sale of the firm to another company, typically a large competitor;
- write-off: consists in writing-off a non-performing company.

As regards the first procedure, the creation of a (the) New Market was particularly important in spreading venture capital activity in Italy. Recent regulations stated that for enterprises who have carried out the activity for less than three years, each shareholder venture capitalist, at the listing moment, has to hold at least 10% of equity capital for at least the previous 12 months. The existence of markets with these characteristics contributes to endowing the sector with good exit opportunities from investment and, in this way, support its development possibilities.

## **Venture Capital to Support SMEs Development: Some Italian Experiences**

The resistance of firms, especially family businesses, in finding financial resources through selling equity participation to external investors is well known. Families that have control of the business, very rarely accept new shareholders and prefer to find new resources by loan financing (Ferri & Inzerillo, 2002). However, from the economic point of view, only risk capital can absorb any shock affecting the enterprise, reducing the risk of insolvency.

The conviction that venture capital operations could be a growth opportunity for Italian SMEs, otherwise remaining under-sized, has induced the Italian market (i.e. private operators and public authorities) to take measures to promote and diffuse risk capital investment.

In addition to Aifi, the National Association of Venture Capitalists, which aims to develop, co-ordinate and represent Italian venture capital firms in institutional bodies, the following have to be considered: 1) the Ministry of Productive Activities that created the Simest (Italian Society for enterprises abroad) to manage 5 venture capital funds operating in the Mediterranean area, the Middle East, the Balkans, Russia and China and support the

internationalisation of SMEs; 2) Sviluppo Italia, the national agency for enterprises and inward investment development, which has the mission to promote, accelerate and diffuse industrial and productive development.

The Simest was created in 1991 as a joint stock company controlled by the former Ministry of Foreign Trade, that has 76% of equity participation. Its shareholders include banks, firms and businesses and trade associations. It was created to support entrepreneurs, specially SMEs, in all aspects of business internationalisation, by two main activities: the support to investments abroad, in non-EU countries, and commercial trade promotion.

As regards investments abroad, the Simest, as a member of the European Development Finance Institutions (EDFI) and on the basis of the law 100/90, underwrites up to 25% of the capital of foreign companies in which Italian enterprises have shareholdings, helps Italian enterprises to buy shareholdings in foreign companies and manages venture capital funds.

A direct equity participation of Simest in a foreign company, in which an Italian enterprise already has a shareholding, is the condition for the Italian firm to obtain contributions for interests accrued on financial intermediate loans. The Simest incentive takes the form of buying minority shares in joint ventures set up abroad (outside the European Union) by Italian companies, and of an interest subsidy on contracted loans.

In order to promote investment in particular geographic areas, Simest manages public funds of venture capital that can also buy a share in joint venture abroad. Venture capital participation cannot exceed twice the amount of Simest participation, and together they cannot exceed 49% of the firm capital. The Simest venture capital funds develop investments in many non-EU countries and have often specific conditions reserved for SMEs.

Sviluppo Italia has the mission to promote the country's productive development in three ways: the FDI's attraction in Italy; the support to corporate creation and development; the support to Public Administration for local development programs. The agency supports firm creation and development by the acquisition of temporary minority stakes, by lending at market conditions and by managing a network of enterprise "incubators", that help in creating new SMEs. The acquisition of share participation in firms happens at the moment of capital increase, in minority form (that means up to 30% in grown-up enterprises and up to 49% in SMEs) and is temporary (for about 5 years). Medium-long term loan financing at interest rate and collateral market conditions, can be granted as well as the venture capital financing.

The capital risk intervention is usually preceded by a corporate valuation process, based on a business plan and on the medium term economic and financial forecast. Having passed the evaluation step, Sviluppo Italia requires its members to be on the company board of directors and boards of auditors, and be involved in the balance sheet certification and the drawing up of periodical reports on business trend. Exit terms and timing are defined with the majority shareholder and generally involve the equity participation repurchase from the company. Alternatively, but less frequently, it is possible to sell the participation to outside parties or on the stock market.

In addition to temporary minority equity participation, it is possible to seek other kinds of business support, so-called near-equity, such as the underwriting of convertible or cum-warrant bonds. The possibility of having various kinds of intervention improves the impact with SMEs, that are not often available to open their equity capital to external operators, at least in a first phase.

In conclusion, the presence of company incubators linked to Sviluppo Italia helps the creation of SMEs by supplying them with complete support in the start-up period, consisting in availability of equipped space, in real and financial services and location.

## **Italian Venture Capital Market Dimension: Recent Facts and Figures**

The recent evolution of the Italian venture capital market (AIFI, 2003; AIFI, 2004; Benincampi & Salvini, 2003; Di Giorgio, 2001; Di Giorgio & Di Odoardo, 2002) shows a discontinuous trend: the two-year period from 1999-2000 registered an exceptional boom of venture capital investment, followed by a decrease during 2001, because international economic situation was affected by September 11 and by subsequent stock market weakness. The year 2002, on the contrary, showed a slight resumption of the sector, a signal of the renewed market trust. 2003 was an important year for the development of the Italian venture capital market, since the total amount invested was higher than three billions euros [6]. (see Fig. 1)

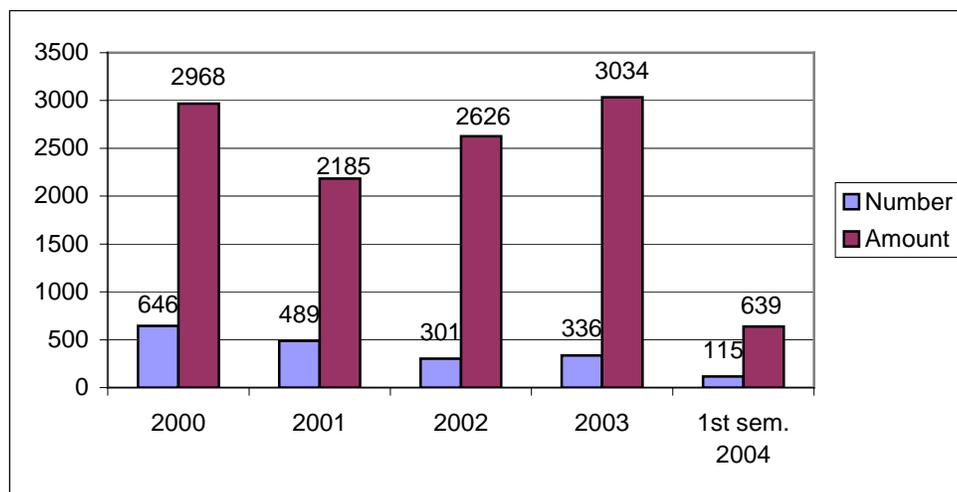


FIG. 1: EVOLUTION OF THE INVESTMENT ACTIVITY  
Source: AIFI (2004)

The data are influenced not only by big buy-out operations, which occurred in the second half of the year as unique in the European scenario, but also by financing operations finalised both at the development of already existing firms (expansion financing), and, for the first time since 2000, at supporting the start-up of new businesses. Considering the target firms' location, an increase in investment in foreign firms was registered, symptom of a growing internationalisation of national venture capital players, but also of a shortage of internal enterprises worthy of support.

In 2003 the venture backed Italian firms were mainly concentrated in the North of the country (84% in number, 97% in financing amount) while in the Centre (11% in number, 2% in financing amount) and in the South (5% in number, 1% in financing amount) they decreased, although the number of regions involved by venture capital players increased (see Fig. 2).

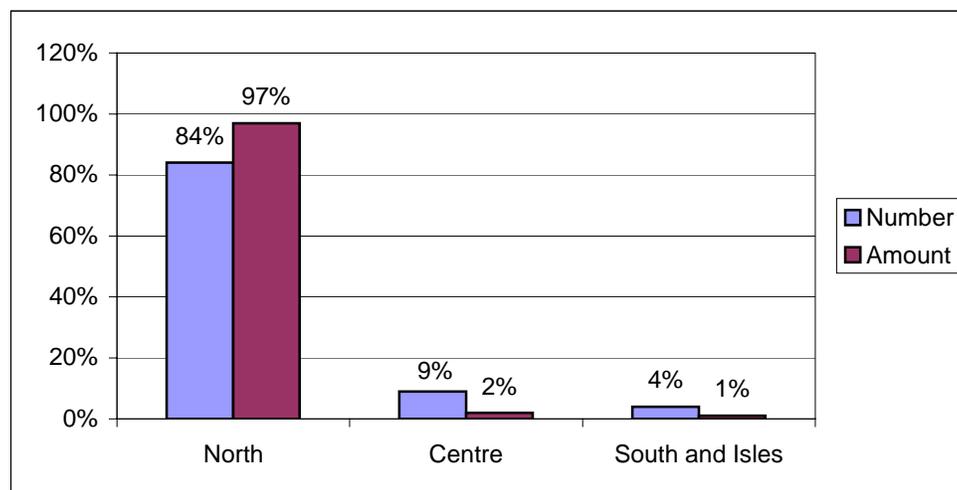


FIG. 2: GEOGRAPHICAL DISTRIBUTION OF THE INVESTMENTS IN 2003  
Source: AIFI (2004)

Considering the economic sectors, the venture capitalists were directed to consumer goods, manufacturing and industrial products and services, while operations in the high-tech sector decreased, both in terms of number of operations and financial resources (see Fig. 3) [7].

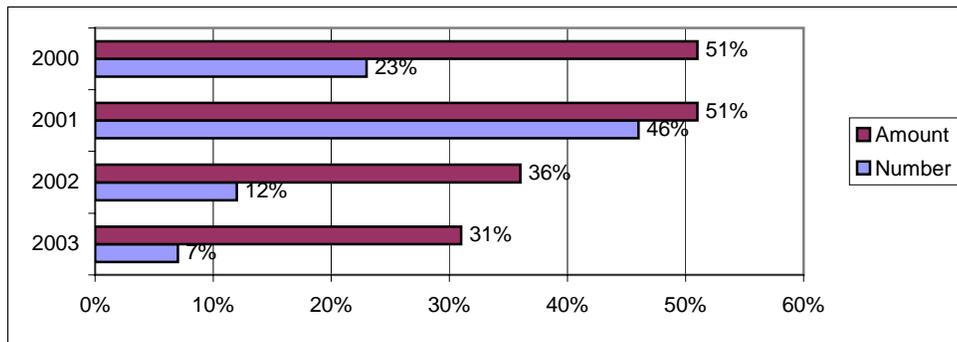


FIG. 3: EVOLUTION OF THE PERCENTAGE WEIGHT OF THE INVESTMENTS IN HIGH-TECH ENTERPRISES  
Source: AIFI (2004)

During 2003, the number of operations ending in venture capitalist exit was 222 with an increase of 55% compared to 2002; the exit systems were mainly a trade sale (221) while only one was the listing on equity market (see Fig. 4).

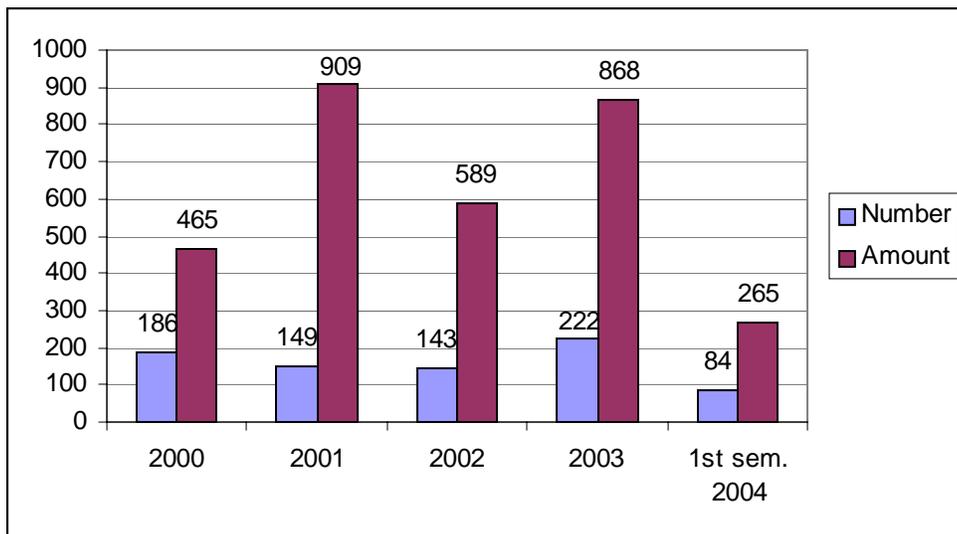


FIG. 4: EVOLUTION OF THE DISINVESTMENT ACTIVITY  
Source: AIFI (2004)

The financial resources mainly came (1478 millions over 1937) from closed-end funds specialised in Italy, which in 50% of cases were foreign. These data underline the international origin of sector financial resources. As regards internal sources, banks were predominant, followed by investment and pension funds. Until 31 December 2003 the portfolio of venture capitalists working in Italy was about 1300 firms.

In the first semester of 2004 115 investment operations were ended, for an equivalent value of 639 million euros, 54% of which was destined to buy-out operations. In addition, there was a relevant increase in start-up

financing (up to 31 operations) to the value of 86 million euros. Most of the total number of operations (53) were undertaken to finance the development of existing enterprises (expansion financing), for an equivalent value of 122 million euros. There were no medium size operations, since 60% was performed on companies with less than 100 employees.

As far as the geographical distribution of the financed enterprises is concerned, an important increase of resources invested in Italian companies was registered. Among these the amount of resources destined to enterprises located in the North of the country remained stable, that destined to the central region showed a slight increase and in the South was low (see fig. 5). Among the sectors affected by investment, the three most financed were consumer goods, telecommunications and chemicals.

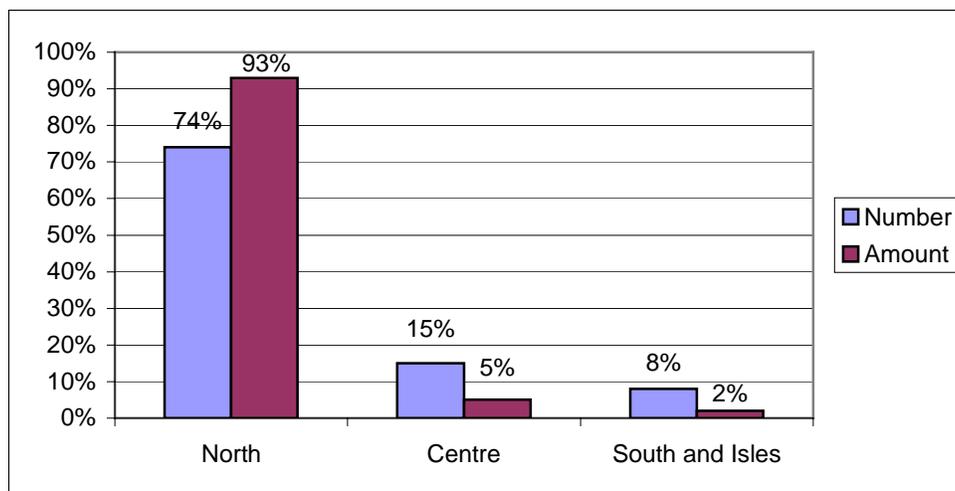


FIG. 5: GEOGRAPHICAL DISTRIBUTION OF THE INVESTMENTS IN 1<sup>st</sup> SEMESTER 2004  
Source: AIFI (2004)

In the first semester of 2004, 59 operations were ended. On 30 June 2004 the portfolio of venture capital investors working in Italy consisted in about 1100 companies, for an equivalent value (at purchase cost) of 8.5 billion euros.

## Developing the Theoretical Model and the Research Hypotheses

In a scenario, formed by international-oriented SMEs, a fragmented banking system but directly connected to local SMEs, and new financial operators in risk capital, shows how the growth of SMEs can be supported both by the traditional bank supplied finance and by venture capital. In particular, the latter proves to be the Italian case in the early stages.

This paper began by investigating the link between SMEs growth and venture capital, proposing a comprehensive theoretical model to be tested that summarises the relation among all the variables involved, from the firm point of view, from the bank and the territorial ones (see Fig. 6).

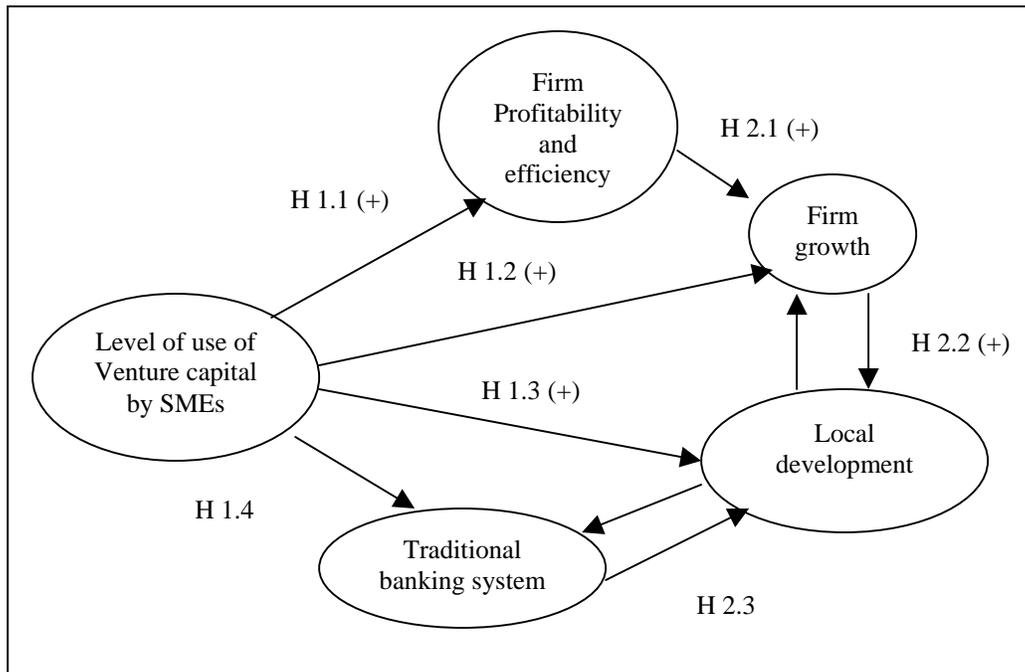


FIG. 6: THEORETICAL MODEL AND HYPOTHESES FOR THE IMPACT OF VENTURE CAPITAL ON THE ECONOMIC SYSTEM

Existing literature (Ferri & Inzerillo, 2002; Vesin & Gianfrate, 2002; Gervasoni & Sattin, 2000) has stated that venture capital financing plays a very important role and produces greater advantages in the present financial system. The role of specialised operators gives SMEs the possibility to increase and find “patient capital” to be used in any stage and activity of the company’s life-cycle.

In such circumstances, the availability of management know-how that the venture capital investor supplies to the firm to reach its development objectives, is fundamental. This know-how comes from management practice, experienced in operations in various contexts. In addition, familiarity with official listing operations can be considered an advantageous factor in defining corporate internal procedures to quotation and to set up the timing and pricing of the operation.

Moreover, venture capitalist contribution in terms of improvement of the corporate balance is considerable, since the venture backed enterprises show higher economic performances, a greater market power than other firms, and also a company image improvement on the market, as experience proves (Gervasoni & Sattin, 2000; Aifi, 2003; Evca 2002; Evca 2004).

In conclusion, the backer carries out an extremely profitable action, aimed at making the firm management and organization more professional, raising communication transparency and quality and introducing or strengthening control of results and planning systems. This situation also involves important repercussions on the local economy, as it identifies and supports the industrial vocation of various geographic areas. This is extremely important for the Italian market, since it can effectively allow the development of industrial districts.

Other research (Evca, 2004) showed that venture capital has a very important role in the development and growth processes of financed enterprises. In fact venture backed companies proved to have higher growth rates in sales, earnings before tax, assets, net capital, occupation, investments, and exports, than the 500 top firms in the same countries. Therefore, it is hypothesised that: H 1.1: the level of use of venture capital is positively correlated to SME profitability and efficiency; H 1.2: the level of use of venture capital is positively associated to SME growth.

The venture capital may also empower the competitiveness of the national system, providing all the tools necessary to enhance local development, through indexes such as the level of employment, the income, induced

activities, and GDP. Thus it is hypothesised that: H 1.3: the level of use of venture capital is positively associated to local development.

As regards the impact of this new financial tool on the traditional banking system, it will certainly force the existing one to reorganise, undertaking more risks but diversifying its activities. Indeed, banks that resort to these tools will better profit from investment opportunities at a positive net present value. The new financial products enable banking institutions to manage their portfolios with greater flexibility and aggressiveness. It is hypothesised that: H 1.4: the level of use of venture capital is correlated to the traditional banking system.

Three further relations derive from the interaction of the relational bonds among the systems. The firm's profitability and efficiency is treated as an antecedent of its growth, especially in the globalisation era; while the latter is doubly linked to the territorial development, it also forces the banking system to reorganise in order to respond quickly to the various markets needs. The three final hypotheses regarding interrelations amongst the relation links are as following: H 2.1: firm profitability and efficiency is positively associated to its growth. H 2.2: firm development is correlated to local development. H 2.3: local development is correlated to the banking system and its support.

The tools to investigate the above mentioned hypotheses are:

- for hypotheses H 1.1 and H 1.2, to compare the performances of listed non venture backed SMEs and of listed venture backed ones on the new market, using the trend of stock exchange price as an index of the venture capitalist intervention;
- for the hypothesis H 1.3, a multiparameter linear regression that relates the dependent variable with three explanatory variables such as the territorial one (GDP and employment rate), economic growth (FDI or exports), and financial variable (ROE of the venture backed ones);
- for the hypothesis H 1.4, a scenario analysis is carried out to evaluate the Italian listed banks organisation in order to analyse the venture capital related structures, their performance and the existence of closed funds.

The complexity of the model needs a systemic approach (Golinelli, 2000), in order to process the data and connect them to better understand the effects of venture capital. In particular, even though they represent weaknesses for the efficient and fast development of venture capital, Italian peculiarities are factors, that, if adequately exploited, will become strengths.

Furthermore, the opportunities of use these can support and foster the competitiveness level of the national system, for incoming or outgoing investments, helping the Italian economic systems (banking and industrial) to grow and cooperate, dealing with macro phenomena, such as internationalisation, FDI (global) absorbing them at a micro level (local), through consortium and more direct connection between SMEs and local banks, in order to reach competitive advantage, through the use of venture capital (glocal).

This model is a first attempt at exploring and generalising the effects of venture capital on the local economic structures. Although the model is still in the early stages and at the first stages of testing, future research will explore the validity of both the model itself and its reference to the various territorial entities, given the existing diversity among the various national systems and within them as in Italy's case, with its different regional situations.

## Conclusions

To date the global economy requires financial capital to finance trade and investments, or rather growth. This demand has caused the introduction of new tools and the system's deregulation.

On one hand, globalisation necessitates a financial system that is not linked with places, but on the other such a decontextualisation needs specific spaces where resources are concentrated and where transactions gain more value. This is generated by trust and reciprocity. Therefore the relationships between local banks and SMEs create and distribute more value especially if the former participate in the latter's risk and entrepreneurship.

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### End Notes

M. Intonti contributed specifically to section 3, 4 and 5, L. Petruzzellis to section 2 and 6.

[1] According to UN (2003) almost one third of international trade takes place between firms connected through investment relations or production agreements. Moreover, a direct presence on the target markets shows benefits not only in cases of favourable conditions, but also in cases of unfavourable ones minimising the effects of international crisis.

[2] In the period 1990-2001 there have been 386 mergers or incorporations among banks and 166 acquisitions of the stock-holding majority, which reduced the number of banks in Italy from 1061 to 769.

[3] Venture capitalists have nurtured the growth of America's high technology and entrepreneurial communities. Companies such as Apple, Federal Express, Compaq, Sun Microsystems, Intel, Microsoft are famous examples of companies that received venture capital early in their development.

[4] Therefore, banks are classified in three groups: "ordinary", "qualified" (i.e. important banks with a capital of a billion euros, fully respecting capital adequacy requirements), "specialised" (i.e. the same as qualified, plus having a mainly medium-long term liability structure). The individual limit (3%, 6%, 15%) concerns the amount of a single participation in non-financial enterprises compared to bank capital, the global limit (15%, 50%, 60%) concerns the total amount of the same participations compared to bank capital and the separation limit (15%) concerns the amount of participation compared to non-financial enterprise capital.

[5] Even individuals may be venture capitalists. In the early days of venture capital investment, in the 1950s and 1960s, individual investors were the main venture investors. Actually, venture firms are the dominant venture investment vehicle, while the individual investment did not totally disappear. Indeed, in the last few years, individuals again became a potent and increasingly larger part of the early stage financing. They are known as business angels or angel investors and can mentor a company and provide needed capital and expertise to help to develop companies. They either be wealthy people with management expertise or retired business people seeking the opportunity for business development.

[6] During 2003, 3034 million of euros were invested, with an increase of 16% compared to the previous one, on a total amount of 336 different operations. 2258 millions of 3034 were destined to buy-out operations and 583 to expansion ones. These were 175, while the start-up operations were 65. In 2000, 11 venture backed companies were quoted in the New Market. After some years of inertia, at the end of 2003 new venture backed company quotations were registered: they were Travisa, Isagro, Azimut, Procomac and DTM.

[7] The financial resources directed to these companies were only 7%.

# The Study of ERP Implementation for SMEs in Thailand

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## Abstract

During the last 3-4 years, supply chain management approach has been widely implemented in Thailand. It is expected to be one of the solutions that can increase competitive advantage for Thailand SMEs. Resource Planning is one of the key activities in supply chain. To link all information in the chain, ERP (Enterprise Resource Planning) has emerged. Despite its useful applications for supply chain management, it is found that there are still constraints and difficulties for implementation especially in SMEs. In this research, we have put an effort to identify the critical success factors for implementing ERP in Thailand. After the literature survey and the interviews with a number of ERP software providers, it is discovered that there are seven critical factors for the success of the ERP implementation. After that, a postal questionnaire survey was conducted in order to investigate readiness of Thailand SMEs in implementing ERP. The results reflect the status of IT infrastructure in the SMEs firms. Steps for implementing ERP for SMEs in Thailand are proposed.

## Introduction

Information technology (IT) is recognized as a primary tool in creating and strengthening the development of supply chain. Resource Planning is one of the key activities in supply chain. Nowadays, those philosophy and techniques such as MRP (Material Requirement Planning), MRPII (Manufacturing Resource Planning) and CRP (Capacity Resource Planning) require the use of IT for linking and sharing resource and planning information in the supply chain. Ultimately, to link all information in the chain, ERP (Enterprise Resource Planning) has emerged. ERP is an approach that enables the integration of transaction-oriented data and business process throughout an organization or an entire supply chain[1].

Small and Medium Enterprises (SMEs) is a group of business that significantly influence the entire economies of Thailand. Resulting from economic crisis in 1997, several problems in SMEs emerged in the areas of administration and management. ERP is one of the principles that has been applied successfully and solved these problems in a number of big enterprises. However it is suspected that there might be some limitations and difficulties for implementing this concept, especially with information technology, in SMEs. Thus, the purpose of this research is to identify the critical success factors for ERP implementation in SMEs in Thailand. Readiness and limitations for ERP implementation should be identified. There is also a need to show that if SMEs in Thailand would like to use ERP in their organization, what they should provide and how their ERP implementation steps should look like.

## Methodology

In this research, we begin with literature survey in order to gather a background about important criteria for implementing ERP in SMEs. Critical success factors (CSFs) are found. Then the interview is conducted. We have interviewed 10 ERP providers in Thailand in order to investigate the requirements they may have in implementing ERP according to those CSFs found in the literature. After that, a postal survey is used. The 800 sets of questionnaires are sent to the owners of SMEs in Thailand particularly in industrial sectors namely: headgear such as hat, cap (84 factories), plastic products (102 factories), food (111 factories), spare parts (112 factories), diary products (111 factories), clothing (91 factories), electronic equipment (102 factories) and leather (80 factories). This enables us to find the limitations of SMEs in using ERP in accordance with those requirements identified from the

interviews. The final step is to analyse and summarize the overall results and propose the ERP implementation steps for SMEs in Thailand.

## **Findings**

### **Findings from Literature**

Mashari and Zairi [2] said that the organizations implementing an ERP software should be prepared for organizational changes across various key areas related to strategy, technology, culture, management systems, human resources, and structure. The exclusive focus on technical aspects, at the cost of change management elements, has proved to be a major source of failure. It was also said that to implement an ERP, high cost of investment and effective human resource are required. A survey of SAP implementation experience shows that 63 percent of the responding companies used change management tools in various stages of implementation[3]. Curran and Ladd [4] stated that we need to understand how corporate and national cultures impact an ERP implementation and how this understanding delivers better methods for implementation. Bancroft, Seip and Sprengel [5] show example of an effective SAP R/3 project implementation which needs a wide participation from people in different business units and from different managerial levels, as well as the involvement of external parties such as consultants and customers. This critical demand falls most heavily upon a strong project management infrastructure.

From those above literature, it can be listed that the critical success factors for ERP implementation are: cost (the amount of money in ERP implementation), technology (IT infrastructure), technical installation process, strategy, business process re engineering, change management, project management infrastructure, human resource, and culture change.

### **Findings from the Interviews**

Ten ERP providers were interviewed according to the CSFs found from the literature. The outcomes show their perspectives on each CSF and the present status of ERP software in Thailand.

According to the interview, the providers view that there are two types of cost occurred - primary and secondary cost. The primary cost includes all cost that are paid at the beginning of the implementation which are hardware cost, software cost, implementation cost, consultant cost and add-on cost (cost of adjustment and adaptation to fit in each business). The secondary cost includes all cost that occur upon system running e.g. maintenance cost. We also found that the costs of ERP software are different. These range from 20,000 bath for small system to millions baht. Cost of server is 100,000-200,000 bath per server. Cost of client is 20,000 bath per client.

Technology needed can be viewed in terms of hardware, software and LAN. The hardware is typically PC for server and client. The software is composed of operating system, database and ERP application. For technical development, it should begin with basic computer skills such as MS-Office. Then more advanced skills should be trained such as LAN network and database. Some companies may have their own IT department but some choose to outsource their IT maintenance and development operations.

The providers suggested that each organization must have certain goals and investigate their real needs. They should know their own business process clearly and be able to prioritize the ERP modules needed.

Business Process Reengineering is one of the most important factor. Each organization should adjust their business process to be suitable for the ERP implementation. The new business process should be designed prior to the implementation. Importantly, it needs to be very careful if the old process is still activated at the same time.

It is also suggested that top management must take part in this big change. They should assign a project manager with a team to be responsible for this implementation. Each ERP module should be responsible by a representative from each department and report directly to the project manager.

Training and knowledge transfer is also essential. All ERP operations should be made clear to all level of operators in order to let them be familiar with this new system.

Furthermore, the outcomes from the interview also show examples of the status of ERP software providers in Thailand as seen in Table 1.

### Findings from the Survey

The survey response rate is 12.48% from various sectors. Forty six percent of the respondents are medium size with the revenue more than 100M baht. More than half of the respondents (53%) state that they have not heard about ERP before. Only 17% of the respondents are using ERP in their current system and 4% has just begun to implement. Among the ERP users, 6% of the respondents said that cost of investment is more than 10M baht, 4% of them said that it falls between 5-10M baht, 7% of them said that it falls between 1-5M baht, another 7% of them show the cost is less than 5M baht and the rest of them did not answer the question.

Sixty nine percent of the respondents use Window98 as their operating system and 18% is still using Window95. Thirty three percent uses MS-access for their database and 21% of them use MS-SQL. Only 6% of them use oracle. Not surprisingly, 53% of them do not have an IT department

About the CSFs investigation, 41% of them are aware of the importance of strategic planning but only 26% in the group put much effort on following the plan. Surprisingly, 68.69% are enthusiastic about BPR and are willing to make any changes in their organization. Forty five percent of the respondents pretty much understand the reason for changes.

TABLE 1: THE STATUS OF ERP SOFTWARE IN THAILAND

Company	Software	Operating System	Database	Cost of software		Total Cost Implementation
				Min Cost (Bath)	Full Package (Bath)	
A	Oracle	NT, Unix	Oracle	400,000	-	-
B	SAP	Windows Base	Oracle, SQL	2.4 M	-	8-10 M
C	JDE	AS 400	DB2, SQL	1.5 M	4.5 M	6-10 M
D	SAP, Oracle etc	-	-	**It depends on the revenue of customer	-	-
E	Macola	Windows Base	SQL	500,000	2 M	2-3 M
F	Macola	Windows Base	SQL	500,000	-	1.5 M
G	EFACT	Windows Base	SQL	-	1.2 M	1.5-2.5 M
H	-	-	-	-	-	2 M
I	Forma	Windows Base	-	20,000	2.5 M	5 M
J	-	-	-	100,000 +	-	3 M

About training program, 44.44% of them always have the training program run across the year while 6% of them never support staff training program. Around fifty nine percent of the respondents show top management involvement in every meeting when changes occur while 33.33% shows their seldom involvement from their top management.

## Discussion

### SMEs Readiness

From the survey results, it is found that SMEs are not ready to invest in full package of ERP. While the budget for implementing ERP is estimated around 600,000 to 2 million baht, the majority of SMEs in Thailand can only prepare the maximum budget of 500,000 bath per year. Most operating systems used in SMEs are based on Windows 95 and Windows 98. This must be problematic if SMEs plan to handle a number of transactions in the

future particularly for ERP implementation. The survey results also show that most SMEs still have inadequate human resource in IT. Moreover essential technical knowledge such as database and operating system are still insufficient.

About the critical success factors, although they may have their strategic plan and are aware of its importance, they hardly operate their works in conformity to their objectives and strategies. However it is found that they mostly are aware of business process re engineering and tend to have good attitude for changes. Some of them show their interest in training program although not high percentage of the respondents pay much attention on this. There is still a good sign for potential improvement. Top management involvement is quite high in any changes in organization. However more communications and coordination between levels of management are needed.

#### **ERP Implementation Steps**

From the overall results, we propose the steps for ERP implementations for SMEs in Thailand. The first step is the internal audit which relates to three parts: objectives, requirements, and strategies. SMEs should determine the objectives and requirements for using ERP in the organization before they purchase any ERP software.

The second step is to investigate their readiness on budget, technology, technique and human resource. Adequate budget, how to obtain technical knowledge and how much skill and knowledge their staffs should have, must be evaluated and provided. The third step is to choose ERP providers by considering the factors of cost, technology, technique and human resource assessed in the previous steps. The fourth step is the planning for ERP implementation which relates to two parties. The ERP provider and the company should meet up. Every details, constraints and conditions from each party must be declared. The fifth step is the ERP implementation. The ERP provider should provide staffs, project leaders and consultants while the top management, project leaders and users in the company must involve. The company should also provide a training and ensure that they understand each step in the application and are able to operate them correctly. The best way are that the ERP provider and the company must jointly run the project and that they should also meet and coordinate with each other all through the implementation process. The sixth step is monitoring and controlling the project. This step needs to take into account the four factors: project management, business process reengineering, change management and change in culture. The company must be aware of and manage each factor closely. It can be seen that the critical success factors identified earlier are mentioned in this implementation steps. This can be summarized in fig.1.

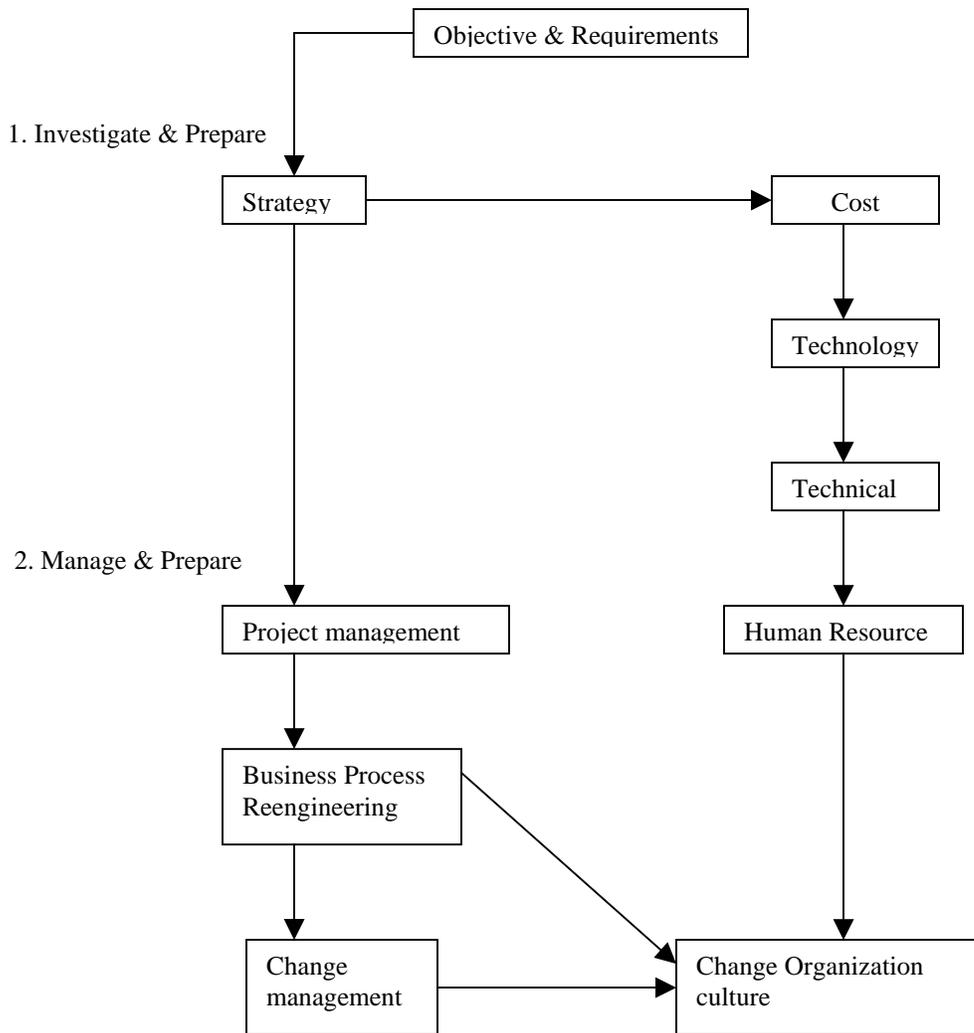


FIG.1 CRITICAL SUCCESS FACTORS IN IMPLEMENTING AN ERP

## Conclusions

The study has shown the status of SMEs in Thailand regarding the ERP implementation. We have investigated the issue by literature survey, interview and postal survey. The outcomes from our study show that although a number of big firms have experienced successful ERP applications, it might be too advanced for SMEs in Thailand. By considering those critical success factors identified, obviously, cost and technology might be the major obstacles for the SMEs. In other word, SMEs is not yet ready for implementing the application. The first reason must be those inadequate infrastructure including information technology together with investment budget. The second reason are those relate to management system in SMEs organization. This refers to change management, organization cultures and willingness to do the business process reengineering. Apart from that, it might be necessary to consider whether this ERP software is suitable for small to medium scale of operations as SMEs or not. The implementation steps

presented in the paper has highlighted the importance of organization objectives and strategic plan. This should be the first question to ask themselves if the answer should be the ERP, otherwise at what stage of resource planning they should go for.

However there is still a good sign in SMEs development status in Thailand. They tend to recognize the importance of information technology and are enthusiastic in learning and business process changing for improving their organization. Thus, to go for an ERP software might be a long way but at least it is realized that we are making a progress preparing for the concept.

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# Entrepreneurship without Economic Development: The African Case

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## Abstract

**In sub-Saharan Africa entrepreneurship is expected to lift countries out of poverty, improve income distribution, and increase political stability. The privatization of state owned enterprises (SOEs) is one approach African governments have pursued in order to promote entrepreneurship. Many African governments have privatized SOEs by selling them to the highest bidders. This has not promoted entrepreneurship among indigenous Africans. On the other hand many indigenous Africans are starting businesses, some because they have been laid off due to privatization, and others because of government small business promotion programs. However, most of the business start-ups never expand. Moreover, business expansion and profit maximization are rarely objectives of African small business owners. Consequently, because start-ups do not expand, the number of entrepreneurs is rapidly increasing while the overall economic conditions in African countries are not improving.**

## Introduction

“Entrepreneurship is in,” declared Albert Shapero (1984) in an article published in the *Journal of Small Business Management* entitled “Why Entrepreneurship? A Worldwide Perspective.” Shapero is only one of a growing list of observers who have commented on the upsurge in the interest in entrepreneurship worldwide. Other observers have included Carland and Carland (1993), Rein Peterson (1988), and Malcolm Harper (1991).

Although definitions of entrepreneurship are generally controversial, in this paper entrepreneurship is defined as “any attempt at new business or new venture creation, such as self employment, a new business organization, or the expansion of an existing business, by an individual, teams of individuals, or established businesses.” This is a very broad definition but it is used here because it is the one used by the *Global Entrepreneurial Monitor (GEM)* to measure entrepreneurship in different countries. (Zacharakis et al, 1999)

Many forces have combined to bring about the international groundswell for entrepreneurship. In the United States the forces that have rekindled interest in entrepreneurship that are frequently mentioned include the explosion of new technologies, especially in electronics, creating many new business niches; deregulation, especially in telecommunications, banking, and air/road transportation, allowing many newcomers in these industries which were previously open only to investors who met strict conditions; demographic shifts, especially in the participation of more women and minorities (including recent arrivals such as Koreans and Indians) in the workforce, including self-employment; an increase in masculine values such as materialism and independence (it is alright to be a millionaire, and most millionaires made it on their own) (Zimmerer et al, 1998); and, especially in the 90s, the emergency of “lean and mean management” as the corporate strategy of choice, which has resulted in massive layoffs, pushing many persons to venture out on their own.

Although not directly a factor considered by an individual for starting a business, entrepreneurship contributes to the improvement of the economy. Entrepreneurs increase total national output and employment. Through entrepreneurship, there is less economic concentration. Since economic power is a conduit for political power, entrepreneurship also contributes to a reduction in political concentration, and consequently an increase in democratic government. Entrepreneurship also enables otherwise marginalized peoples to enter the economy. These macro considerations associated with entrepreneurship are important for any country, including the U.S. For example, there is always a need for new jobs, and there, historically, always have been peoples who are left out by mainstream institutions, who have to start businesses in order to survive.

These macro factors are much more important for most third world countries, still characterized by low output, high unemployment, low but skewed income distribution and shaky democratic institutions. Many of these countries also have many marginalized populations, for religious and ethnic reasons (e.g., the Kurds of

Iraq and the Christians of the Sudan). It is these macro factors that figure most prominently in the push for entrepreneurship in the developing countries, especially those in Africa. In Kenya entrepreneurship is seen as an instrument for national development – “economic growth, improved quality of life, the equitable distribution of resources, and the capacity of the economy to deal with its socio-economic and environmental problems.”(Republic of Kenya, 1994). The question is whether entrepreneurship is up to the job. In the paragraphs below an attempt is made to address this question. First we look at privatization/liberalization as one of the leading approaches for promoting African entrepreneurship. We then examine the major reasons why the results of entrepreneurship in Africa are falling short of expectations. These reasons are political, economical and socio-cultural. However, before proceeding with these topics we need to make one cautionary note. It has to do with the vastness of the continent, even when restricted to Africa south of the Sahara. There are over twenty-five completely independent nations and over three hundred million people with somewhat different cultures. A major cause of the diversity among African peoples is colonial heritage. The French had different attitudes toward their colonial territories from those of the British. And so did the Spaniards, Portuguese, and Belgians. In this paper we hold the belief, as many others have, that there are enough similarities in the experiences African peoples have gone through, in their cultures (highly communalistic), and in the problems they face, to justify writing about them as if they were one people. Nevertheless, known differences between African countries will be noted at appropriate places.

## **Promoting Entrepreneurship Through Economic Liberalization and Privatization**

A popular approach to promoting entrepreneurship in Africa, since the late 1980s has been turning over state-owned enterprises (SOEs) to the private sector. This approach is often pushed by the international finance community (donor countries, the IMF and the World Bank) under what is commonly known as “structural adjustment programs” (SAP). The approach is assumed to be fundamentally sound because it attacks one of the major reasons that explains low levels of entrepreneurship in most African countries. Entrepreneurship is low because African governments dominate too many economic activities, via SOEs. Private/individual entrepreneurship is low because state entrepreneurship (state capitalism) is too high (Elkan, 1988).

There is a long list of reasons that are frequently given for state capitalism in Africa and elsewhere. They are mentioned here only in summary form. First, there is the natural monopoly/economies of scale argument. Government should produce electricity because there is only room for one producer and no private company to undertake the heavy investments needed. Probably most SOEs established during colonial times were justified on this basis.

After independence, beginning with the late 1950s, the reasons for setting up SOEs became heavily political. State ownership of means of production was offered as an anti-dote to capitalistic exploitation. State ownership of means of production was also seen to be more compatible with the communalistic culture known to be prevalent in black Africa (Friedland and Roseberg, 1976). State ownership of the “commanding heights” of the economy was also needed to protect “economic sovereignty”, and eventually political sovereignty. Fiscal expedience was also a factor in some SOEs, especially those in the marketing field. A government-owned crop marketing corporation could price crops in such a way that there was no need to impose income taxes on farmers. This was politically expedient before and after independence. Before independence, there was also a concern to protect unsophisticated African farmers against the fluctuations of international commodity markets. Crop marketing SOEs maintained price stabilization “Funds”. Drawings were made out of these funds to supplement incomes to farmers whenever international commodity markets dipped too low (Livingstone and Ord, 1994). Although never stated directly as a reason for setting up SOEs, many SOEs were set up to serve political patronage functions. Government ministers’ supporters had to be rewarded, and SOEs provided a convenient way for returning favors – jobs, factories, and loans. Also, used prudently, SOEs could be an instrument for political and economic balancing, still essential in most African countries.

Whatever their justifications, SOEs can readily be seen as a threat to private/individual entrepreneurship. So, private entrepreneurship development necessitated an onslaught on SOEs. To help the

process along, SOEs were badly failing to deliver the goods, the economies were stagnating and often declining. SOEs were destroying their countries' economies due to rampant inefficiency. Their survival depended on financial support, often squeezed from donor countries and organizations. At the same time donor/foreign aid from socialist countries was drying up. But probably the biggest blow to SOEs was the dissipation of ideological support. State capitalism lost out to private/western capitalism, with the demise of the Soviet Union. SOEs were out, or should have been. In most cases the IMF was going to see to that. Privatization was going to give a boost to entrepreneurship.

Privatization has taken many forms in the different African countries, sometimes even within the same country. In general the most profitable SOEs (especially in telecommunications) have gone to the highest bidder, often a foreign company. This form of privatization has been very good to national treasuries. In Ghana, for example, Ghana Telecom brought in \$38 million (Euromoney, 1997). It is highly doubtful that this approach to privatization contributes to entrepreneurship in the country at all. This is particularly the case if we concentrate our attention (as is commonly done when discussing entrepreneurship in black Africa) on indigenous entrepreneurship. After all, in many African circles, privatization should "boost black economic empowerment (The Wall Street Journal, 1995). While often the privatized organization's efficiency and profits go up after privatization, many employees lose their jobs.

On the other end of the spectrum, hopelessly money-losing SOEs have merely been abandoned, and have had their assets, if any, sold off. This has been the approach most frequently used for bankrupt/run down marketing/trading and transportation SOEs. Ironically, this approach has offered the greatest promise for entrepreneurship. Almost everywhere a government-operated transportation company has folded up, there has been a rush of African entrepreneurs to fill up the slack, by providing taxi, bus and truck service.

Where there are stock exchanges, such as in Ghana, Nigeria, and Kenya, the approach used to privatize some SOEs has been by selling government shares to the private sector via the stock exchange. It appears that this is the approach African governments have hoped to use in order to make the greatest impact on African entrepreneurship. Countries such as Nigeria placed some stipulations on these SOEs' stock sales. One such stipulation has been the percentage of the shares to be sold to "small investors". There has been even an effort to incorporate regional and ethnic balance (Drum, 1993). Unfortunately, this approach has proved impracticable in places where there are no stock markets, or where "small investors" have not been forthcoming because they have no access to loans to buy the shares reserved for them. On occasion governments have attempted to extend loan money for that purpose. Without minimizing the noble motives that drive governments' efforts in this area, there are a couple of issues to be addressed. First, should African governments be extending loans for financing stock purchases? What guarantees are offered for loan repayment? Why are commercial banks so reluctant to extend such loans? A second issue that needs to be raised relates to the "content" of entrepreneurship in the activity of owning corporate stocks. Granted there is risk-taking in owning stocks, and risk-taking is inherent in entrepreneurship. But entrepreneurship is managing risk through one's own effort. Does one take personal credit when his/her stock goes up? Probably not. A wide ownership of corporate stocks is good for economies, but it is not because it is an entrepreneurial activity on the part of individual stockholders.

Although African governments have either liquidated or sold off many SOEs or are in the process of doing so, they almost always stop short of turning over every SOE to the private sector. Most African governments still retain full or majority control in some public utility SOEs, especially electricity and water corporations. Also frequently retained are airlines, and specialized banks. And probably Nigeria will never privatize the oil refining SOEs completely.

We pointed out earlier that many SOEs were used for political patronage, and that sometimes this was the main (but unstated) reason some SOEs were created. Many SOEs suffered from inefficiencies due to having too many people on the payroll. Privatization has, therefore, resulted in massive layoffs. This has been especially the case with respect to selling SOEs to foreign interests. In Ghana, for example, privatization resulted in over 45,000 layoffs (Euromoney, 1997). Although privatization has caused many layoffs, African governments have, under IMF structural adjustment programs, been required to carry out additional layoffs in government departments. The massive layoffs have forced some people to become entrepreneurs. As we stated

in the introduction, the recent massive layoffs in the U.S. have been responsible, in a significant measure, for the recent rapid increase in the interest in entrepreneurship. Nearly 15% of the laid off employees have used their severance packages (including incentives to quit voluntarily) to launch businesses (Entrepreneur, 1994). It is conceivable that a large percentage of Africans (probably larger than in the US) of those laid off go into businesses for themselves, although few of them, in Kenya, for example (Republic of Kenya, 1994), have had severance packages to cushion the transition from employee to entrepreneur. Consequently, the businesses they have been able to start must be very small indeed, and they are not likely to grow.

Many observers of entrepreneurship in sub-Saharan Africa have noted the rapid growth in the numbers of business start ups. In fact a Global Entrepreneurial Monitor (GEM) survey in 2003 found Uganda, an African country, to be the most entrepreneurial nation of the 31 countries which have conducted GEM surveys. The survey found that a third of Uganda's population was "engaged in some kind of entrepreneurial activity" (Walter, 2003). Uganda was more entrepreneurial than the U.S., where only about 12 percent of the population is engaged in some form of entrepreneurial activity. However, Uganda, the only African country which has conducted a GEM survey, is also the poorest of the 31 countries which conduct GEM surveys. It appears that in Uganda and the vast majority of the countries in sub-Saharan Africa the huge numbers of entrepreneurs does not lead to high economic growth, and other aspects of national development. In the following two sections the reasons for this seemingly puzzling situation are explored.

## **Cultural-Social Values and Business Growth**

It was stated in the introduction that in the US a growing number of entrepreneurs are lured into entrepreneurship out of their desire to be independent. And a large body of research has discovered a deep-seated concern for independence among those who go into business for themselves. In their surveys, the National Federation of Independent Businesses (NFIB) concluded, "the primary reason people go into business for themselves is personal achievement and independence" (Dennis, 1993). And in the article cited earlier, Albert Shapero claimed that his involvement in entrepreneurship programs in many parts of the world has led him to believe that "...independence is the primary, driving motivation of the entrepreneur" (Shapero, 1985). Morris, Davis and Allen (1994) have also pointed out that "of all the elements necessary for successful entrepreneurship, the independent entrepreneur is the most critical." In the U.S. the high level of entrepreneurship is commonly attributed "to the cultural values of freedom, independence, self sufficiency, individualism, achievement, and materialism" (Morris et al, 1994). Studies on African entrepreneurship have found attitudes towards independence to be one of the major predictors of entrepreneurial success, success defined as business growth (Frese et al, 2002 and Koop et al, 2000). Independence is a major component of the entrepreneurial orientation personality, which Frese et al found to be critically important for entrepreneurial success in the difficult environment in Namibia. They defined entrepreneurial orientation to embrace autonomy, innovativeness, competitive aggressiveness, and risk taking. Independence or autonomy, is the "ability and will to be self-directed in the pursuit of opportunities" (Lumpkin and Dess, 1996). Frese et al (2000) point out that "an autonomous owner is motivated to act and make decisions independently. It [autonomy] helps a business owner to be successful because self direction allows quick and self-reliant decisions."

It is very doubtful, and there appears to be no evidence to suggest, that independence is the primary motivation of the vast majority of African entrepreneurs. Studies that have investigated this question (Bewayo, 1995, and Gray et al, 1997) tend to point to more basic motivations, a la Maslow's hierarchy of needs. African entrepreneurs tend to emphasize "economic survival", "making a living," and "providing for family" as reasons for going into business. It appears that entrepreneurs in Africa look at business ownership as a way out of poverty or a way to survive for themselves and their families. They are not even concerned about maximizing profits, they just want to make a living. The African entrepreneur tends to be much more of a "necessity" entrepreneur than an "opportunity" entrepreneur (Reynolds et al., 2001). The African entrepreneur is motivated by necessity and has no other ways to survive. That African entrepreneurs may not be too concerned about independence and profit maximization has implications for what entrepreneurship will and will not do for

African countries, for the near term at least. It may also have implications for government programs to assist entrepreneurs.

When the entrepreneur's objective is merely to make a living or merely to provide for family, we should not expect businesses to expand and become big businesses, as entrepreneurial firms do. This is probably one of the explanations of the frequently found phenomenon in African countries: the number of businesses is rising rapidly, but not their average size. "Evidence indicates that the number of MEs [micro enterprises] has grown steadily over the last two decades in sub-saharan Africa and continues to grow while the size of MEs themselves does not change much" (Fafchamps, 1994). Unfortunately, it is now clear that economies do not grow on the basis of small businesses alone (Dana, 1988). Economists doing research in this area point out that "Jobs arising from expansions are likely to reflect demand-pull forces, while start up jobs are more likely on balance to reflect supply-push forces as individuals search for activities to sustain themselves" (Liedholm et al, 1994). Consequently, a country can experience an entrepreneurial boom, and still remain poor. Entrepreneurship may, thus, fail to lift a country out of poverty. A study covering Kenya, Swaziland, Zimbabwe, Botswana, and Malawi found that only 0.9% of the surveyed firms grew to 10 employees or more over a five year period (Liedholm, et al., 1994). Most start-ups stagnated at start up size (1 to 4 persons). Nearly 30% of the start-ups failed in five years. Those, which survived without expanding, did so due to their access to cheap labor and capital (family labor and savings), and probably deep commitment, as is common in family businesses. They also survived by remaining below the radar of government bureaucrats, thus not paying for licenses and avoiding taxes (Fafchamps, 1994).

It should be pointed out, however, that most models for promoting entrepreneurship are predicated on the assumption that entrepreneurs start businesses and grow them over time. For example, in the U.S., the section 8a program for promoting minority entrepreneurship is aimed at getting a minority entrepreneur through the tough initial years of existence. Once established the minority entrepreneur is expected to fend for him/herself, locating customers and funding.

Businesses which stagnate at small size, even though they might have certain advantages tied to their size (Fox, 1988) (21), face certain disadvantages, one of which relates to financing. Surveys of African entrepreneurs cite lack of capital to be the most serious constraint they encounter (Satta, 2004, and Morewagae et al., 1995). In a survey of 13 African countries (Cameroon, Cote d'Ivoire, Ethiopia, Gabon, Kenya, Mauritius, Morocco, Namibia, Nigeria, Senegal, South Africa, Tunisia, and Uganda) only South Africa and Tunisia had reasonable availability of loan financing from commercial and development banks (Nyiira et al., 2001). Commercial banks do not want to lend to very small businesses, because of the high transaction costs relative to loan size. Further, an overwhelming number of African entrepreneurs are devoted to speculative trade (Fafchamps, 1994), always an activity banks are reluctant to finance. Additionally, banks face difficulties in assessing the credit worthiness of potential borrowers due to lack of proper accounting and difficulties in minimizing bad debt due to the poor legal system in most African countries. Most government small business loan programs are expected to be stop gap measures. Borrowers are expected to establish more long-term relationships with the banking community. Failure to do so eventually cripples the business.

We stated earlier that African entrepreneurs are not particularly concerned about maximizing profits, and that this may explain why many of their businesses stagnate at small size. Their lack of concern for independence may also have the same consequences, although not necessarily. An accentuated concern for independence has both positive and negative implications for entrepreneurial success. And so does a low emphasis on independence. That African entrepreneurs tend not to emphasize independence, at the present time any way, has both positive and negative consequences. On the positive side, issues of control do not arise, and accordingly, do not demand solutions. Loss of control is a major issue in raising funds for businesses (Longenecker et al. 2003). This issue is at center stage in the debate between equity and debt financing. This debate is not likely to be a serious one for African entrepreneurs. Relatives, friends, and others are readily invited to help out. Moreover, a low emphasis on independence (and an emphasis on cooperation and teamwork) is probably essential for growing a business, if growth is an objective. Entrepreneurship in a growing business requires a reduction in the emphasis on independence and individualism (Morris, et al., 1994).

On the negative side, a total lack of concern for independence may invite excessive interference from outsiders. The presence of extended families in most African countries already makes excessive interference from outsiders, and excessive concern for others, real possibilities. Lack of concern for independence is not likely to make the entrepreneur protective about his business. Consequently business assets may be squandered satisfying non-business ends, a constant concern (Republic of Kenya, 1994). Under these circumstances, it is even debatable whether profit maximization could be a viable objective. This lack of concern for independence leads to lack of concern for profit maximization. Independence and a little bit of selfishness are required to grow a business. They give the ability and self-direction to pursue new opportunities.

Independence has long been a phenomenon of great interest in discussions of national cultures. G. Hofstede (1984) contrasted it with collectivism. We already noted that many people attribute the high level of entrepreneurship in the U.S. to the deeply-seated cultural values of independence and freedom (Morris, 1994). Sub-Saharan African communities have been commonly considered to be communalistic with strong tendencies for altruism towards family, clan, tribe, and in rare cases, country. Fafchamps has observed that “in most of sub-Saharan Africa mutual assistance is a way of life” (1994). He believes that this is one of the major reasons why an African businessman may choose to “transmit valuable information to relatives and friends instead of trying to use it” himself. In this case and similar others a businessman misses on an opportunity to expand his business.

Social networks, a derivative of communalistic life, have been found to enhance entrepreneurship among many communities. Reynolds (1991) has stated that social networks are “an important prerequisite to starting a successful new firm”. In the U.S. much of the success of Asian entrepreneurs has been attributed to the existence of well-maintained social networks. A popular manifestation of social networks has been the Rotating Credit and Savings Associations, called “kye” in Korean and “hui” in Chinese, which are communal business funds from which members of the community borrow for business and non-business purposes. The strength of the social networks makes the borrowers pay back the loans without legal pressure. Schemes like this have been attempted in Nigeria (called “esusu”), in Ghana (called “susu”), in Senegal (called “tontines”) and in Kenya (Achua et al, 1999, and Harper, 1984). These schemes are for starting businesses, not growing them. Moreover, they probably don’t work as well in African communities as they do in Asian communities. For example, Achua et al (1999) found that in Cameroon these mutual assistance schemes, called “nyangi” locally, suffered from loan delinquency problems, which traditionally were supposed to be prevented by feelings of “solemn duty” towards these schemes.

## **Political and Economic Factors and Business Growth**

It was stated in an earlier section that a popular approach to promoting entrepreneurship in sub-Saharan Africa has been turning over state-owned enterprises (SOEs) to the private sector. This privatization policy was to be the thrust of economic liberalization that the international finance community (foreign aid donor countries, the World bank, and the IMF) was urging Africa and other developing regions to adopt. Economic liberalization policies, collectively known as Structural Adjustment Program (SAP), were supposed to give a boost to economic growth and economic development by increasing competition and, therefore, improving the efficiency of resource allocation. SAP included privatization, reduction or elimination of subsidies, elimination of price controls, elimination of restrictions on imports and foreign exchange. In many ways SAP has not worked out well for entrepreneurship. First, many state-owned enterprises (SOEs) were sold to foreigners, often in cahoots with government officials. Those not sold to foreigners went to the few already well-to-do local businessmen, often based upon less than transparent procedures. It is not unusual to find a chain of hotels, formerly owned by an SOE, now owned by a well-known family with good political connections. New

competition against businesses formerly under SOEs is often not encouraged. Under these circumstances some African governments have not even enunciated any small business/entrepreneurship policy, such as is the case in Namibia (Frese et al., 2002). Even where governments have proclaimed small

business/entrepreneurship policies, such policies have not been implemented aggressively. This has often led to accusations of empty government rhetoric towards small business and entrepreneurship.

Economic liberalization, always followed by currency devaluation, has resulted in a flood of cheap imports into many African countries. One can even find crafts representing African themes, e.g., a Kenyan tribal dance, made in Taiwan. The budding African entrepreneur has no chance to compete with imports of this kind. Economic liberalization aimed at encouraging African producers to sell abroad in the developed countries. Potential exports to developed countries include products of light industries such as textiles and leather products. African countries would have to enter stiff competition with Asian and Latin American countries which currently dominate export markets in the U.S. and other developed countries. This domination has been facilitated by the establishment of strategic alliances with large retailers, such as Wal-Mart. A nascent African entrepreneur is not likely to aggressively go after export markets because of his or her lack of knowledge of what sells well overseas. "While [African business owners] have some idea of African ...tastes, they are largely ignorant of what consumers like in developed countries" (Fafchamps, 1994). In addition, export markets in developed countries are probably inaccessible to imports of low quality, produced with very traditional methods. Some developed countries, especially the EU, and the U.S., have shown interest to increase imports from sub-Saharan Africa. The Clinton administration, with the urging from the increasingly vocal African-American economic and political community, engineered the African Growth and Opportunity Act (AGOA) through congress. The legislation exempts certain African imports from import tariffs. The challenge for African leaders is to exploit this opportunity to further the growth needs of small entrepreneurs. Also, African leaders should investigate the methods used by Asian governments to develop export markets for small businesses in their countries.

SAP eliminated controls on bank interest rates and commodity prices and subsidies on bank loans and manufactured products (e.g., corn flour). As a result, small businesses, including those started by people laid off due to SAP, faced new hardships including stiffer bank interest rates and soaring prices for raw materials, especially as a consequence of devaluation. Combined, these two situations created a working capital crunch. It is this situation that has resulted in the growing interest in micro finance, following the successful experience of the Grameen bank in Bangladesh. Many African countries have seen a rapid growth of microfinance activities in recent years. In most cases there has been foreign donor (mostly non government organization' such as Catholic Charities) involvement and often with active donor supervision. Despite the growth of the microfinance activities in African countries, there is still a serious shortage of working capital for small entrepreneurs. Several African countries are still investigating ways of promoting further expansion of microfinance institutions. A balance must be found between maintaining the independence and informality of these institutions and imposing enough government oversight so that the small depositors of these institutions are protected from fraud. Traditional banking requirements such as collateralization of loans do not work for microfinance situations (Satta 2004). A major challenge that faces efforts to regulate microfinance activities in any country is the many forms in which microfinance activities occur. For example, now the term microfinance covers even revolving savings and credit societies, traditionally free from governmental regulation.

SAP eliminated government control in many sectors of the economy. However, it didn't do away with government regulation on economic activities altogether. Because government no longer has control over state-owned enterprises, whose operations often generated revenues to support public expenditures (e.g., education, roads, and the military), government must now impose more taxes on the private business sector. Moreover, licensing avenues need not only to be increased, but licensing fees must rise. These consequences of SAP have major implications for business survival and growth. High licensing fees and taxes on business, income or sales, never do any good for an individual business entity (i.e., not as a member of society). High taxes always encourage tax avoidance (which is legal) and tax evasion (which is illegal). It is common to exempt very small businesses from certain taxes and legal requirements. In the U.S many laws do not apply to businesses with less than 10 employees, for example the Americans With Disabilities Act. In many states in the U.S. business sales under \$100 do not attract sales tax. It is conceivable for a shrewd businessman can keep his business below the legal threshold in order to avoid paying taxes or buying licenses. This is all legal. However, the bigger problem for legal enforcement is the business man who evades compliance with laws and gets away with it

because he knows that he is too small to be caught. Many entrepreneurs in sub-Saharan Africa take this advantage of being small. In a survey of 87 Namibian entrepreneurs who were interviewed by Frese et al (1994) an entire 29 of them were not “registered.” Small business size confers cost advantages, legal or illegal, to business owners. As such business growth, by size and sales, can be seen as involving certain opportunity costs. So, an African business owner can rationally choose and they often choose to stay small, and in the so-called “informal sector.”

Businesses which are strategically kept small or in the informal sector, pose difficult problems for those entrusted with small business and entrepreneurship development responsibilities. There is the practical matter of reaching businesses of this nature in order to help them grow past the informal sector. At the present time almost all government-backed programs aimed at promoting entrepreneurship require registration, requiring information such as address, ownership, and products of the business. Among the many problems cited for the low or total lack of effectiveness of entrepreneurship training programs is that those programs do not reach enough of those engaged in entrepreneurial activities. Most sub-Saharan countries have had entrepreneurship training programs, some for over thirty years. Kenya’s Industrial Estates program and Uganda’s Management Training and Advisory Center have existed since the late 1960s. In both of these cases as well as most of the cases of training in other African countries, there has been active involvement of foreign donors, including United States Aid for International Development (USAID), International Labor Organization (ILO) and United Nations Development Program (UNDP). Entrepreneurship training has long been seen as one of the major non-controversial tools for African governments that wanted to be seen as taking a “strategic interventionist approach” (O’Neal and Viljoen, 2001) to promoting entrepreneurial development. But according to most observers entrepreneurial training has not yet created a truly broad-based entrepreneurial class, capable of abating the influx of people into urban centers or reducing the growing gap between rich and poor.

Most researchers on African entrepreneurship believe that the training programs in African countries been both less in quantity and different in content than what is needed (Wallace, 1999). The training has overwhelmingly been urban center-based. The training is often given by people not familiar with the actual needs of African entrepreneurs. The technology involved in the training, such as that provided in industrial estates has tended to be beyond what graduates of industrial estates can afford to buy and use. In most cases, there hasn’t been after-training follow up services. Consequently, there is no effort made to assess the effectiveness of the training, beyond asking attendees to fill out “happy sheets” (where the attendee is asked questions such as “Did you enjoy the training?”). And following SAP, attendees of most government-backed training had to pay fees, creating new recruitment problems. In earlier times most training was not only free, but attendees received stipends for attendance or were promised financial assistance upon completion of training.

## **Summary and Conclusions**

There is a growing worldwide interest in entrepreneurship and small business. Even in already highly entrepreneurial countries such as the United States, new economic and social forces are leading onto entrepreneurial careers. Many people are choosing business ownership instead of corporate life because corporations are restructuring and eliminating jobs at an unprecedented scale. There is no more job security in corporations. Additionally, for an increasingly independent-minded young generation, corporate life is too stifling.

In Africa, and many other areas of the third world, entrepreneurship is expected to do much more for people, especially the indigenous Africans. Entrepreneurship is expected to contribute to national development, by helping to expand the economy, to improve income distribution, and to strengthen national unity. These are monumental tasks.

Until the late 1980s, most African governments, sometimes due to colonial heritage, but oftentimes due to ideological inclination, tended to own and operate all important means of production, thus stifling private entrepreneurship. Therefore, programs to promote private entrepreneurship had to begin with economic

liberalization and the privatization of SOEs. In countries such as Tanzania, Uganda, Nigeria, Zambia, Senegal, and Ghana, governments have already privatized more than 80% of SOEs. In many privatizations, governments have taken the most pragmatic approach – selling the SOEs to the highest bidders, who often turn out to be foreign companies. In spite of all its merits, this approach does not appear to increase the involvement of the indigenous entrepreneurs in the economy. It cannot, therefore, be considered a serious effort to promote African entrepreneurship.

Nigeria, Togo, Ghana, South Africa, and several other African countries have actively sought out “small investors” in the privatizations of those SOEs that are not sold to the highest bidders. In many places, small investors have encountered problems coming up with the money to buy shares in the privatized SOEs. Encouraging or even enabling Africans to own shares in privatized SOEs helps in reducing economic concentration. But it is doubtful whether it also helps in building entrepreneurial skills.

Many Africans become entrepreneurs, sometimes backed by government programs, but oftentimes armed only with their instinct to survive. Unfortunately, only a very tiny percentage of the start-ups expand. The reasons why most start-ups do not expand are still subject to debate. Lack of capital is almost always mentioned. Additionally, several studies on micro-enterprises in Africa have indicated that maximizing profits is rarely a major motivation for their owners. “Providing for family” or merely “making a living” are mentioned much more frequently. In the context of extended families these are major obligations. A business may not be able to do more than “providing for family.” Consequently, the business may not be able to expand, since often expansion requires ploughing resources back into the business. Now, business start-ups which do not expand do not lead to economic growth, more so because some start-ups always fail. In this sense, entrepreneurship comes up a little short. African governments, and governments in other third world countries, may have to supplement the basic entrepreneurship model in order to bring about real, long term improvements in their countries.

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SECTION 13  
LEGAL/ETHICAL ISSUES & ACCOUNTING PRACTICES

2005

# Small Claims Court's Procedure for Small Claims Business Dispute

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## Abstract

Often than not, a person with a cause of action involving a small amount probably finds it even costly to pursue his or her cause of action than abandoning such cause of action. The cost involving in bringing the case to court, the involving court's papers which to a layman are difficult to draft and prepare, and further, the need to have an advocate and solicitor would accumulatively mean that it is not worth the trouble to pursue the matter since it has become 'too costly'. It is best and cheaper to simply rely on diplomacy, patient and luck in getting the money due and owing from the scrupulous guy. Though, justice that is delayed is as good as justice is being denied, but in this case, justice is not simply delayed, instead, is not seen to be done. The purpose of procedural law has always been to serve the ends of justice rather than to defeat a person's substantive rights based on technicalities unless the omission in the procedures are those that are so fundamental as to cause a miscarriage of justice. Thus, this paper attempts to look at how a plaintiff can pursue his cause of action in court where the amount is small at nominal costs, making it worth the trouble to take the matter to court against the defendant. Accordingly, it will discuss the procedures involve when making such a claim in the light of the Malaysian Subordinate Court Rules 1980.

## Introduction

There has been of late the realization that the cost of litigation in court has been unreasonable high with the result that even a plaintiff with a good cause of action finds it unaffordable, very hesitant to be drawn in, in a long drawn out battle with the defendant. The situation is made worse if the amount one intends to claim is very nominal so much so that it is no longer worth to pursue the trivial amount, and no lawyers may even want to take the case as it is no longer feasible for them considering their legal fees. There must, therefore, be a more simple and quick procedures without much fuss where one can pursue his claim or grievance, and considering the trivial sum, at nominal or negligible cost. In this regard, there are for examples, tribunals such as the Consumer Claim Tribunal established in 1999 for a claim of an amount of up to Malaysian Ringgit RM 10,000<sup>i</sup>, and the Homebuyer Claim Tribunal established in 2002 for a claim of up to RM 25,000 per cause of action<sup>ii</sup>. These tribunals can cut down formalities, and where trial is conciliatory in nature rather than adversarial. This is also evident under Industrial Relations Act 1967 in cases where a workman who feels that he has been dismissed without just cause or excuse, may make a representation under section 20 of the Act. At the conciliation stage (not the trial stage) before the Industrial Relations Officer, no lawyer is permitted to represent the workman and the employer. Similarly is the case under the tribunal for homebuyer claim under the new section 16B of the Housing Development (Control and Licensing) Act 1966 is a panacea to aggrieved buyers wishing for a cheap, speedy or easy-peasy claim proceeding, and lawyers are not allowed except where there is dire necessity or expedient to do so.<sup>iii</sup> Both the Homebuyers Claim Tribunal and the Consumers Claim Tribunals stipulate that the tribunal should give an award within sixty days from the commencement of the trial. The purpose of existence of tribunals is obvious, to cut down the crap in terms of procedures and evidence. This paper, however, focus on the Small Claims Court Procedures as provided by Order 54 (Small Claims Procedure)<sup>iv</sup> of the Subordinate Court Rules 1980 made by the Subordinate Court Rules Committee<sup>v</sup> in the exercise of its power under section 4 of the Subordinate Courts Rules Act 1955.

## Subordinate Courts

The Subordinate Courts which comprise of the Session Courts, the 1<sup>st</sup> and 2<sup>nd</sup> Class Magistrates', and not the least the Penghulu court are established under section 3 of the Subordinate Courts Act 1948. The Courts relevant with

regard to small amount of claim is the 1<sup>st</sup> and 2<sup>nd</sup> Class Magistrates whose respective civil jurisdictions are where the amount in dispute or value of the subject matter do not exceed Malaysian Ringgit 25,000<sup>vi</sup> and 3,000<sup>vii</sup>. The Penghulu (Village Chief) Court too is in a way a small claim court since it may hear and determine original proceedings of a civil nature in which the plaintiff seeks to recover a debt or liquidated demand in money, with or without interest, not exceeding Malaysian Ringgit RM 50. However, in the case of the Penghulu Courts, the parties to the dispute have to be persons of an Asian race speaking and understanding the Malay Language<sup>viii</sup>. These Courts are relevant as Order 54 rule 2 of the Subordinate Court Rules 1980 (hereinafter referred simply as `SCR 1980') provides that the amount in dispute or the value of the subject matter of the claim must not exceed Malaysian Ringgit RM 5,000<sup>ix</sup>, a sum very much lower compared to the Homebuyers Claim Tribunal and the Consumers Claim Tribunal. Off course, the amount of up to Ringgit RM 5000<sup>x</sup> is by now, it is submitted, archaic and should be increased, if I may suggest, to up to Ringgit Malaysia RM 15, 000.

## **Procedure for Commencing Proceeding**

As in all cause actions arising under any contract, the limitation period to bring an action has to be done within six years<sup>xi</sup> or the cause of action is time-barred. This must, however, be pleaded in the pleadings. The plaintiff (must be an individual person<sup>xii</sup>) when he takes up his cause of action against the defendant (is not defined, and thus not limited to an individual person, and can be any legal entity such as a Company) must state in Form 164 the amount and particulars of his claim<sup>xiii</sup>, signed or thumbprinted by the plaintiff personally<sup>xiv</sup>. 4 copies of Form 164 must be filed in the Registry, and paying the prescribed fees (Malaysian Ringgit RM 10.00<sup>xv</sup>): One copy is to be kept by the court with the three remaining returned to the plaintiff with the Court's seal so that the disputants will have their respective copy. If there are more than two defendants, then 5 copies of Form 164 should be filed in the registry, though; this is not stated in the Order. In other words, 4 copies is the requisite minimum. The Form 164 is not valid unless it has been duly perfected with the seal of the Court.<sup>xvi</sup> Form 164 is essentially an originating summons against the defendant. Service of the Form 164 with the Court's seal to the defendant can then be done by way of personal service or by prepaid registered post addressed to the defendant's last known address.<sup>xvii</sup> If it is done by personal service, it is prudent of the plaintiff to get an acknowledgement from the defendant, or the defendant's immediate family members. An affidavit of service need not be filed as that will be against the very purpose of small claims procedure to make the procedures simple and practical, more so when the litigants are mere laymen, and often than not, without lawyers to assist. This is fortified by the fact that service of the Summons by way of prepaid registered post to the defendant's last known address would be adequate – why then the need for affidavit of service when there is receipt from the postal service that the summons is posted by prepaid registered post? It should not, therefore, prevent the plaintiff from getting from the Court, a judgment in default of appearance against the defendant.

The defendant who has been duly served with Form 164 may dispute the claim by filing<sup>xviii</sup> in the court registry his defence in Form 165 in four copies within 14 days after service of the claim. The defence in Form 165 must contain particulars as to why he disputes the claim, and may also counterclaim. If the defendant counterclaims, he must state the amount and the counterclaim in the same Form. Like Form 165, Form 166 must be personally signed or thumbprinted by the Defendant, and is then to be served to the Plaintiff either by way of personal service or by prepaid registered post addressed of the Plaintiff's at the address mentioned in Form 164. The Plaintiff in turn may file a defence to the Defendant's counterclaim in Form 166, and then served the same to the Defendant.<sup>xix</sup> Order 54 rule 7 stipulates that no party in the dispute shall be represented by an advocate and solicitor except where the defendant is required by laws to be represented by an advocate and solicitor or such other authorized person. In the case of a Company, it is submitted that the authorized officer rather than an advocate should represent a Company as to have a lawyer is against the conciliation process the Court is required to adopt under this small claims procedure. Order 54 rule 7 should not, however, it is submitted, be construed to mean that an advocate and solicitor is precluded from preparing the originating papers and the pleadings for the parties. Form 164, the instructions to both the Plaintiff and the Defendant clearly allows them to consult a lawyer but at the hearing, they cannot be represented by a lawyer.

## **Pleadings**

Judgment in default of defence may be given against the defendant in Form 168 if he fails to file his defence in Form 167 by the day of the hearing date, though the Court may in its discretion adjourn the hearing to enable the defendant to file his defence. Judgment may also be given against the absent Plaintiff in Form 169 such as striking out the claim, or judgment if there is a counterclaim, and costs.<sup>xx</sup> Where the defendant in his statement of defence admits the claim, the judgment to be entered shall be in Form 170.<sup>xxi</sup> A judgment obtained in default of appearance or defence, as the case may be, may be set aside by the aggrieved party in Form 171 on such terms as the Court thinks just. The application should be made within 21 days after the service via personal service or prepaid registered post of the judgment or order, not from the day judgment was made. Service of the judgment whether via personal service or prepaid registered post has to be done by the Court,<sup>xxii</sup> not the litigants in this instance.

## **Mode of Trial: Adversarial or Conciliatory**

The mode of trial tends to be conciliatory rather than adversarial as the Court shall where possible assist the parties to effect the settlement of a case by consent.<sup>xxiii</sup> Consent Judgment shall be in Form 172.<sup>xxiv</sup> Where the parties will not settle their matters by consent, the Court may proceed to hear the case and give a decision thereon, or may adjourn the hearing to another date for final disposal.<sup>xxv</sup> The Court (not the litigants as in the adversarial trial) when it hears the case, may ask the parties for further information (further and better particulars), and in particular for a short description of the claim and the defence, as the situations warrant, if such descriptions has not been adequately supplied already earlier.<sup>xxvi</sup> This is important since the parties are layman with no legal training or expertise when drafting their pleadings. In other words, it is submitted, in small claims court, parties are not so much bound by their pleadings. The Court shall consider the documentary or other evidence, including affidavit evidence, tendered by the parties and in their presence, shall hear such oral evidence and argument, including written argument, as the parties may submit.<sup>xxvii</sup> Form 164 (the Originating Summons) instructs the defendant to bring all witnesses, books and other papers to support his defence or counterclaim. Section 2 of the Evidence Act 1950 states that the Act `shall apply to all judicial proceedings in or before any Court' and thus the Evidence Act 1950 is without doubt applicable to Small Claims Courts as these Courts are either the 2<sup>nd</sup> or 1<sup>st</sup> Class Magistrates' Courts. The Court role, it is submitted, is proactive than reactive.

Judgment obtained after a hearing shall be in Form 173.<sup>xxviii</sup> The Court may in its discretion award costs to the winner (costs shall follow the event) not exceeding Malaysian Ringgit RM 100. No costs for advocacy shall be allowed in proceedings under the Small Claims Court.<sup>xxix</sup>

## **Enforcement of Judgments and Orders**

The judgment creditor may file in Court a notice to show cause in Form 174 against the judgment debtor if there is non-compliance on the part of the judgment debtor. Service of the judgment is via personal service or prepaid registered post addressed to the defendant's last known address as required by Order 54 rule 5 (2). Within ten 10 days of its receipt the judgment debtor must comply by depositing cash or money order in the name of the judgment creditor, and in such a case, he need not appear in Court on the date stated in the notice. Otherwise, the judgment debtor must appear or faces arrest. This is akin to the procedure on Judgment Debtor Summons to examine how best the judgment can be enforced against him. Usually, a Judgment Debtor Summons procedure should be resorted before choosing the modes of enforcing the judgments. However, the purpose of Form 174 is to some extent the same. After examination, a judgment debtor who fails to comply after receipt of the judgment of the Court faces an order for writ of seizure and sale (Form 78). The Court may also allow the judgment debtor more to pay the judgment debt amount or to pay by instalments, or order the judgment debtor to be committed to prison.<sup>xxx</sup>

## Conclusion

The fill in the blank format of the Forms (Form 164, 165 & 166) and given free of charge make things easy for the Plaintiff and the Defendant to simply put in writing (most probably handwriting) what they have to say. The Court through further and better particulars can also overcome any inadequacy in the pleadings unwittingly committed by the litigants with no extra costs imposed upon the defendants if that were to result in the amendments to their pleadings. Moreover, the process is conciliatory than adversarial and the Court is required where possible to assist the parties to effect the settlement of a case by consent. `Assist' is to mean not only assisting the parties in getting their pleadings right, but should also mean that parties are constantly guided by the Magistrate all to the way to judgment, enforcement and also in terms of what evidence is or is not admissible. Surely, one should not sue another person if one is not able to bring relevant evidence to proof his claim. To allow otherwise would be an injustice. Further, the nominal filing fees of only RM 10 is undisputedly very cheap by Malaysian Courts' standard. A right that is too costly to pursue is useless. The costs and procedures have to be feasible. The Small Claims Court Procedures ensure that justice is expedited and not delayed, and equally important is, costly and fussy procedures cannot be allowed to defeat a substantive right.

## References

Contact the Author for a list of references

## End Notes

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The Forms are not in soft copy but in hardcopy and will be appended and form part of the paper.

<sup>i</sup> See section 85 and 98(1) Consumer Protection Act 1999

<sup>ii</sup> See section 16M(1) & 16(N)(2). For a discussion on Homebuyer Claim Tribunal, see (i) Tribunal Tuntutan Pembeli Rumah: Satu Mekanisme Penyelesaian Pertikaian Alternatif Dan Perbandingannya Dengan Islam (Homebuyer Claim Tribunal: An Alternative Dispute Settlement Mechanism and its Comparison with Islam) by Rahmah Ismail & Ruziah Markom – Lecturer, Law Faculty, National University of Malaysia, Bangi, Selangor (ii) A Tribunal for House Purchaser in the Revamped Housing Development (control and Licensing) Act 1966 by Associate Professor Samsar Kamar Bin Abdul Latif, Lecturer, Law Faculty, International Islamic University, Malaysia.

<sup>iii</sup> Section 16U Housing Development (Control and Licensing) Act 1966; See also section 108 Consumer Protection Act 1999

<sup>iv</sup> Subordinate cases are probably reported if there is an appeal made against the decision. Thus, small claim cases are not to be found in legal journal. See, however, the unreported case of Chelvarai a/l Erulandy v Kumar a/l Kanniah, case no. 77-11-2004-1 (Small Claims Procedure) in the Magistrate Court in Georgetown, Pulau Penang. It was a case where the Plaintiff sued the Defendant for the sum of RM 1,000 due and owing to him as holder of the cheque issued and payable to the Plaintiff by the Defendant. The cheque, however, bounced due to insufficient money in the Defendant's account.

<sup>v</sup> Its members consist of those in the legal fraternity such as Judges, Attorney-General and lawyers – see section 3 of the Subordinate Courts Rules Act 1955

<sup>vi</sup> See section 90 of the Subordinate Courts Act 1948

<sup>vii</sup> See section 92 of the Subordinate Courts Act 1948

<sup>viii</sup> See section 94 of the Subordinate Courts Act 1948

<sup>ix</sup> See the Subordinate Courts (Amendments) (No.3) Rules 1990 (PU (A) 460/ 90 s 5(b) – it was RM 3000 previously and confined only to a claim for the recovery of a debt or liquidated demand in money, and known then as `Proceedings in Second Class Magistrates' Courts'. The Subordinate Courts Amendment Rules 1993 (PU (A) 193/93) section 10, the amount was increased to RM 5,000 and also included a any claims other than a debt such as damages so long as the cumulative sum is not exceeding RM 5,000; See also Order 54 rule 12 SCR 1980

<sup>x</sup> Rules 1 to 15 of Order 54 were inserted by the Subordinate Courts (Amendment) Rules 1988 (PU (A) 67/88), Section 5

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- <sup>xi</sup> Limitation Act 1953
- <sup>xii</sup> Order 54 rule 1 SCR 1980 – However, Form 164 item (1) instruction to the Plaintiff does include a Company as well as a Firm – could have been an oversight in the Form.
- <sup>xiii</sup> Order 54 rule 3 SCR 1980
- <sup>xiv</sup> Order 54 rule 4(1) SCR 1980
- <sup>xv</sup> Form 164, item (6) on instructions to Plaintiff.
- <sup>xvi</sup> See Form 164, item (6) on Instructions to the Plaintiff
- <sup>xvii</sup> Order 54 rule 5(2) SCR 1980
- <sup>xviii</sup> Filing fees is also RM 10 – See Form 165 item (5) at the Instructions to the Defendant
- <sup>xix</sup> Order 54 rule 6 SCR 1980
- <sup>xx</sup> Order 54 rule 8 SCR 1980
- <sup>xxi</sup> Order 54 rule 9 SCR 1980
- <sup>xxii</sup> Order 54 rule 10 & 11 SCR 1980
- <sup>xxiii</sup> Order 54 rule 13(1) SCR 1980
- <sup>xxiv</sup> Order 54 rule 13(2) SCR 1980
- <sup>xxv</sup> Order 54 rule 13(3) SCR 1980
- <sup>xxvi</sup> Order 54 rule 14 (1) SCR 1980
- <sup>xxvii</sup> Order 54 rule 14(2) SCR 1980
- <sup>xxviii</sup> Order 54 rule 13(3) SCR 1980
- <sup>xxix</sup> Order 54 rule 15 SCR 1980
- <sup>xxx</sup> Order 54 rule 16 SCR 1980

# **Consumer Protection in China: An Examination of the Toshiba Notebook Case from an Australian Perspective**

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## **Abstract**

This paper is inspired by a growing concern of Chinese consumers' complaint against foreign goods since the opening up of China's market. This paper first provides a brief account of the selected incident – Toshiba Notebook case. Then the paper examines the legal issues entailed in the dispute in China. Those legal issues are then also addressed from an Australian perspective with particular reference to the major source of consumer legislation, the Trade Practices Act 1974 (TPA). Comments are also made about other implications that relate to the case in question. The last part of this paper concludes that even if Toshiba were found liable under the Australian laws, Australian consumers would be unlikely to receive a quantum of compensation that matched that of their American counterparts.

## **Introduction**

With the further opening of China's market since the country's accession to the World Trade Organization, Chinese consumers now enjoy more goods and services from foreign operators. However, the influx of foreign investment has simultaneously increased the chance of conflict between Chinese consumers and foreign enterprises. In the past few years, there has been an increasing perception amongst consumers in China that their rights have been trampled by foreign manufacturers. For example, Pioneer Pty Ltd, a Japanese-based company renowned for sound equipment, was the subject of complaints that it was not providing the same type of repair service to Chinese purchasers as it was for customers in other countries. Consumers were also angry at a Finnish mobile phone enterprise, Nokia Pty Ltd, for failing to carry out its 'three guarantee'<sup>1</sup> obligations under Chinese law. Kodak, a photonegative production company based in America, was criticized for the poor quality of its films sold in China. Vigorous protests were made against Toshiba Electronic Corporation (Toshiba), Mitsubishi Motors Corporation (Mitsubishi), and Mercedes-Benz Motors Corporation (Mercedes-Benz). Toshiba was accused of discriminating against Chinese consumers in terms of paying compensation. Mitsubishi was being criticized for its failure in disclosing certain defects of their Pajero model V31 and V33. The grievance against Mercedes-Benz turned to fury. A disgruntled consumer smashed up his car when repair service was given instead of replacement as demanded.<sup>2</sup> All these incidents reveal the tension between Chinese consumers' rights and the obligations of foreign business operators.

It is not the purpose of this paper to adjudicate these consumer disputes. Rather, this paper aims to explore the legal issues that arise from these consumer gripes. Given that most of the commentaries on these incidents were written in the Chinese language, it is also the aim of this paper to bring those commentaries to the attention of manufacturers in the western world. Another goal of this paper is to increase foreign manufacturers' awareness of the business impacts resulting from such conflicts with Chinese consumers. Since it is not within the scope of this paper to investigate all the above mentioned incidents, it has selectively focused on the Toshiba case for the purpose of discussion. The paper first provides a brief account of the incident. Then the paper examines the legal issues entailed in the dispute in China. Those legal issues are then also addressed from an Australian perspective with particular reference to the major source of consumer legislation, the Trade Practices Act 1974 (TPA). Comments are also made about other implications that relate to the case in question. The last part of the paper concludes that even if Toshiba were found liable under the Australian laws, Australian consumers would be unlikely to receive a quantum of compensation that matched that of their American counterparts.

## Toshiba Laptop Computer Dispute – A Brief Outline

In mid-2000, several consumers in China filed a lawsuit against Toshiba Electronic Corporation for a glitch found in the laptop computer they had bought. The allegation was that the notebook computers had a faulty disk drive which could cause potential loss of data. The legal action was inspired by a similar case pursued in the United States court where Toshiba paid out USD 2.1 billions to 500,000 American users as out-of court settlement. When Toshiba only offered Chinese customers free patch-up software and technical assistance to correct the potential disk drive problem instead of paying monetary compensation, the latter were very upset by the disparity in treatment. Chinese media and internet chat-rooms were immediately flooded with coverage of, and hot debate about, Toshiba's strategy toward Chinese consumer claims. Toshiba's non financial compensation policy in China was generally condemned as a form of racial discrimination and a violation of Chinese consumers' rights.

Toshiba has vigorously rejected the accusations and has claimed that their product had no major quality problem. Toshiba explained that the potential disk drive error could cause data loss only when the computer ran multiple programs simultaneously. They claimed that, hitherto there had been no report of data loss experienced by its customers. Toshiba further denied that the amicable settlement in America was an admission of a major defect in the disk controller. As for the allegation of racial discrimination Toshiba defended its action by pointing out the enormous legal risk it faced in the United States. The stringent America laws, which cover potential loss and punitive damage, might subsequently oblige the company to pay a huge compensation as much as USD 9 billions.<sup>3</sup> Toshiba further declared that, apart from America, the company had not made any similar settlement with purchasers in any other part of the world, including China and Japan.<sup>4</sup> Not surprisingly, Toshiba's explanation failed to convince the laptop buyers in China. Most of them still believed that the settlement reached by Toshiba with the American users was an admission of guilt and the company should recompense consumers in China in the same way as they compensated the Americans buyers.

### Sources of Liability

The disparity between the two countries' laws was Toshiba's major argument for the differential compensation policy it applied to users in America and China. In order to verify the validity of this argument, it is necessary to find out in what way product liability could be established upon Toshiba towards Chinese consumers. Chinese commentators allege that there are relevant provisions under contract law, product liability law, and consumer law, which would provide Chinese consumers with a solid cause of action for finding Toshiba liable. These areas of law will be scrutinized in turn.

### Contract Law – Privity

Leung<sup>5</sup> argues that Toshiba has violated Article 155 of *the Contract Law of the People's Republic of China*<sup>6</sup> (the Contract Law) which provides that the goods delivered by the seller fail to conform to the quality requirement, and the buyer may claim from the seller liabilities for breach of contract in accordance with Article 111. He further argues that, by virtue of Article 111, the quality requirement could be ascertained by Article 62(1)<sup>7</sup> in the absence of express contractual terms. Regardless of the computer glitch in question, while this provision seems plausible, it is unclear from the newspaper reports or legal commentaries whether the relationship between Toshiba and the Chinese consumers is seller and buyer within the scope of the contract law. It is not customary practice that buyers contract directly with a manufacturer instead of with the downstream wholesalers or retailers. Furthermore, buyers in China require authority to import goods into the country<sup>8</sup> so it is unlikely for an individual consumer to hold such a licence. The situation is further blurred by the fact that Toshiba had a business partner in China called Legend Corporation, which provided the main contact for buyers in the country. If Legend Corporation were not an agent for Toshiba, but a wholesaler instead, a lack of privity of contract between Toshiba and the Chinese buyers may render the purport provision under the contract law not applicable. However, Article 121 states that 'one party that violates the contract because of a third party shall be liable for the breach of contract to the other party. The disputes between the said party and the third party shall be settled according to law or their agreement'. To circumvent the privity requirement and make Toshiba ultimately liable, the Chinese consumers can sue the retailer/wholesaler for its contractual breach under Article 155, and let the retailer/wholesaler to settle its dispute with Toshiba by virtue of Article 121.

In Australia, the legal technicality of privity under contract theory can be overcome by Division 2A of Part V of the TPA. The said Division is designed to allow consumers to sue manufacturers for damages even when there is no contract between them, provided the manufacturers have supplied the goods to an intermediary who re-supplies them to the consumers. Thus, in Australia, consumers can resort to Section 74D in Division 2A for seeking compensation from Toshiba by reason of its failure to provide goods of merchantable quality. Furthermore, Division 2A has explicitly held manufacturer accountable for its product in the end even though consumers opt to sue seller for breaching the implied terms of their contract. It is because under S74H manufacturer is obliged to indemnify the seller for the compensation recovered by consumers.

#### **Product Liability Law**

It is alleged that product liability law is another avenue whereby Chinese consumers may seek legal redress. The principal product quality legislation, namely *the Product Quality Law of the People's Republic of China*<sup>9</sup> (the Product Quality Law), provides compensation for a consumer who incurs loss because the goods supplied fail to correspond to the described quality or are defective. In addition to the principal statute, provisions that confer on consumers a remedial right in the case of defective or substandard product can be found in the Law of *the People's Republic of China on the Protection of Consumer's Rights and Interests*<sup>10</sup> (the Consumer Law) and *the General Principles of Civil Law of the People's Republic of China*<sup>11</sup> (the Civil Law). Article 35 of *the Consumer Law* states that if defective product caused physical injury or property loss to consumers or users, they can claim against seller or manufacturer for compensation. Furthermore, Article 122 of *the Civil Law* imposes liability on manufacturer and seller if substandard goods have caused property damage or physical injury to others.

Under the Chinese laws, there are two key aspects of product attribute which allow redress, that is, product with a defect or product non-conforming to specified requirements or standards. Article 46 of *the Product Quality Law* defines the term 'defect' as 'an unreasonable danger in a product, which danger threatens personal safety or another's property';<sup>12</sup> and also provides that 'where a product is governed by the State or industry standards for safeguarding health and safety of persons or the safety of property, the term 'defect' shall also mean noncompliance of such standards'.<sup>13</sup> The technical problem of the disk drive may not fall into the first limb of the definition given that the probability of the disk error was low as Toshiba claimed.<sup>14</sup> Whether the disk drive flaw would be regarded as noncompliance with the specify standard, if any, and therefore caught by the second limb of the definition, is by no means clear as the computers in question had never been sent to the relevant authority in China for examination of their standard compliance. Furthermore, it has not been indicated from the various reported materials that there is a mandatory standard applicable to this case.

The Australian law also describes 'defective goods'. Section 75AC of Part VA of the TPA defines the term 'defective goods' as 'goods having a defect if their safety is not such as persons generally are entitled to expect'. Apparently, Part VA of the Act is more concerned with goods which are unsafe or dangerous rather than goods with unsatisfactory quality.<sup>15</sup> Though Section 75AC broadly defines the phrase 'having a defect' by including failure to comply with the government mandatory standard, the related standards refer only to the safety aspects of the products. Furthermore, *the Explanatory Memorandum to the Trade Practices Amendment Bill 1992* (the Explanatory Memorandum) has stated that a 'small statistical chance of injury associated with them does not of itself mean that they are defective'.<sup>16</sup> *The Explanatory Memorandum* would be in Toshiba's favor, assuming as the company has claimed, that the chance of disk error was low and there had been no report of damage.

#### **Misleading and Deceptive Conduct**

Article 49<sup>17</sup> of *the Consumer Law* suggests that deception is an alternative ground of action. Does Toshiba's failure to disclose the computer glitch constitute a deceiving act within the scope of relevant Chinese laws? Provisions governing deceptive conduct can be found in *the Civil Law*,<sup>18</sup> *the Contract Law*<sup>19</sup> and *the Consumer Law*<sup>20</sup> legislations. However, each statute is silent as to the definition of the crucial term 'deceptive'. Tung states that 'deceptive' means when one party 'intentionally fabricates or distorts the facts, or intentionally conceals the truth, which consequently led others to act upon it erroneously'.<sup>21</sup> Tung's explanation coincides with Article 67 of *the People's Supreme Court's Opinions for Issues relating to the Implementation of the Civil Law*,<sup>22</sup> which specifies that misleading conduct occurs when a party deliberately conveys untrue information, or conceals the truth on purpose, and as a result causes others to make a wrong decision. According to academic and judicial interpretation, the element of 'intention' is the crucial ingredient for establishing misleading and deceptive conduct. Besides, the

relevant provisions would only be breached if someone has actually been misled. Therefore, in order to win the lawsuit, Chinese consumers would need to prove that Toshiba has distorted the facts about the computer glitch, or concealed the defect with intent.

It should be noted Toshiba has always denied that the technical problem of the computer drive was a defect giving rise to a legal obligation to warn its customers. Despite its knowledge of the potential disk problem for more than 10 years, Toshiba alleges that at all times it believed that was not an issue as severance problem was unlikely to arise and there was no report of damage.<sup>23</sup> Whether this decade-long knowledge of the potential flaw in these circumstances would be sufficient to constitute a deliberate and fraudulent concealment needs to await a Chinese judicial decision.

Section 52<sup>24</sup> of the TPA prohibits 'misleading and deceptive' conduct 'in trade or commerce' in broad and general term. It is aimed at ascertaining whether the conduct is misleading or deceptive rather than whether the conduct has actually misled anyone unless damages is the remedy sought. In other words, if injunction or corrective advertisement is the preferable remedy, consumers only have to prove the conduct complained of is likely to mislead and deceive. Accordingly, Section 52 covers a wider ambit of conducts than its Chinese counterpart. Furthermore, Section 52 generally does not require intent on the part of the representator. Thus, Toshiba's intentional non-disclosure of the computer glitch becomes irrelevant. What is relevant is whether Toshiba's conduct of non-disclosure is actually misleading or capable of misleading the public at large with respect to the type of remedy sought.

Nevertheless, for the purpose of Section 52, 'conduct' is defined by Section 4(2) of TPA to include doing or refraining from doing an act. Despite the broad statutory definition, court interpretation<sup>25</sup> has narrowed down the meaning of 'conduct' to 'an act that abstained from doing something deliberately'. Hence, failure to disclose information due to carelessness or unawareness of its importance does not satisfy the meaning of conduct under Section 4(2) for the breach of Section 52.<sup>26</sup> Chinese scholars also do not consider 'mistake'<sup>27</sup> or 'omission'<sup>28</sup> in disseminating information as deceptive conduct because it lacks the required intent for concealing the truth. Thus, Toshiba's silence about the computer disk information due to its belief of trivial to alert consumers of the potential problem may save it from the contravention of Section 52.

#### **Silence Amounts to Misleading Conduct**

Yet failure to speak is not totally immune from being a possible case of misleading and deceptive conduct in both Australian and Chinese laws. Chinese law takes the viewpoint that an act of silence is considered misleading or deceptive where there is a duty of disclosure<sup>29</sup> and the duty could arise from a contractual relationship or from trade custom.<sup>30</sup> The narrow scope which gives rise to such a duty would impose difficulty on the Chinese consumers due to their lack of privity with Toshiba and lack of established trade custom by reason of the short history of market economy in the country. If there is a duty to reveal relevant facts,<sup>31</sup> silence could be treated differently in Australia too. However, recent Australian case law has focused on the effect and purpose of the impugned conduct rather than the duty of disclosure. Subsequently a flexible approach of 'reasonable expectation of disclosure'<sup>32</sup> is adopted. Thus, whether Toshiba withholding information about the computer glitch can be regarded as conduct of the proscribed character would depend on Australian consumers' success in passing the 'reasonable expectation of disclosure' test.

#### **Right to Information**

The Chinese Consumers Association argues that the consumers' right to information was infringed because Toshiba did not adequately notify users in China of the possible computer glitch in the Chinese language; and only posted a warning notice in Toshiba's website after the Chinese media had extensively reported the matter.<sup>33</sup> Decrees that require product labeling in the Chinese language can be found in *the Product Liability Law*<sup>34</sup> and *the Product Label Marking Provisions*<sup>35</sup> with respect to specifications, ingredients, grades, names and quantities of its major constituents and so forth of the product. *The Consumer Law*<sup>36</sup> has stipulated business operators' obligations to present true product information. Though the provision does not specify Chinese language should be used in the presentation, it is implied.

*The Product Liability Law* further imposes on producers an obligation to clearly indicate flaws found in their products. 'Flaw' is defined as product which 'does not possess good quality, or fails to comply with the stipulated standard, or fails to correspond to the product specification or product quality by sample; but it has no

unreasonable danger which threatens personal safety or property damage'.<sup>37</sup> *The Consumer Law* has gone further in conferring on consumers the right to be informed of the true nature of the product bought or used, or the service acquired.<sup>38</sup> Parallel to this right is the obligation<sup>39</sup> of business operators to notify the relevant authority or consumers when the product or service is found to have a serious flaw which may inflict harm to person or property despite the product or service being used in a correct way. When consumers suffer from such a breach, they can either sue the seller or the producer.<sup>40</sup> Although the obligation under *the Consumer Law* is narrowly restricted to serious flaws rather than to a general notion of faulty in *the Product Liability Law*, no actual harm is required for the violation. Therefore, Chinese consumers might have a case for infringement of their rights to information if the elements of those pertinent stipulations from *the Consumer law*, *the Product Liability Law* and *the Product Label Marking Provisions* were able to be satisfied.

Furnishing product information is also a statutory obligation for producers in Australia. Section 65D(2) of the TPA calls for disclosure of product particulars relating to performance, composition, contents, design, construction, finish and packaging and so on but only if the regulations so required. However this product information standard disclosure usually applies to hazardous products which may expose consumers to risk of physical injury, and that is not the case in Toshiba. Apart from Section 65D(2), product information is generally overseen by Section 52 and Section 53, and there is no specific provision within the Act governing product labeling. Since Section 52 has already been discussed, the following examination is for the applicability of Section 53 to the case in question. Section 53 includes eleven specific prohibitory subsections against false representation in the supply of goods and services. Section 53(a) specifically prohibits certain attributes of goods or services to be falsely represented. Such attributes include standard, value, quality, grade, composition, style and mode, and the good's history. As the term 'representation' or 'represent' has been given a wide meaning, it encompasses a variety of actions and behaviors. Thus, if Toshiba's concealment of the computer glitch is regarded as a false representation of the quality of the goods, the company might have to face a fine of up to \$1.1 million and monetary claim from consumers as Section 53 attracts both criminal and civil liability.

## Compensation

### Onus of Proof

Establishing a cause of action for compensation raises the subject of evidential proving. According to the general rule of evidence in civil proceedings in China, the burden of proof rests on the party who brings up the issues.<sup>41</sup> However, under *the Stipulations relating to the law of evidence in civil procedures* (the Stipulation)<sup>42</sup> emanated by the People's Supreme Court, when a defective product has caused physical injury to a person, the onus of proof is reversed. The manufacturer bears the burden of proving goods are not defective instead of the consumers having to prove they are. Leung, a researcher at the Chinese Academy of Social Sciences, also states that Article 41 of *the Consumer Law* has deemed a manufacturer liable until it can prove the contrary, thus the onus of proving liability moves from claimant to manufacturer.<sup>43</sup> However, *the Stipulation* is silent on the situation when the consumer opts to sue the seller instead of the manufacturer in accordance with *the Product Liability Law*.<sup>44</sup> Furthermore, *the Stipulation* fails to clarify who has the onus of adducing evidence in the case of substandard goods<sup>45</sup> rather than defective ones. Finally, *the Stipulation* seems to confine its application to the case where injury is inflicted on a person rather than on property. Thus, if this proposition is correct, the obligation of attesting liability still remains<sup>46</sup> with the consumers in the Toshiba case.

Similar to its Chinese counterpart, in Australia the common law principle of burden of proof for civil proceedings is that the person who asserts the matter, has to bear the onus of proving each essential element of that matter. This is particularly pertinent for the case regarding rights of action against manufacturer by virtue of Part V, Division 2A of the TPA. Division 2A imposes obligations on a manufacturer in respect of unsuitability, description, merchantable quality, sample, repair, and warranty of its goods. Though Division 2A provides compensation<sup>47</sup> if there is a breach of these statutory obligations, it has no mention of whom owe the onus of proving. Thus, the common law principle of proving the dispute would apply to Australian consumers if Div 2A is the appropriate cause of action against Toshiba.

Certain provisions of the TPA have reversed the onus of proof for allegation of defective goods. In accordance with S75AD to S75AG, once the plaintiff can show a prima facie case for defective product, the defendant must disprove them to escape liability. Nevertheless, as previously discussed, the Toshiba case does not seem to fall within the scope of defective goods under Part VA of the TPA.

#### **Actual Loss versus Potential Loss**

Although Toshiba defends the case by alleging zero damage reports, the damages claimed by the American users were potential loss of data. The American remedial system does allow money compensation for potential loss that is the possibility of harm caused by defective product. However, potential loss is not recognized in China.<sup>48</sup> Nevertheless, Hong<sup>49</sup> cites Article 49 of *the Consumer Law* in an attempt to circumvent the requirement of actual loss usually required for seeking compensation under the Chinese remedial regime. Article 49 states that if a business operator that practises fraud in providing a commodity or a service at the consumer's request, the business operator is obliged to increase the amount of compensation *for loss* incurred by the consumer; and the increment shall be double the price of the commodity or service. He argues that actual loss is not the prerequisite for contravention of Article 49 as the objective of awarding punitive damage Article 49 is to punish deceitful acts. He further argues that had actual loss been the prerequisite for the section and consumers required proving it, the principle purpose of the provision would be defeated. Thus, Hong considers 'loss' is deemed to exist if there is commission of a fraudulent act. With respect, if Hong's argument is correct, it is perplexing why the phrase 'loss incurred' is used in the provision. Furthermore, from the obtainable sources of information, it is indecisive whether Toshiba has practised fraud or not.

A literal interpretation of Articles 35 and 122 of *the Consumer Law* and *the Civil Law* respectively seems to suggest that only actual and proven loss is recoverable. Kwok,<sup>50</sup> an official from the China Consumer Association, supports this proposition. He states that the potential defect of a product that has not yet caused actual harm is insufficient to bring about the application of *the Product Quality Law* for seeking remedy. Professor Dong from Beijing's China People's University is of the same view. He asserts that the manufacturer is liable to pay compensation to consumers only if the latter can show damage caused by the product.<sup>51</sup> Wu, professor at the Remin University of China, concurs with this assertion. He believes that there is no legal ground for an action in respect of potential damage in China because the country has inherited the continental legal system under which compensation is based on tangible loss.<sup>52</sup> However, Wang, who also comes from the Remin University, disagrees with his peers. Wang argues that suing for compensation for substandard product does not require loss actually suffered. He argues that a substandard product does not always cause harm. As long as there is evidence that the product fails to meet the necessary standard, liability will arise under *the Contract Law*. Professor Wang's argument could be right if Toshiba's computer glitch is considered as inferior rendering the goods 'substandard' rather than 'defective'; and also if there is a contract to which the Chinese consumers are privy thus activating *the Contract Law*.

In Australia, Section 82 is the major compensation provision for the contravention of Part IVA and Part V of the TPA. If the present case falls into the scope of unconscionable conduct,<sup>53</sup> misleading conduct<sup>54</sup> or false representation,<sup>55</sup> compensation could be sought under Section 82. However, the section would only confer rights on a person to recover damages for the breach of the Act if the person has suffered 'loss or damage' by reason of the contravention. Courts'<sup>56</sup> interpretation of the phrase 'loss or damage' refer to actual loss or damages that has occurred and not potential or likely damage. Nevertheless, potential or likely damage is recoverable under Section 87. But the word 'likely' renders the section only applicable to cases where there is 'real chance or possibility' of loss and damage suffered by the plaintiff.<sup>57</sup> Although Toshiba claims that the company has received no complaints of data corruption or loss from customers,<sup>58</sup> a computer designer indicates that the disk problem is most likely to occur when a computer is running many tasks simultaneously and Toshiba admits this.<sup>59</sup> Thus, the prerequisite for Section 87 could be found in the Toshiba case. Consequently, the Australian court could be empowered to make compensatory relief for consumers under Section 87 by reason that Toshiba had contravened a provision in Part V of the Act. Section 87(2) sets out a non-exhaustive list of court orders including order directing the repair of goods. Nonetheless, it is worth noting that the relief granted under Section 87 is what the court considers appropriate to compensate the applicant's damage and does not need to redress the whole of the applicant's loss. Thus, the Australian court may, 'as it thinks fit', make order directing repair of goods rather than ordering refund which in effect is what Toshiba has offered to the Chinese consumers.

### **Exemplary Damages**

Assuming consumers are able to establish a right of recovery against Toshiba, another question would be what quantum of damages they would be able to obtain. The remedial system in China is based on the theory of recompensing for actual loss suffered.<sup>60</sup> Hence the Chinese remedial regime does not generally recognize exemplary damage.<sup>61</sup> However, it is submitted<sup>62</sup> that Article 49 of *the Consumer Law* does produce an effect comparable to exemplary damages. Article 49 states that a business operator who practises fraud in providing a commodity or a service at the consumer's request, is obliged to increase the amount of compensation for loss incurred by the consumer; and the increment shall be the price of the commodity or service. However, Article 49 might not carry out the predominant purpose of exemplary damages, which is deterrence. The penalty is statutory limited to twice the amount of the original price, instead of being decided by the court in accordance with the background of the defendant, may fall short of producing the deterring effect. Article 49 has set two limitations for Chinese consumers. Firstly, the section restricts its application to deceptive cases.<sup>63</sup> Secondly, as stated above, compensation is capped at twice the amount of the purchase price. Thus, even though Chinese consumers may be able to satisfy the requirement of deception, the quantum of exemplary damage they receive from Toshiba would be far below the amount received by American standards.

It is generally conceded that exemplary damages as punishing persons who commit socially undesirable acts and deterring the commission of those acts in the future instead of compensating the innocent party.<sup>64</sup> The major criterion for awarding exemplary damages is 'contumelious disregard' in the conduct of the wrongdoer.<sup>65</sup> Though exemplary damages are awardable in Australia, it is limited by Section 82 and Section 87 of the TPA. Given the concepts of Section 82 and Section 87 are compensatory, the nature of exemplary damages is beyond the reach of the concepts. Furthermore, Australian courts have taken a conventional view of not awarding exemplary damages for breach of contract.<sup>66</sup> It is partly because the object of damages in contract is to place the plaintiff in the position in which he would have been had the contract been performed rather than to punish the wrongdoer. Therefore, it is unlikely that consumers would get exemplary damage from an Australian court.

## **Other Implications**

### **Economic Rationale**

It has been alleged that there is an economic rationale behind Toshiba's decision in offering a different set of remedies to Chinese users. At the time of the dispute, Toshiba had sold to China only 200,000 sets of notebook computers out of its total sales volume of 15 millions.<sup>67</sup> Since exemplary damage are not generally available under the Chinese remedial regime, if Toshiba lost the legal battle, the quantum of compensation that it might have to pay would not be as much as in the United States. Because Toshiba would be able to meet the consumers' claim in China, it is more prepared to confront Chinese consumers in court.

### **Court Administrative Rationale**

An administrative factor has strengthened Toshiba's affordability of litigation in China. There is no precedent for successful group litigation in Chinese courts at the time of the incident.<sup>68</sup> Chinese courts are still at an early stage in handling claims brought by large numbers of claimants. In 1991, Articles 54 and 55 of *the Civil Procedure Code*<sup>69</sup> introduced a representative action for collaborative litigants in China. Similar to American's class action procedures, representative action in China requires certification.<sup>70</sup> This is a vital procedure for Chinese consumers as the viability of their claim is dependant on whether the court accepts to hear them as class action. However, the lack of infrastructure in handling the insurmountable managerial matters could be an explanation why Chinese Courts reject such applications.<sup>71</sup> Indeed, denial of class certification on the ground of administrative difficulties is not uncommon in other jurisdictions, like America and Australia.<sup>72</sup> So, breaking the 'never victorious' record of a class action in Chinese courts is another legal obstacle consumers have to overcome.

### **Who is the Final Winner?**

Though Toshiba seems to be holding the upper hand position in this legal dispute and was able to avoid paying monetary compensation in China, it did pay a price for the incident. Toshiba offered Chinese consumers technical assistance in installing remedial software for free and suffered from a number of adverse market impacts. After the incident hit the airwaves with speed and volume, consumers' confidence in the trustworthiness of the Toshiba

computer laptop, as well as the company's other products, was undermined. It has also been reported that some shops in China intended to take Toshiba products off their shelves as a form of protest.<sup>73</sup> Considerable damage was caused to the goodwill that Toshiba had cultivated in the country.<sup>74</sup> Consequently, there was a fall in its sale volume in the China market<sup>75</sup> and a drop of its share price on the stock exchange.<sup>76</sup> In addition, a substantial portion of senior managerial time had been lost in handling the case.<sup>77</sup> In the end only Toshiba know whether its company is better off financially by offering two different compensation schemes for users in different countries. In assessing legal risk, Toshiba and other business operators should be aware that a penalty for repeat violators of the relevant Chinese law is cancellation of import licence.

#### **Should the Chinese Remedial Regime Fully Recognize Exemplary Damages?**

Most Chinese commentators assert that if China had comprehensive remedial system, consumers' rights and interests would have been better safeguarded. Therefore, it has been suggested that opening up the availability of exemplary damages has become necessary for consumer protection in China. However, the suggestion of using exemplary damages as a mechanism has been objected to as counter-productive to product liability victims for the following reasons. Firstly, China's financial system is not yet a full-fledged market economy. Extending the scope of product liability and imposing heavier penalties would minimize the chance of survival and competition for new manufacturers.<sup>78</sup> As a consequence, consumers would possibly find less choice in the market. Besides, exemplary damages should be applied without discrimination to both local and foreigner manufacturers in case of violation. It is doubtful whether local manufacturers could afford to pay the same huge amount of penalty as their foreigner counterparts when convicted.<sup>79</sup> Nevertheless, this uncertainty could be resolved by the court in considering penalty taking into account the defendant's wealth and deciding on an amount sufficient to bring about a deterrence effect.

Secondly, during the country's transition to a market economy, product quality is still a serious issue in China. Protecting consumers from shoddy goods by means of exemplary damages could send many local producers into bankruptcy.<sup>80</sup> In the end consumers would suffer from having lesser quality but affordable goods. Furthermore, some consumers might participate in the local production as employees and would be doubly jeopardized if heavy damages awarded which led to the close down of local business.

Thirdly, with the ever increasing manufacturers' liability under tort and statute, such as *the Trade Practices Act* in Australia, there is a universal use of insurance by potential defendants to cover themselves against losses arising out of their defective products. As the insurance industry has started to develop in China, manufacturers are able to cover the risk of heavy quantum of compensation by way of insurance if exemplary damages are going to be awarded by the Chinese remedial system. However, shifting the penalty liability to their insurer<sup>81</sup> would possibly moderate or defeat the punishing and deterring effect of exemplary damage for the violators in question. Furthermore, insurance premiums increase production costs and undermine the competitiveness of those manufacturers. Worse than that, if the market situation allowed, the premium fee would translate into higher retail prices, which consumers ultimately have to pay. Thus, awarding exemplary damages might not be the penicillin for the product liability plague in China.

Finally, exemplary damages, which are non-compensatory, have been criticized as providing a 'windfall' for claimants. While the correctness of this argument is yet to be tested in the Chinese remedial system, the exemplary damages imposed by Article 49 of *the Consumer Law* have already aroused a controversial incident called the 'Wang Hai phenomenon' in China. Wang Hai, a contentious fake goods fighter, relies on the remedial provision that provides a double refund for fake commodities, and employs a buy-and-sue technique to make a profit. Wang Hei's techniques of money making have been followed and have spurred a tidal wave of fake goods fighting across the country.

The debatable legal issues in the Wang Hai case aside,<sup>82</sup> the phenomenon supports the argument that exemplary damages do incite people to sue. Indeed, Toshiba's settlement is a good example. Apart from motivating Chinese consumers, Toshiba's settlement has also led to four copycat lawsuits filed against various computer companies<sup>83</sup> in America. Apparently, litigants are excited by the thought of the compensation that they could get out of the desirable settlement or favorable judgment. However, litigants may not be aware of the fact that winning the case on legal grounds and getting the actual compensation are separate issues. This is because American lawyers are allowed to charge their legal fees on a contingent basis. Thus, in most consumer class actions only the lawyers gain much financially.<sup>84</sup> This phenomenon is well illustrated by Toshiba's case. Out of the USD 2.1 billions

settlement fund, various law firms, which filed the suit pocketed USD 145.7 millions. The owners of Toshiba computers received only discounted coupons (USD 100) for buying other Toshiba's products, or cash payment of few hundred dollars and free software patches to repair the alleged defect.<sup>85</sup> In fact, not all American users were excited by the amount of compensation and there was USD 350 millions left over in the settlement funds.<sup>86</sup> In Australia, contingent fee contracts between lawyer and client are basically illegal. But a conditional costs arrangement allows an Australian lawyer to collect a normal fee plus an extra charge of up to 25 percent of that fee if the case is successful. Nevertheless, an Australian losing party can be required to pay the legal costs of his opponent, unlike American litigants who usually pay their own costs. Whether a contingent fee is allowed in China is unclear. But the dual questions of who is going to foot the legal bill and the legal fee of other party if the claim fails would make Chinese consumers carefully consider their action before filing the lawsuit. Apart from using insurance to manage legal risk and provided other market factors allow, the financial bill resulting from litigation or from settlement might sooner or later be met by other innocent consumers who pay a higher price for the product but are not a beneficiary of the exemplary damages. Thus litigation is not a panacea for the product quality problem in China nor does it advance the Chinese consumer's wellbeing as a whole.

## Conclusion

It is evident that the laws of a jurisdiction determine the outcome of a legal issue in a particular case. However, rules and regulations are just one of the contributing factors. Other features in a legal environment, for example, the judicial background, the due process of law, and policy issues in a court decision have to be taken into account.<sup>87</sup> Furthermore, the non-legal aspects of a country, such as the availability of a national health care system, which provides collateral sources for seeking compensation, also play an important role in litigation outcome. Above all, economic rationale often outweighs legal consideration in shaping a company's decision about a commercial dispute.

Under Australian laws, Toshiba may have breached the manufacturer's obligation of merchantability. There could also be a possible claim against Toshiba for contravening Sections 52 and 53 of *the Trade Practices Act*. With respect to Toshiba's liability for defective goods under Part VA of the Act, it does not seem to be the appropriate base. Leaving aside the issue of the evidential burden, even if Australian consumers could successfully prove Toshiba breached a statutory obligation, exemplary damages are not available for such contravention. Furthermore exemplary damages are not awardable for violating Sections 52 or 53 though aggravated damages might be granted to consumers. In addition, exemplary damages are inconsistent with the compensatory theory of *the Trade Practices Act*. Thus Australian consumers would be unlikely to experience the same kind of dispute outcome, which was shaped by some specific aspects of the United States legal system, as their American counterparts.

It is hoped that this analysis of the Toshiba case through the perspective of Australian laws will provide Chinese consumers an objective viewpoint of the matter. The Toshiba case shows an immediate need for upgrading the present Chinese consumer protection system, which could be achieved by drawing experience from its counterparts. The Trade Practices Act in Australia provides a special experience that would be a good reference point for China. Only a constant review of the safeguard mechanisms would be able to protect adequately consumers' rights and interests in China in the multifaceted market situation after the country's entry to the World Trade Organization.

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## End Notes

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<sup>1</sup>The 'three guarantee' obligations means traders are responsible for providing repair, replacement, and refund service in case of defective goods. Such obligations are embedded in several consumer protection legislations including the national consumer law, the product quality law, and the contract law.

<sup>2</sup>Informed sources from various Chinese newspapers.

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<sup>6</sup>*The Contract Law of the People's Republic of China* 1999.

<sup>7</sup>Article 62 states 'If the relevant terms of a contract are unclear, nor can it be determined according to the provisions of Section 61, the provisions below shall be applied'. Article 62(1) states 'if quality requirements are unclear, the State standards or trade standards shall be applied; if there are no State standards or trade standards, generally held standards or specific standards in conformity with the purpose of the contract shall be applied'.

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- <sup>17</sup>Article 49 states that if a business operator that practices fraud in providing a commodity or a service at the consumer's request, the business operator is obliged to increase the amount of compensation *for loss* incurred by the consumer; and the increment shall be double the price of the commodity or service.
- <sup>18</sup>Section 58.
- <sup>19</sup>Section 52 (1) and Section 54 (2).
- <sup>20</sup>Section 49.
- <sup>21</sup>Tung, Yau, *China Civil law Study – General Principle of Civil Law*, People's Republic of China Procuratorate University Press, p238.
- <sup>22</sup>Issued by the People's Supreme Court 1990.
- <sup>23</sup>Pasztor and Landers, p3.
- <sup>24</sup>Trade Practices Act, Section 52 (1) states 'A corporation shall not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive'.
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# The Tests to Determine ‘Constructive Dismissal’: The Malaysian Legal Perspectives

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## Abstract

In so far as Malaysia is concerned, there are certain tests adopted by the courts to determine whether the acts of the employer tantamount to constructive dismissal or not. These tests are, - the ‘Contract Test’ and the ‘Just and Equitable Test or Unreasonable Test’. However, courts in Malaysia have yet to resolve which one of these tests is the most prevailing and practical one? There are cases that apply the former test whilst in others the latter test is applied. This paper attempts to define what are these tests, their origins, rationale and applications in cases involving constructive dismissal and to forward suggestions to improve and suggest the best test in determining ‘constructive dismissal’ in Malaysia.

## Introduction

The termination and dismissal of workers has always been a matter of great anxiety and inevitably poses a common equitable and legal problem to the employer on the one part and the employees on the other. To minimize and prevent any inequality and injustice in industrial relations and to secure industrial harmony, certain law and regulation have been established. It is trite law that legal rules not only enumerate rights and duties of the employer/employee before and during the course of employment, but it also seeks to provide provisions governing the process of its termination and dismissal. This transparency between employer and employee ensure that disputes arising will be dealt with objectively and in accordance with equity and justice. There are various ‘ever kept recurring’ issues in employment law which deserve special attention. But one of the most important issues to reckon with is ‘indirect dismissal’ or what is commonly known as the ‘constructive dismissal’. This is because the law relating to this type of dismissal, as far as the legal position in Malaysia is concerned, is to a certain extent still shrouded in uncertainty. In this type of dismissal, normally, it does not require any express words or manifest act on part of the employer which could understandably denote dismissal. In fact, the occurrence of such dismissal may not be realized by the employee concerned for it rarely involve any clear and unequivocal sign that shows there was in fact ‘a dismissal’, unless guided by the principles of law.

The only statutory provision in Malaysia which deals with the right of the employee where there is a dismissal is the notorious section 20(1) of the Industrial Relations Act 1967 (‘IRA 1967’). This section provides that a workman who believes that his employer has dismissed him without just cause or excuse may make representations in writing to the Director General of the Industrial Relation for reinstatement or other relief. However, the provision does not mention and define ‘constructive dismissal’ and its applicable test.

## Objectives

The purpose of this paper is as follows:

- 1) To identify the applicable tests applied by the courts in Malaysia in determining ‘constructive dismissal’; and,
- 2) To examine the tests, their origins, rationale and applicability, and to then propose the best test that the court should apply.

## Importance of Research

It is understood that in the era of globalization, cross border transactions and trades play an indispensable phenomenon. The purpose of international trades today, apart from seeking new potential markets and customers, it is argued, eventually they would maximize the shareholders' profits. When involving trades, apart from funds, good management and incentives given, legal rules and regulations too play a fundamental part. For otherwise, investors would not dare to venture into any business undertaking unless the law available, in a given country, is clear and would guarantee and protect their rights. Any failure and incompetence of the law to tackle and govern certain issues, could cause substantial pecuniary and financial chaos. This would, of course, mar, in the future years, the confidence of the investors on that country. One of the areas of the law which have a direct connection to this respect is the 'labour or employment law'. It contains rules and regulations governing the relationship between employer and employees. On part of the employees, they would expect that they would get the payment as promised and other legal and equitable rights, in return to the efforts they rendered in compliance with the will of the employers during the course of their employment. Thus, if the law and rules concerning labour or employment law in any given country is insufficient nor alien to the recognized international practice or so handicapped to be a set of law which could attract the confidence of the investors, the investors, who would normally be the prospective employers, would hesitate and reluctant to invest or channel any funds into that country. Thus, the law of constructive dismissal, which this paper seeks to address and expound, would be a relevant knowledge to the prospective investors who are interested to invest in Malaysia. This is because, deficiency on this branch of labour law, would to a certain extent, affect their plans and corporate strategy in the later period of their operation in Malaysia.

## Approach

This paper will be divided into several parts. First, the author will explain the meaning of constructive dismissal as proposed and formed by the learned judges and jurists. This would be followed by probing into the tests that have been adopted and applied by the courts in Malaysia in relation to constructive dismissal through decided cases. The final part would be the commentaries on the principles adopted, and thereafter, the authors' conclusion.

## The Meaning of Constructive Dismissal

The relevant laws in Malaysia dealing with employment do not provide any statutory definition as to what 'constructive dismissal' actually is. The IRA 1967, the Act which specifically deals with industrial relations and employment<sup>i</sup>, for example, has no such definition. According to certain quarters, the labelling of 'constructive dismissal' is rather confusing and should not be used at all.<sup>ii</sup> It is thought that 'constructive dismissal' is also a type of 'dismissal'. The IRA 1967 merely provides that pursuant to its section 20(1), a workman or employee is entitled for reinstatement of his former job if he has been dismissed 'without just cause or excuse' by his employer. It does not specifically states 'constructive dismissal'. The full provision of this section worth reproducing reads as follows:

*'Where a workman, irrespective of whether he is a member of a trade union of workmen or otherwise, considers that he has been dismissed without just cause or excuse by his employer, he may make representations in writing to the Director General to be reinstated in his former employment; the representation may be filed at the office of the Director General nearest to the place of employment from which the workman was dismissed'* (the emphasize is added by the author)

According to Oxford Dictionary of Law (2000), 'constructive dismissal', literally, means 'termination of a contract of employment by an employee because his employer has shown that he does not intend to be bound by some essential terms of the contract, and although the employee has resigned, he has the same right to apply to an employment tribunal as one who has been unfairly dismissed by his employer'.

On the other hand according to Maimunah (2003), constructive dismissal is:

*where the behaviour of the management causes the employee to resign...management takes certain actions to make continued employment intolerable...the employee can consider himself as has been 'constructively dismissed'. The employer's conduct must amount to a breach of contract in order for constructive dismissal to take place.*<sup>iii</sup>

From the above suggested definitions, we can deduce that constructive dismissal is when an employee terminates his service (with or without notice) with the employer due to the employer's behaviour, action or non-action, treatment or non-treatment that expressly or impliedly shown that the employer does not intend to be bound by the contract entered into or has repudiated their contract of employment.

Section 20(1) of the IRA which states 'where a workman,...considers that he has been dismissed without just cause or excuse...', must connote the following situations:

- 1) Where the employer, manifestly, has dismissed him without any reasonable ground; or
- 2) Where the employee involuntarily or voluntarily, terminates his employment because of the conduct of the employer which caused him to be driven out of the employment. In other word, the act or conduct of the employer towards him in the course of his employment could not be accepted or borne by him any longer and the conduct of the employer has forced him to leave his employment.

The first situation, it is submitted, is a 'direct dismissal' whilst the second is an 'indirect dismissal' or 'constructive dismissal'. What it means is that the employer has at the very outset evinced an intention to dismiss the employee, subtle or otherwise, that finally would cause such employee realizes that he could no longer carry out his duty reasonably. The question then is what are the elements or guidelines that could indicate to us if there is in fact a constructive dismissal?

## **The Test To Determine Constructive Dismissal**

Based on the decided cases, there exist at present, two types of test that are being applied by courts in Malaysia to determine constructive dismissal. The tests are:

- 1) The Contract Test; and,
- 2) The Just and Equitable Test or The Unreasonable Test.

## **The General Provision Provided in IRA 1967 In Respect of The Test**

There is no statutory provision that states the above tests. However, section 20(1) of the IRA 1967 states that if an employee 'considers that he has been dismissed without just cause or excuse by his employer', he could make an application or representation to the Director General of Industrial Relations office for reinstatement of his position. This provision does not provide the meaning of 'dismissed' and 'without just cause or excuse'. The meaning of these words and sentences depend on the interpretation of the court. According to Quah Swee Khoon v Sime Darby Bhd<sup>iv</sup>, 'dismissal' means 'the employee had been driven out of employment'. The question follows that whether the reasons that had caused 'the employee being driven out of the employment' were made with 'just cause or excuse or not'? If not then, that employee is entitled under section 20(1) of the IRA 1967 to apply for his reinstatement.

There are several types of dismissal.<sup>v</sup> These include - direct dismissal, termination of contract of employment, forced resignation and constructive dismissal. However, these dismissal as required by section 20(1) of the IRA 1967 above, shall only be exercised with 'just cause or excuse' by the employer, failing which the court would nullify the termination.

## **The Contract Test**

The proponent jurists of this test advocate that there should exist a contractual relationship between the employer and employee. What is meant by contract of employment is that, the employee is entitled to be rewarded and to receive appropriate consideration or treatment from the employer in return to the exercise of his consideration or treatment for the benefits of his employer under the contract of employment. In other words, each party has duty and

obligation to one another as prescribed in the terms and conditions of that contract. In employment law, once the terms and conditions of the contract of employment have been breached, this may lead to the determination of the contract, and as usually the case is, the termination or dismissal of the employee or the worker. This termination is either at the request of the employer or the employee himself opts to terminate it due to the failure of the employer to comply with the said terms and conditions of the contract.

Further, could constructive dismissal occur when there is a breach of an implied terms? What is the 'implied terms' then in the contract of employment?. The answer lies in the ratio of Lord Browne-Wilkinson J in Woods v WM Car Services (Petersborough) Ltd<sup>vi</sup> case. He said 'the implied term or the contract of employment requires the employer:

*'...not to conduct himself in a manner calculated or likely to destroy or seriously damage the relationship of confidence and trust between the employer and employee.*

*It is to be emphasized that this implied term of contract is an overriding obligation independent of, and in addition to, the literal terms of contract. Furthermore, the breach of this implied obligation of trust and confidence may consist of a series of acts and incidents, some them quite trivial which cumulatively amount to a repudiatory conduct by the employer'*

To illustrate this, take for example, if the express term of the contract of employment states that the employee is entitled to get certain payment from the employer on the completion of certain works and it happens that the employer fails to pay that certain payment, and this finally lead to the termination of the employee concerned. Well, this would certainly lead to a 'constructive dismissal' because the employer had breached the contract to make the certain payment as promised. On the other hand, if in case there is an implied term that the employee is guaranteed to receive certain rate of bonus when the profits of the business reaches certain amount, yet the employer only gave the bonus to certain employees, neglecting others out of spite, could it be said that there was a constructive dismissal against the employee who did not received it, if at the end of the day, because of this ill treatment and unfair practice, the employee concerned believed himself to have been driven out of the employment? In this case, it is humbly opined that under this circumstance it would amount to constructive dismissal. Cases relevant on this point are Palmanor Ltd v Cedron<sup>vii</sup> and Syarikat Sports Toto (M) Sdn Bhd v Akmal a/l V A Lazarus, Negeri Sembilan<sup>viii</sup>.

Based on this definition, the test to be applied in determining the 'constructive dismissal' is the contract test. The judge in Wong Chee Hong's case applying the contract test held that the appellant had been constructively dismissed by the employer when instead of obtaining reward for the good work he had done, he was demoted from being the Head of one of the employer company's department to a mere cinema manager, a position which he had held some fifteen years ago as a junior executive, albeit on the same terms and conditions of service. Such relegation of responsibility with its consequence humiliation and frustration and loss of estimation amongst his fellow employees made it impossible for the appellant to carry on being employed under the employer company's organization. In other words, he had been driven out of his employment and been dismissed.

Some judges have laid down specific guidelines to further explain the test. This guideline states that in order to ensure that a claim of constructive dismissal succeeds under the contract test, two limbs of the contract test must be present:<sup>ix</sup>

*Firstly, did the employer's conduct amount to a breach of the contract of employment going to the root of the contract or had he evinced an intention no longer to be bound by the contract, thereby entitling the workman to resign?*

*Secondly, did the workman make up his mind and act at the appropriate point in time soon after the conduct of which he had complained had taken place?*

Other example of cases that followed the principle in Wong Chee Hong that apply the 'contract test' are Southern Bank Bhd v Ng Keng Lian & Anor<sup>x</sup>, Anwar bin Abdul Rahim v Bayer (M) Sdn Bhd<sup>xi</sup>, Christoph Hoelzl v Langkawi Island Resort Sdn Bhd<sup>xii</sup>, Rudy Darius Ogous v Ming Court Hotel<sup>xiii</sup>, Michael Brian Davis v Microsoft (M) Sdn. Bhd<sup>xiv</sup>, Tan Cheng Hing v Federal Metal Printing Sdn Bhd<sup>xv</sup>, Kumpulan Jerai Sdn Bhd, Rengam v National Union of Plantation Workers<sup>xvi</sup>, Holiday Inn, Kuching v Lee Chai Siok Elizabeth<sup>xvii</sup>, Campbell Cheong Chan (M) Sdn Bhd v Ayyawoo a/l Nadeson<sup>xviii</sup>.

## The Just and Equitable Test (or Unreasonable Test)

### Origin of the Test

This test was based on the statutory provision contained in section 20(1) of the IRA 1967. This section requires that every dismissal or termination employment shall only be exercised by the employer on just cause or excuse. Failure to comply with this requirement will mean that the act of dismissing and terminating the employee to be null and void. The employee in question may lodge a complaint and make representation to the Director General of the Industrial Relation for reinstatement. This test has been applied in several cases.

In Goon Kwee Phoy v J & P Coats (M) Bhd.<sup>xxix</sup>, the appellant's employment had been terminated by the respondent Company on the ground of redundancy. However, this ground had not been proven and it was evident that it was merely a fallacy. So, the appellant applied to the Director General of Industrial Relation that the act of the respondent amounting to dismissal without just cause and excuse. Pursuant to section 20(1) of the IRA, if the dismissal was made without just cause and excuse, the appellant was entitled to reinstatement. The DG later referred to the Minister and then the Minister referred to Industrial Court for determination. The Industrial Court found that the ground given by the respondent Company was fallacious and held that this had amounted to dismissal without just cause and excuse. The respondent company appealed to the High Court. The High Court agreed that there was no redundancy. However, the High Court allowed the appeal of the respondent on the ground that the respondent Company was merely exercising its right under the contract of employment in terminating the appellant by giving one month's notice and an ex-gratia payment of six months' notice by way of retrenchment benefit in recognition of the appellant's past services. The respondent company's act was justified as being derived from the terms of the contract, however fallacious the ground of termination on the appellant would be. Dissatisfied with this finding, the appellant appealed to the Federal Court. The Federal Court held that irrespective whether there was a termination of employment in the exercise of their right under the contract or an outright dismissal, such act of the respondent must and ought to have been carried out only with just cause and excuse. This is required under section 20(1) of the IRA 1967. By terminating the appellant's employment based not on just cause and excuse, ie by giving reason that there was a redundancy which in fact there was none in order to convince the appellant to accept the termination of employment would certainly tantamount to dismissal without just cause and excuse, which warrant the court to grant compensation in lieu of reinstatement to the appellant.

Other cases that followed the principle of unreasonable test (just and equitable test) are Supercomal Wire & Cable Sdn Bhd v Anjana Devi A/P Satiavelu and Ors<sup>xxx</sup> (even though it is doubtful whether this case would fall under 'unreasonable test' as the judge in this case had applied 'the rule against natural justice'), in upholding that the appellant employer had exercised discrimination in dismissing the respondents employee, thereby had breached the rule against natural justice when it only chose the respondents to face the allegation of misconduct and even though there were also others too involved in such misconduct), Dr A Dutt v Assunta Hospital<sup>xxxi</sup>, and Ang Beng Teik v Pan Global Textile Bhd, Penang (except when the case was brought to the Federal Court, where the Federal Court had applied contract test).<sup>xxii</sup>

### Conclusion: Which Test Is The Most Appropriate and Should Be Adopted by Courts?

It is apparent that the prevailing test applied and preferred by the apex court on constructive dismissal in Malaysia is the contract test. This is because, apart from Wong Chee Hong and the like, there is a recent Federal Court decision of Ang Beng Teik that reversed the decision of Gopal Sri Ram JCA who had applied the 'just and equitable test' in the Court of Appeal. However, Gopal Sri Ram JCA<sup>xxiii</sup>, B Lobo<sup>xxiv</sup> and Farid Sufian Shuaib<sup>xxv</sup> argued that the 'just and equitable test' should be preferred on the grounds that:<sup>xxvi</sup>

- 1) Before Wong Chee Hong there was Goon Kwee Phoy, a case decided by the Supreme Court which applied the statutory 'just cause and excuse' test. Thus, in Wong Chee Hong, the Federal Court should not have applied the 'the contract test' as applied in England in Western Excavating. In Goon Kwee Phoy, the Supreme Court had examined in a considerable length about 'termination' and 'dismissal' and eventually accepted the 'just and equitable' statutory test as the test to determine constructive dismissal;

- 2) It follows that, according to the principle of 'just cause and excuse', the court should look into the alleged act of 'constructive dismissal' on part of the employer and then determine whether the dismissal (which could include 'constructive dismissal') is with just cause or excuse or not;
- 3) In addition, section 30(5) IRA 1967 imposes certain principle to the court to settle industrial dispute 'in accordance with equity, good conscience and the substantial merits of the case without regard to technicalities and legal form'. Thus, it means that the court should apply the principle of equity and not restricting itself to the common law principle such as the contract test as propounded by Lord Denning in Western Excavating; and,
- 4) The test 'just and equitable' should be preferred because it is in congruent with section 17(A) of the Interpretation Act of 1948 and 1967: in the interpretation of a provision of the Act, a construction that would promote the purpose or object of the underlying Act shall be preferred to a construction that would not promote that purpose or object. It is submitted that the purpose of the IRA 1967 and employment law as practised in Malaysia is to preserve industrial harmony based on equity and good conscience as heralded by section 30(5) of the IRA 1967.

It is also in the authors' view that, 'just and equitable test' would be the best test in determining 'constructive dismissal'. Apart from the above grounds, the author would like to emphasize the limitation imposed by section 3 (1) of the Civil Law Act 1956. Pursuant to this section 3(1)(a), in West Malaysia, the law that shall be applied are the written laws in force in Malaysia except where there is none, then the common law of England and the rules of equity as administered in England as at 7 April 1956. On the other hand, section 3 (1) (a) and (b) provide that in the case of Sabah and Sarawak, apart from common law and rules of equity, the civil courts shall apply, provided that there is no written law, the statutes of general application as administered or in force in England. The application of these sources of law is that only those that are practised and applied in England as at 1st December 1951 for Sabah, and as at 12th December 1949 for Sarawak. However, the application of these sources of law is subject to the proviso 'so far only as the circumstances of the States of Malaysia and their respective inhabitants permit and subject to such qualifications as local circumstances render necessary'.

Thus, if we see the grounds of judgment made under Wong Chee Hong, it is clear that these grounds were based on the law decided in Western Excavating, a case that had been decided after 7<sup>th</sup> April, 1956. It follows that the principle of law on the contract test applicable to determine constructive dismissal should not have been applicable in Malaysia because of this statutory prohibition. However, it can be argued that what has been laid down by the IRA 1967 in particular section 20(1) does not specifically mention the test to be applied, and this lacuna warrant the Courts to refer to the law as applied in England. However, as Western Excavating was decided after 7<sup>th</sup> April 1956, whatever principles of law adopted in that case including the contract test propounded by Lord Denning MR would not be applicable here in Malaysia. It should be remembered that before Western Excavating, particularly as at 7<sup>th</sup> April 1956, neither in England was there any definite applicable test to determine 'constructive dismissal'. Thus, Malaysian Courts, it is submitted, have erred when they regard the 'contract test' as the conclusive law as at 7<sup>th</sup> April 1956 applicable in England.

Finally, in the event the above contention and grounds is still not enough to settle such a problem on the appropriate test applicable, it is suggested that certain amendments be made on the IRA 1967. These amendments must necessarily give a definition of 'constructive dismissal' as well the statutory test to determine it.<sup>xxvii</sup>

### **Comments on Recent Case – Ang Beng Teik**

It needs no reiteration that a definite test applicable in relation to constructive dismissal is very essential or there would be 'chaos'. For example, in Ang Beng Teik, the Industrial Court decided that the test is the 'just and equitable'. However, when this case went to the High Court, the judge reversed and applied the contract test instead. Aggrieved with the decision, the appellant later appealed to the Court of Appeal and the Court of Appeal applied the 'just and equitable' test which resulted in his appeal being allowed. Then, at the Supreme Court, it was reversed again, and restored the 'contract' test adopted by the High Court. The Supreme Court held that the refusal of the appellant to take up the demoted position offered by the respondent employer tantamount to breach of his contract of

employment, which warrant the employer to dismiss him. However, the court did not consider the chain of events leading to his refusal to accept the offer ie the facts or events that had caused him to be driven out of the employment. The dissatisfaction of the appellant was that the domestic inquiry held, had not called all witnesses and evidence before convicting him. This inquiry certainly, contended by the appellant, was formed by the respondent company as a means to victimize him in order to get rid of him. Accordingly this 'chain of event' had influenced him not to take up the offered demoted position. Now, let us examine certain issues below, in order to see the problem faced by the judicial minds in Ang Beng Teik clearer.

- 1) Can we say that at the time of holding the first domestic inquiry, the respondent employer/company had breached the contract, in that the appellant employee alleged that the inquiry did not conduct itself properly? We could say so as there was proof that showed that there was indeed acts of victimization on part of the respondent employer/company towards the appellant employee during the course of domestic inquiry conducted by the respondent employer/company;
- 2) Can we say that the domestic inquiry undertaken by the respondent employer/company was made without just cause and excuse? Similarly, we would agree as there was proof of unjustified acts of the respondent employer/company during the domestic inquiry; and,
- 3) Can we say that when the appellant employee refused to accept the demoted position because of his frustration with the finding of the domestic inquiry which finally found that there were several 'baseless' and 'unfounded' charges which finally had been unduly proven, made against him, there was a breach of contract on his part or had he by so acting shown unreasonable attitude warranting his dismissal? In this respect, it is difficult to say that he had breached the contract. This is because he considered that he had been victimized in the domestic inquiry held earlier and that by so refusing to accept the offer, he indicated his protest against the offer. However, this very non-complying act of the appellant employee had persuaded the Supreme Court to hold that he was the one who had breached the contract and that the dismissal by the respondent employer/company was justified. This is because, at the time of his objection and refusal to report for duty to the demoted position offered, he was still an employee, and that during the course of employment he is under a contractual obligation to comply with the instruction of the respondent employer/company. Thus, by not complying with the instruction of the respondent employer/company, he had breached the contract of employment and that the dismissal by the respondent employer/company was justified. On the other hand, before the case came to the Supreme Court, the Court of Appeal had a contrary view on this point. According to the Court of Appeal, the act of the appellant employee by not complying with the instruction of the respondent employer/company was justified. The refusal by the appellant to take up the demoted position offered indicated his objection against the victimization done by the respondent employer/company during the domestic inquiry. Accordingly, the Court of Appeal held that 'the chain of events' occurred, prior to the objection by the employee to take up the demoted post, should be looked at and be taken into consideration, *viz* - the act of victimization (committed by the domestic inquiry held earlier) done by the respondent employer/company was made without just cause and excuse and this had finally caused the appellant employee to be driven out of his employment. In the result, the Court of Appeal held that the constructive dismissal committed (the domestic inquiry process was conducted without hearing all evidence and witnesses, which was detrimental to the appellant's case) by the respondent employer/company was done without just cause or excuse. And that because of this victimization the appellant employee refused to accept the demoted position offered by the respondent employer/company.

Thus, it is important for Court in Malaysia to put a stop to this state of uncertainty and tussle. Again, as reasoned out above, the preferred test would be the just and equitable test. If this test is applied, then Ang Beng Teik (the appellant) would win the case.

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- [31] Woods v WM Car Service (Peterborough) Ltd (1981) IRLR, 347.

## End Notes

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<sup>i</sup> See also Professor V Anataraman, *Malaysian Industrial Relations: The Doctrine of Constructive Dismissal*, (2000) 3 MLJ xvii, especially at page lviii.

<sup>ii</sup> In Ang Beng Teik v Pan Global Textiles Bhd (Penang) (1996) 3 MLJ, 137, Gopal Sri Ram JCA said that constructive dismissal was a convenient label; there is no magic in the word. In Amanah Buttler (M) Sdn. Bhd v Yike Chee Wah (1997) 2 CLJ 79, Gopal Sri Ram JCA added that 'no useful purpose will be served by saying 'constructive dismissal' is a mere label. It does nothing to clarify matters; on other hand, it causes confusions. It is better that the phrase be not resorted to at all'.

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- iii Maimumah Aminuddin, *Malaysian Industrial Relations and Employment Law*, 4<sup>th</sup> Edition, 2004, Mc Graw Hill, p. 5.
- iv (2000) 2 MLJ. Per Gopal Sri Ram at page 611.
- v See generally Farid Sufian Shuaib, *Dismissal Without Just Cause or Excuse: The Interpretation of The Word 'Dismissed' Under S. 20 of The Industrial Relations Act 1967*, (1998) 4 MLJ xlv.
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- viii (1998) 1 ILR 79. See also Professor V Anataraman, *Malaysian Industrial Relations: The Doctrine of Constructive Dismissal*, (2000) 3 MLJ, p. li, lii and liii.
- ix MPH Bookstores Sdn Bhd v Lim Jit Seng (1987) ILR June. 585.
- x (2002) 5 MLJ, 553. In this case, the court specifically referred to contract test to determine constructive dismissal and not to unreasonable test. Faiza Tamby Chik J said at page 571”  
‘And, in determining questions on a constructive dismissal...common law principles, viz, the contract test as propounded in *Wong Chee Hong's* case, are to be applied’.
- xi (1998) 2 MLJ, 599. Mahadev Shankar CJA said, at page 605 – 606:  
‘It has been repeatedly held by our courts that the proper approach in deciding whether constructive dismissal has taken place is not to ask oneself whether the employer’s conduct was unfair or unreasonable (the unreasonableness test) but whether ‘the conduct of the employer was such that the employer was guilty of a breach going to the root of the contract or whether he has evinced an intention no longer to be bound by the contract’
- xii (1998) 6 MLJ, 162. Mohd Noor Ahmad J said, at page 168:  
‘With regard to the impugned clause in the new job, descriptions, I am of the view that it does not detract from the original terms of employment which could have been spelt out at the inception of the employment had there been a written job description as the amendments are within the ambit of the functions and duties of the general manager. Therefore, the defendant cannot be said to be guilty of a breach which goes to the root of the contract or had evinced an intention no longer to be bound by it.’
- xiii (2000) 6 MLJ, 780. KC Vohrah J said, at page 786:  
‘The issuance of the show cause letter was part and parcel of the investigation, and it also gave him an opportunity to explain the alleged misconduct for alleged breach of the house rules, and I cannot understand how it could have constituted an act of victimization. The show cause letter cannot amount to a fundamental breach of the contract of employment’
- xiv (2000) 3 MLJ 669. Faiza Tamby Chik J said at page 675:  
‘Therefore the tests for establishing constructive dismissal is two pronged, namely:  
a) is there a breach of contract, or...’
- xv (1999) 3 MLJ, 564. Where Faiza Tamby Chik J, said at page 573:  
‘Therefore I am of opinion that it was incumbent upon the applicant to establish that the respondents committed a fundamental breach which went to the very root of the applicant’s contract’
- xvi (1996) 3 MLJ, 221. Low Hop Bing, J said at page 238:  
‘Therefore, in a termination of service under section 15(2) there is no requirement to have an enquiry as the employee is deemed to have broken his contract:...’
- xvii (1992) 1 MLJ.
- xviii (1998) 7 MLJ 10.
- xix (1981) 2 MLJ 129.
- xx (2003) 6 MLJ 729.
- xxi (1981) 1 MLJ 304.
- xxii (1996) 3 MLJ, 137.

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<sup>xxiii</sup> See his judgment in Ang Beng Teik v Pan Global Textile Bhd, Penang (1996) 3 MLJ, 137.

<sup>xxiv</sup> See article entitled: *Whither The Test For Unjust 'Constructive' Dismissal in Malaysia?* (1999) 3 MLJ xc.

<sup>xxv</sup> See his article entitled: *Dismissal Without Just Cause or Excuse: Interpretation of The Word 'Dismissed' Under Section 20 of the Industrial Relations Act 1967*, (1998), 4 MLJ xliv.

<sup>xxvi</sup> See Professor V Anantaraman, *Malaysian Industrial Relations: The Doctrine of Constructive Dismissal*, (2000) 3 MLJ, p. lv and lvi

<sup>xxvii</sup> See Professor V Anantaraman, *Malaysian Industrial Relations: The Doctrine of Constructive Dismissal*, (2000) 3 MLJ, p. lx.

# Does the Global Transition Imply Some New Accounting Techniques?

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## Abstract

One of the primary goals the management has to reach is the constant growth of a firm. The other important goal the management is interested in is reaching such a firm's business performance that guaranties the stability of their employment. In times of global change when things tend to change unexpectedly, many managers have found out some semilegal or even illegal ways of how to preserve their jobs, by altering the financial statements. When we talk about aggressive accounting, earnings management, window dressing, income smoothing, fraudulent financial reporting, we are talking about those techniques which enable management to make the firm's business performance look better than it is in reality. In this article I try to describe some techniques of the creative accounting and I will also try to answer the question if the (new) Slovene accounting standards allow or not the use of »creativity« in the accounting.

## Definitions

The term creative accounting can be adequately described by several definitions. They are all very similar, although quite some differences can be noticed. Four authors from Great Britain gave four definitions of creative accounting. Regarding the fact that all four of them come from different backgrounds, all the definitions are very interesting, since they focus on the same topic from different perspectives (based on Amat, Blake and Dowds: *The Ethics of Creative Accounting*; Economics Working Paper; December 1999)

Ian Griffiths, a business journalist says, that companies in their reports include financial results, which do not give a true and fair picture of a company's business performance but are rather adapted in the light of the pursued goals. The business performance data, which is published by companies is based on adequately adapted, modified, readjusted information. The published information is a variation of variations and can be even far from the initially entered information shown in the books of a company. Such method of disclosing information on a company's business performance is called creative accounting.

The accountant Michael Janson claims that accounting actually means the harmonization of different methods of assessing and solving conflicts between different approaches in publishing results of financial and other business transactions. Since the generally accepted accounting principles (GAAP) are flexible and provide a great deal of freedom regarding valuation, this gives a rather large window of opportunity for manipulations, frauds and bias in disclosing business performance. According to Janson these »subjective-based« accounting methods are nothing else than creative accounting.

Based on years of experience Terry Smith, a financial analyst, came to the conclusion that the growth which was shown by companies in the eighties was a mere consequence of the flexible application of accounting rules and adhering to its principles not actual economic growth.

Kaman Naser defines creative accounting as a process of changing financial statements from what they actually should be into such which show what is intended to be disclosed. This is achieved by bending some existing rules or by dropping others. Naser also emphasises that the accounting systems in Anglo-Saxon countries is explicitly prone to manipulations through applying techniques of creative accounting, since they are governed by general principles and guidelines (GAAP) rather than strict rules, as this is the case under the conservative European approach. This way companies, which find themselves in similar economic environments, show different business results, which is exclusively due to a different application of accounting rules and principles, governed by GAAP.

This way, three areas can be defined, since due to the flexibility of GAAP there is quite some room for creative accounting approaches. This refers in particular to the following:

1. Inventory cost determination,

2. Software revenue recognition,
3. Defining the goodwill amortization period

### Inventory Cost Determination

Inventory cost determination provides quite some room for selecting the valuation method. Accounting principles offer quite a number of methods, while the selection of a particular method affects the results shown in the balance sheet as well as the profit and loss account. The most commonly used methods are FIFO, LIFO and average price method. In times of changing purchase prices of inventory items, each method has a different effect on the business result (through cost) as well as the balance sheet, through the total inventory value.

If the LIFO and FIFO methods are compared against each other it can be established that under unchangeable conditions the FIFO method has a more favourable impact on the business result, since the cost of goods used in working process is valued according to the first incurred cost (which is usually lower), while the inventory itself is valued at higher, more recent prices.

Let's illustrate this with a short example:

1. Purchase 100 units of material at 90 MU
2. Purchase 150 units at 100 MU
3. Expenditure (cost of goods used in working process) 110 units
4. Purchase 50 units at 110 MU
5. Expenditure 60 units

### FIFO Method

(1) Transaction	(2) Pcs.	(3) Price (MU)	(4) Purchase value (MU)	(5) Expenditure (MU)	(5) Stock value (MU)
1. Purchase	100	90	9.000,00		9.000,00
2. Purchase	150	100	15.000,00		24.000,00
3. Expenditure	100	90		9.000,00	15.000,00
	10	100		1.000,00	14.000,00
4. Purchase	50	110	5.500,00		19.500,00
5. Expenditure	40	100		4.000,00	4.000,00
<b>TOTAL</b>			<b>29.500,00</b>	<b>14.000,00</b>	<b>14.500,00</b>

According to the FIFO method, the expenditure is calculated as 14.000,00 MU, while the final stock is valued at 14.500,00 MU.

### LIFO Method

(1) Transaction	(2) Pcs.	(3) Price (MU)	(4) Purchase value (MU)	(5) Expenditure (MU)	(5) Stock value (MU)
1. Purchase	100	90	9.000,00		9.000,00
2. Purchase	150	100	15.000,00		24.000,00
3. Expenditure	110	100		11.000,00	13.000,00
4. Purchase	50	110	5.500,00		18.500,00
5. Expenditure	40	110		4.400,00	14.100,00
<b>TOTAL</b>			<b>29.500,00</b>	<b>15.400,00</b>	<b>14.100,00</b>

According to the LIFO method, the cost of goods used in working process is calculated as 15.400,00 MU, while the final stock is valued at 14.100,00 MU.

With all other data remaining unchanged, the cost of goods used in working process according to the FIFO method is lower (by 1.400 MU), which means that while all other circumstances remain unchanged the business result will be better by 1.400 MU under the FIFO method.

Should other data remain unchanged it is also true that the stock value according to the FIFO method is higher by 400 MU (valuated according to the most recent prices).

This highly simplified example shows that by selecting a certain valuation method, the company can have a significant impact on the business result, the asset value as well as the value of capital.

GAAP provides a high level of flexibility regarding inventory cost determination. The selection depends on several factors, among them also on the fact whether the purchasing prices are stable or not, as well as the tax burdens and into which direction the business result of a company needs to be »shifted«.

#### **Software Revenue Recognition**

In the past, companies had far more freedom in recognizing software revenues, while today this field is somehow more explicitly defined. It used to happen that companies recognized such revenues at the time when this suited them best. This led for example to cases when companies recognized such revenues already in the moment when the software manual was sent out to the customer, although this may have happened even before the software was actually delivered to the customer. At the same time, it also used to happen that companies recognized their revenues even before their client has sent them a statement by which he has confirmed the receipt and acceptance of the ordered software. This way companies inflated their revenue figures, because the probability that such revenues would never materialize was quite high since the customer may not have been satisfied with the product or may have had certain additional requirements regarding the product. This would mean that the actual revenue would be lower. This field has been recently more precisely defined, since GAAP requires that the minimum condition for a company to recognize revenue is that the software has to be at least delivered to the customer. In any case, the company can act even far more conservative: it can recognize revenues even after the customer has confirmed the receipt of the software.

#### **Depreciation Period and the Useful Life of Goodwill**

In Slovenia, the subject of goodwill is dealt with by the Slovene Accounting Principle (SAS) 2. Goodwill is the surplus of the purchasing price of the acquired company over a fair value of the acquired assets, less its debts, if such a company ceases to exist as an independent legal person. The same principle also says: the »amortisable value of the intangible long-term asset is prudentially allocated across the useful life determined according to the best of knowledge. The intangible asset is amortised throughout its useful life. As a rule, goodwill is amortised over a period of 5 years, while the useful life can be, if well grounded, extended to (a maximum) period not exceeding 20 years«. As it can be seen, there is some window of opportunity for applying creative accounting methods, since the selection of the useful life of an asset is left to the assessment of the appraiser, which means that selecting an adequate useful life may have an effect on the business results of the upcoming years. If such a period is long, the amortisation cost in the individual years will be lower compared to the one if the useful life were shorter. The SAS define that goodwill is amortised over a maximum period of five years, but allow that under adequate argumentation this useful life can be extended to a maximum of twenty years. Of course, the SAS further require that every year it is necessary to verify the period and method of amortisation. If the anticipated useful life of the intangible long-term asset is different from the one based on the aforementioned principle, it is necessary to adjust the amortisation period accordingly. If the anticipated pattern of commercial benefits based on such an asset changes considerably, it is necessary to adjust the amortisation method. Such changes need to be regarded as modifications of accounting principles, which affect the calculated amortisation for the period in question and periods to come.

### **Estimated Values (Estimates)**

It is obvious that the business world is constantly undergoing change and it would be unrealistic to expect that all things could be exactly predefined and anticipated. Due to the inevitable fact that the value of certain assets, liabilities cannot be known to the last detail or at least known in advance, this calls for the use of so-called estimated values. A well-known example from practice is the valuating of long-term provisions for the warranty linked to products sold. It can be estimated what a percentage of products will be returned for repair but an exact figure cannot be known in advance. In this case it is necessary to estimate the value. Of course, when estimating value it is necessary to base such an estimate on statistical studies, data from the past and to consider all factors, which affect

the quality of the products (for example if it is known that a new machine or modern technology has been purchased, which ensures a lower percentage of imperfect products, this has to be considered when estimating such a value). When preparing such an estimate it is at the same time necessary to consider future events, which could affect the amount, required to meet the incurred liabilities. Since this involves a large amount of uncertainty, risk and incapacity of exact anticipation, there is actually a lot of room for creative approaches.

## **Why Regulations are not More Stringent?**

The aforementioned are just a few examples how it is possible by applying creative accounting techniques to shift the business result in the direction, which best suits the management. By considering the fact that the most interested for a true and fair disclosure of the business performance of a company are its stakeholders, the question arises why accounting principles allow such looseness and provide so much of a window of opportunity for creative approaches? Why the valuation methods, methods of disclosing and discussing all economic categories are not harmonized, predefined? Maybe this way the »creativity in accounting« would be eliminated making us sure that the financial statements are a true and fair picture of the business performance of the company in question.

Such a solution is impossible. In times of constant and quick changes it is impossible to expect that universal rules could be adopted, which would be beneficial to all players in the field of economy. It is impossible to require that two companies, which operate in completely different economic environments, book and disclose their business transactions in the same way. It is inevitably necessary, actually fair that it is possible that companies from different economic environments represent business transactions differently. But even if companies operate in the same economic environment this still does not mean that they will both book business transactions the same way, since there are already differences between individual companies, which call for the application of different approaches and methods.

Let's focus only on inventory cost determination. If a company applies the LIFO method, the cost of goods working process is valued according to the most recent prices, which means that they reflect a slightly more realistic picture (regarding current market prices) and so the generated financial statement reflects the current market prices. At the same time it is also true that stock is valued at lower, initial cost, which means that the values in the balance sheet are already »slightly outdated« or too low. In periods when prices increase, the LIFO method leads to positive tax effects from the aspect that the disclosed business result is lower than it would be by applying the FIFO method. Therefore, it is well understood that in periods of growing prices companies prefer the LIFO method rather than for example the FIFO one.

If it would be required that all companies use the same methodology for valuating cost this would mean that this way the existence of different economic environments, where companies operate in, would be neglected. At the same time the existence of different historical backgrounds, which caused the development of different cost valuation would also be neglected.

In the case of goodwill it can be established that the SAS are slightly more conservative in determining the useful life, since the Slovene principles anticipate that goodwill has to be amortised over a period of five years after coming into being or based on special argumentation this period may be prolonged, but may not exceed 20 years. In this respect the GAAP are far more liberal. They do not define the exact number of years, over which this intangible asset should be amortised. The argumentation to support such a liberal approach is that it is impossible to expect that all companies are likely to provide economic benefits, which arise from the acquisition of a company over the same period of time. Defining a cap on the useful life will not contribute to any more realistic financial results.

The elasticity in financial reporting will and has to exist as long as different economic environments exist where the different companies operate in. (Mulford, Comiskey, 2002, p. 26).

Of course, the possibility of a free, objective assessment not only regarding the valuation method but also selecting the accounting method may not be misemployed to attain goals by one group at the expense of the other. This elasticity has to exist in order to allow all companies to disclose the results of operations in different environments as realistic and fair as possible.

If certain accounting principles are defined only vaguely and if companies are allowed by their own assessment to apply different methods, rules... (considering specific economic conditions, where such companies operate in and considering special internal features of their own company) why is creative accounting regarded as negative? When does accounting go beyond the limitations of the framework of general rules and not staying within them? Where is the line, which separates true and fair from unfair, misleading?

## **Aggressive Application of Accounting Standards, Rules**

We can talk about aggressive accounting when this loose accounting framework is not applied for the purpose of getting a fair statement on business performance but remains a tool for tailoring/adapting accounting information with the purpose of giving a different picture from the actual one. When companies abuse their freedom given by the accounting rules and principles for the purpose of showing their business performance in a better light than otherwise, when they try to mislead a certain group or even several groups of users of accounting information (stakeholders, creditors, bank, state, employees,...), then we can definitely speak about aggressive accounting.

Examples of aggressive accounting

- Including restructuring cost (example from American practice): according to GAAP a company which restructures itself has to include the restructuring cost in the year when this restructuring took effect along with all cost which the restructuring already required and will still require (in the years to come). If the company deliberately “inflates” the restructuring cost, it shows a rather downgraded financial result compared to the one that it normally would. The consequence of such an approach is that the company in the years following the restructuring shows better business results. The aim of such approach is that the management in the years following the restructuring shows better financial results than during the years before it and thus justifies the correctness of the implemented restructuring. This measure requires that all restructuring cost in the coming years are carried over to the year when the restructuring was carried out.)
- Premature recognition of sales revenues: the company enters an agreement with a customer, which stipulates that the delivery will be made at a later date regarding the one the agreement was signed. If the company among sales revenues also recognizes those which will materialize based on the concluded agreement and considering the fact that the delivery has not been made yet, the company shows unrealistically high revenues. Hence, the shown financial result is better than it should be.
- Example of tangible assets and equipment: The management defines the useful life of an individual tangible asset. The useful life of any tangible asset depends on a) the expected physical wear; b) the expected technical obsolescence; c) the expected economic ageing and d) the expected legal and other limitation regarding its use. As the useful life of an asset the shortest among all of the specified conditions is considered. Although SAS (SAS 13.8) stipulates that among the various useful life periods it is necessary to select the shortest one there is still room for discretionary decisions by the management. The management can adjust this shortest period in such a way that it meets the required goals. If it wants to reduce the amortisation cost in an individual year thus improving the financial result, the selected useful life will be relatively long, by all means too long would the accounting rules from the standards not be violated.
- Even some expenses could be included unrightfully: if management wants to show the best financial result it will take care that the cost or expenses within a given period will be as low as possible. The financial result can be manipulated also by not recognizing cost within the period when they actually accrued, but are carried forward to the next period. Most often this happens at the end of the business year when certain cost and expenses are not booked in the year when they accrue but are carried forward to the next year. This way the financial result is improved in an incorrect way.

## Special Cases of Creative Accounting

As much as the fact that life is a cyclical process applies to the individual, where years of growth and prosperity are followed by periods of recession and slow growth, the same applies to economic growth. If this process would be illustrated by a diagram, it would be a winding curve featuring local minimums and maximums. Just the same way we could illustrate the growth of a company over a longer period of time. Steep growth at first, then slower growth towards the local peak, then a turnaround to recession, until it reaches the local minimum, where new growth is starting. The management of a company is not prone to such a sequence of events, since its task is making business and growing the company, showing a steady growth of revenues over different periods of time. Such a flow is actually welcome, since investors prefer a steady, constant flow of revenues, which reflects stability, strength and growth of a company as well as competent management. Such growth also has a psychological impact, since in the eyes of investors such a company is less risky, which is in the end reflected by a premium in the stock market price. Of course, it is also the management, which benefits from a uniform flow of earnings, particularly in cases, when their compensation depends on the business development of the company.

And in particular the strive for achieving constant growth without major oscillations is quite often the driving force for applying aggressive accounting methods. Usually the management defines a certain long-term growth rate as one of its goals and focuses its activities on achieving this rate. In years, when business is very good it can »save« a part of the revenues and carry them over to future years, when business performance will be less successful or the achieved results would be lower than anticipated. This is the so-called technique of income smoothing, by which the management tries to show a more or less stable growth of revenues.

There are several methods of how to smoothen revenues and hide profits. To confine ourselves just to a few examples, we could take the field of receivables. When it is necessary to smoothen revenues or to reduce the profit of the current year for the benefit of business results in future years, the management will take a more conservative – pessimistic approach in determining the amount of dubious or disputed receivables. The Slovene Accounting Principle 5.25 defines that receivables, which are believed not to be settled in due time or in the full amount, should be considered dubious, while if a legal proceeding has been started, they should be considered as disputed. Based on experience from previous years and expectations within a statement period, companies identify a certain percentage of their sales, a percentage of credit-based sales and then calculate an average adjustment of the amount of receivables, which are debited against adjustment expenses in connection with receivables and defines a corresponding adjustment of receivables. The amount of the dubious and disputed receivables affects the profit of the current year. If in future it should be established that the company was too pessimistic in determining the amount of such receivables, the adjustment of receivables will be reduced thus again showing corresponding revenues, which will have a positive impact on the business result.

Long-term warranty provisions for products sold, determining the useful life of tangible assets, conservative recognition of revenues – these are shown later, although in the given moment all conditions for their recognition are met - are very »suitable« for applying the technique of smoothing earnings.

In less successful years just the opposite approaches are applied: the management becomes more optimistic regarding dubious receivables, which are far fewer in such years, the management is even much more optimistic regarding the fault-rate of products sold and therefore generates less long-term provisions for the warranty for products sold, provides a new estimate about the useful life of tangible assets, which are suddenly considered to last longer, etc. The effect of such an approach on the business result is positive, which in the long run results in a more steady growth rate.

## Errors in Accounting, Discrepancy from Standards

It would be wrong if every error or discrepancy from standards would be immediately considered as a creative approach in order to conceal the truth. Drawing the line between an error and deliberate different disclosure of information lies in the intent. If the error or different approach has not been applied with the intent to play with data, non-disclosure of certain information, then we cannot and may not speak about creative accounting. To err is

human, therefore we can not expect that no errors will ever happen. If we find some, they need to be corrected and disclosed.

## **Creativity in Preparing Financial Statements**

At this place it is necessary to mention the so-called window dressing technique. This is a process of adapting financial statements with the aim of achieving the optimum financial situation on a certain date (Mathews, Perera, 1991, p. 235). Such a date is the date of drawing the balance sheet or date of taking out a loan. The balance sheet and the profit and loss account can be manipulated with instruments and measures, which are applied immediately the day before preparing the balance sheet. Due to the close link between the balance sheet and the profit and loss account, these instruments provide adverse effects. Measures which improve the financial structure of the balance sheet, make the profit and loss account look worse and vice versa.

The financial structure of the balance sheet (this is the relation between long-term assets and capital on one side and short-term assets and liabilities on the other) can be improved in several ways (Cokelc, 1993, p. 36).

Long-term liabilities can be reprogrammed, while at the same time the short-term liabilities can be converted into long-term ones. It is possible to accelerate the collection of receivables and short-term financial assets and at the same time settle due liabilities. Even the reduction of the scope of purchasing raw-materials and goods for sale or postponing the purchase of tangible assets have a favourable effect on the financial structure.

As we can see, creative accounting is not limited to merely keeping record of business transactions. Fact is that by incorrect bookkeeping of business transactions completely different, even false information may be produced, but we have to be aware that the financial statements may be set-up by pursuing the required goals despite a completely correct keeping record of business transactions. This may not be regarded as incorrect bookkeeping but rather incorrect classification of certain economic categories not only in the balance sheet but also in the profit and loss account as well as the cash-flow statement with the aim of giving incorrect information.

Profit and loss account: If the management in a certain year failed to meet the profit target from ordinary business operations it can by applying creative accounting show exactly the opposite. Among ordinary revenues it can include those which by nature are not such revenues or it can exclude certain expenses and can show them in another group of expenses. The net profit and loss of a certain period will be no different, although individual business results (from business activity, ordinary activity, out of ordinary activity) will differ.

Cash-flow statement: is also prone to a creative approach, since by deliberate incorrect classification of financial flows incorrect, even misleading information is given. Incorrect classification of financial flows between the three main groups (financial flows from ordinary business activity, investing and financing) can make the overall image of the business conduct in a certain field look a required way.

## **Reasons for Negative Application of Creative Accounting**

The most common reasons for applying creative accounting are driven by the desire for taking personal advantage and enforcing special interests.

Agent relationship between participants is established every time when one or more individuals, called principals authorise another individual or organisation, called agent, to perform for him and on his account a certain business or service. In an agent relationship it is important that the agent has the right to decide autonomously, with consequences borne directly by the principal. The problem of agency fees arises among different interest groups, most often among stakeholders and managers, stakeholders and creditors as well as stakeholders, managers and creditors.

Since the principal directly carries all the consequences of the agent's deeds it is in his interest to have his agent perform his tasks as well as possible. Among different methods how to provide incentives for the agent (in our case the manager) to perform well, thus most effectively protecting the interests of the principal (stakeholders) are also:

- Form of compensation which attracts and keeps managers, having matching interests with the ones of the stakeholders within the company,
- Manager compensation tied to performance,
- Intimidation by threatening to terminate the employment contract should the interest of the stakeholders not be protected and
- More intensive control of the performance of managers, although the cost of such control is not negligible.

Among other relations between the parties involved the relation between the accounting or auditing company as well as client of the accounting or auditing services can also be considered. Among these parties involved, no interference on their integrity, objectivity and independence should be permitted. However, in the business world we can also witness examples when despite legal autonomy between the parties there is an interaction between them (Dodge, 1993, p. 514-525):

1. Excessive dependence of the client or associated group of clients: if the amount of revenues generated by the individual party represents a considerable share of the total revenues of the accounting company, it can be asserted that there is a certain interaction between them. This is quite often the case with start-up accounting companies, which are eager to win recognition and are faced with the problem of the client's importance. If they give in to his requests, which are against the principles of fair business conduct, then we can already speak about creative accounting,
2. If the possibility of a legal case exists: if the accounting company and its client due to various reasons find themselves on opposite sides, their mutual confidence can weaken or even disappear,
3. Even after a long-year relationship the accounting company may not cross the line of consulting service. The managerial decisions are always reserved to the company management and not the accounting company. The accounting company can not and may not accept responsibility for business decisions.

Among other reasons which have an impact on applying creative accounting are also financial motives. The most widespread is the request for lowering the tax base and thus the tax burden. Within the valid legislation, the company can find the most suitable accounting solutions regarding tax base, tax rates and paying contributions. The company strives to use tax incentives, reducing the tax burdens or even postponing them for future years.

Naser (1993, p. 64-66), Mathews and Perera (1991, p. 230-231) give other reasons for applying creative accounting.

**Unsuccessful management** will try to conceal its inability or mistakes committed by it through creative accounting and to postpone the process of finding solutions to problems. With a growing distinction between managerial and ownership function there are pressures on the management to provide and maintain good business results.

The company can **economise for truth** by reporting correctly but incomplete. Certain information is disclosed only if it is advantageous, otherwise it remains undisclosed.

**Fast development of technology and business methods**, which are progressing ahead of legislation or accounting principles and regulations cause that without modern regulations the accounting profession lags behind the requirements of the business world and has no other alternative than to apply alternative methods to meet new challenges.

Pressures by large institutional investors can lead companies to manipulate their business data in order to meet the expectations of financial markets, which seek stable growth of profits and are reacting negatively as soon as the results fall behind expectations.

The lack of clarity regarding accounting regulations, legislation and principles, which use very vague and flexible terms in defining how accounting reports should be prepared and presented. Although at first sight, they may give the impression of congruence, they in fact permit a wide spectre of accounting solutions for any individual accounting problem.

## **Professional Ethics**

Professional ethics and ethical conduct are quite important aspects of civilised society. Ethics deals with good and bad types of conduct, which drive the individual, group or profession. It represents a kind of a set of basic rules by which the people act and behave, particularly regarding fellow people. The ethical professional code of a profession is important particularly because the members of a profession are increasingly aware of the moral aspects of their work, they act in a more uniform way and are able to better appreciate their work. If members consequently follow the obligatory code, they can justify their deeds if being criticized. At the same time it keeps them away from non-ethical conduct, since it is easier to identify. Of course, adopting an ethical code for a certain profession does not mean that those who are governed by the code will act ethically. As a matter of fact, it is the accountant who will decide how to act in a certain moment.

Even in Slovenia there is a professional ethical code for accountants. It is represented by a set of rules, which the accountant has to follow when performing his work. The professional ethics of accountants requires that they completely focus on their work and that they take great care for its quality, not only to follow professional achievements but also to expand their own knowledge base and maintain a high professional level of work ability.

The principles of conduct for accountants refer to expertise, responsibility, confidentiality, fairness, authenticity and ambitiousness. The basic feature of all principles requires that an accountant may not be deliberately involved in any wrongdoing or illegal activity as well activities which shed negative light on the accountant's profession. At the same time the accountant has to protect confidential information, which he has access to, except when he is explicitly authorised to do so or is bound by regulations to disclose them. In no other case he may not use confidential information for his own benefit or allow others to take advantage of them.

The use of creative accounting considerably increases the professional risk of auditors and accountants, while at the same time it considerably increases the scope of the required knowledge for preparing and auditing accounting rules.

## **Is Slovenia Safe Against the Application of Creative Accounting?**

Even Slovenia makes a lot of efforts to implement the west European capitalist system not only in the field of changing the social system but also from the economic aspect. There are of course similar problems just like in any other east European country under transition.

It was as late as 1993 that Slovenia for the first time ever introduced modern accounting approaches, particularly through introducing Slovene Accounting Principles. In the earlier system when Slovenia was still part of Yugoslavia, the accountant followed the given procedures and regulations. There was hardly any room for creativity. Today there are constant changes and the accountants have to continuously follow these changes and expand their knowledge base. In 2002, the new Slovene Accounting Principles were introduced which are to a large extent based on international accounting principles and are slowly approaching the Anglo-American guidelines of accounting principles. Despite the fact that among the basic accounting assumptions the principle of prudence is not explicitly underlined like in earlier 1993 SAS, the Slovene Accounting Principles still maintain their rather conservative approach. To name an example are the increase and decrease of asset value: the increase of asset value is admissible, while the decrease of asset value is obligatory.

## **Conclusion**

In this paper I tried to briefly present some creative accounting methods. I mentioned only few of them, just to get an idea how the financial numbers game can be played. There are many other techniques, many other fields prone to the use of creativity in recording and representing the business performance of a firm. I also tried to show very few examples from Slovenian practice and I found out that with the liberalization of accounting rules, due also to the global change in social, economic and political environment, there is much room for use of creativity in accounting,

obviously in negative manner. My research continues: the next goal I'll try to reach is to determine which are the mostly used creative approaches in preparing financial statements in Slovenia.

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# The Ability of Accounting Information to Express the Evaluation of Financial Positions and an Enterprise's Performance

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## Abstract

The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an enterprise useful to a wide range of users in economic decision-making processes. The information's qualitative characteristics are ease of understanding, and their relevance, reliability and comparability. This contribution includes for example, the "writing off" (depreciation) of long-term tangible assets accompanied by the comparison of financial indicators at the international level.

## Introduction

As long as a manager has to make responsible and well-founded decisions as to the management of their enterprise, they must indubitably know the actual situation in the enterprise, and the tools that will provide them with the requisite information about the financial state of affairs and the performance of that enterprise. One of the most significant tools for this purpose is accounting, which provides information on:

- The enterprise's assets (types of asset, their valuation, wear-and-tear, composition, etc.).
- Asset acquisition sources (own resources - equity, external resources – other equity, short-term resources, long-term resources, etc.).
- The enterprise's financial situation (what profit levels were achieved by the enterprise in the given period and how these were divided, whether it is able to pay its debts in time, etc.).

This information is necessary for management decision-making processes, and at the same time, provides a form of feed-back – by informing management as to their success in the past. Kovanicová (2002) states that, "Accounting is the means by which the activities of an enterprise are converted into a range of numbers, which provide information as to the standing of the enterprise, its problems, outlooks and chances. With the help of the correct interpretation of these numbers, it is possible to analyse developments to-date, to plan the enterprise's future activities, and to estimate developments in its financial situation. Information as to the financial strength of the enterprise is required by top management of that enterprise as well as by a wide circle of external, interested parties (e.g. investors, creditors, etc.)".

Primary information is gained from the accounting statements, and is further developed in the financial analyses of an enterprise, in so-called "extensive"<sup>1</sup> and "intensive"<sup>2</sup> indicators. In order to be able to exploit the information gained from the accounting procedures, it is necessary that they be easily understood, reliable, relevant, and comparable, such that they enable the taking of the appropriate correct decisions – not only by the owners of that enterprise, but also by other users (stakeholders), whom might have an interest in so doing.

Czech accounting practice is subject to significant levels of regulation – both as to its content, as well as its formal aspects, and the content of each individual item entry is more-or-less set. Despite this fact, certain differences might well exist, which arise from the various ways of performing valuations, write-offs (depreciation entries), and such like. For instance, should an enterprise choose between a uniform and an accelerated method of calculating accounting write-offs (depreciation), then this would result in the following (differing) outcomes. Let us say for example's sake that one owns long-term assets with a value of 580 thousand CZK whose life-cycle has been set at 5 years. Then the depreciation, (which has an influence on the levels of Net Profit) calculated using the SYD (Sum of the Years Digits) uniform depreciation method – a method based on a decreasing depreciation rate and a constant

depreciation amount, and using the DDB (Double Declining Balance) method – a method based on a constant depreciation rate and a decreasing depreciation figure), would appear as follows (N.B.: Data in thousands of CZK).

TABLE 1: DEPRECIATION USING THE LINEAR DEPRECIATION, DDB, AND SYD CALCULATION METHODS – OWN SOURCE

Depreciation period	Depreciation using the Linear Depreciation calculation method	Depreciation using the SYD Depreciation calculation method	Depreciation using the DDB Depreciation calculation method
1.	116	186.67	224.000
2.	116	149.33	134.400
3.	116	112.00	80.640
4.	116	74.67	48.384
5.	116	37.33	29.040

The level of clear profit will also have an influence on the associated financial analysis indicator, for example, let us consider the “rentability” of one’s own equity or capital, (i.e. Return On Equity – ROE). In order to simplify issues, if we anticipate that for returns on an equity value of 500 thousand CZK, whose only costs will be those of depreciation, then the value of one’s own capital excluding the operational outcome is 260 thousand CZK. In our example, we will not consider taxation influences. Thus, the data (in thousands CZK) calculated below – is shown for the first year of depreciation write-offs.

TABLE 2: CALCULATION OF ROE USING VARIOUS CALCULATION METHODS – OWN SOURCE

Depreciation Method	ROE = Profit/Own Capital
Linear	0.63
SYD	0.55
DDB	0.51

Similarly, the indicators for Net Profit and Own Capital would be altered in the course of ascribing correctional entries for inventory and outstanding debts, or reserves.

Should we orient ourselves on comparability at an international level, further differences would arise. The accounting practice of individual states varies as a result of differing economic environments, taxation systems, legislative systems, and so forth. Each state also has its own means of regulating accounting practices, and it is precisely for these reasons that the varying forms of accounting statements from individual states are non-comparable.

From an international comparison perspective for instance, national adaptations regarding the arrangements for issues involving the activation of interest rates on the acquisition costs of assets, the consequences of changes to methods used in accounting practices, as regards Own Capital - the possibility of adjusting long-term asset values in an upward direction, etc., all of these may project themselves onto the level of Net Profit.

The following example deals with adjustments to asset value, from that shown in the account books to (real) market value, this has to do with increases in the value, carried out in line with International Accounting Standards<sup>3</sup>, or, to be more precise, using the alternative method shown in International Accounting Standard No 16<sup>4</sup>.

An enterprise owns long-term assets to a value of 400 thousand CZK. It writes down the asset value linearly, where the life-cycle has been set at 10 years. The following Table shows a comparison of two variants, given that the enterprise performs a revaluation at the end of the fifth year from “book value” to a “market value” of 260 thousand CZK. Let us then compare this with the variant in which revaluation did not take place. (N.B.: Data in thousands of CZK).

TABLE 3: REVALUATION OF ASSETS IN ACCORD WITH THE ALTERNATIVE SOLUTION CONTAINED IN IAS 16 – OWN SOURCES

Values AFTER Revaluation		Values W/OUT Revaluation
Asset Acquisition Cost	400	400
Write-offs over 5 years	-200	-200
Balance	200	200
Accounting value in 5th year	260	200
Annual depreciation write-offs in subsequent years	52	40

The differences in revaluation are expressed as a component of Own Capital (Equity) in the item entry “Increases from revaluations”, which are calculated in the course of writing off those assets, to which they are related, into Retained Earnings, i.e. against the operational outcomes of the past accounting period(s). In this case, enterprises that have re-evaluated assets in the course of their use will show lower profits than those that have not re-evaluated these assets. A second possibility exists for the calculation of increases from revaluations into the profits of individual accounting periods at the level of the difference between the original write-offs of the assets and their new values after re-evaluation. In such a case, the enterprise would show the same profits as if re-evaluation had not taken place at all. Should an enterprise account for “Increases from revaluations” only upon the absolute writing-off of that asset then the ROE values would be the following. (In this example, we will work with a profit value of 500 thousand CZK, costs will only be depreciation write-offs, and where the value of Own Capital without the operational outcome and the Revaluation Reserve Fund is 200). In this example we will not take into consideration taxation’s influences.

TABLE 4: CALCULATION OF ROE IN THE COURSE OF RE-EVALUATING LONG-TERM ASSETS (LTA)– OWN SOURCES

Depreciation write-offs		ROE = Profit/Own Capital
Value without revaluation of LTA*	40	0.70
Value after revaluation of LTA*	52	0.61

The above-mentioned example is a clear example of one of many (potential) differences that might occur in the course of performing international comparisons.

Indicators based on the value of Profit and Own Capital (e.g. ROE) or the asset value (e.g. Returns On Assets), or liquidity indices and so on, will develop in accordance with the various ways of re-valuing and accounting for differences in such revaluations.

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### **End Notes**

- <sup>1</sup> Extensive Indicators – contained directly within Accounting Statements, the Balance Sheet, and Profit and Loss Statements.
- <sup>2</sup> Intensive Indicators – ratio-based indicators.
- <sup>3</sup> International Accounting Standards – IAS: These are standards proclaimed by the International Accounting Standards Board – IASB, and serve for the harmonisation of accounting statements.
- <sup>4</sup> IAS – 16, Property (land), buildings, and facilities – The aim of this standard is to describe the approach to accounting for property (land), buildings and other facilities. The fundamental problem lies in the “time-related recognition” of assets, the determination of their accounting values, and the accounting methods for depreciation write-offs.

# The Relation between Accounting Frauds and Corporate Governance Systems: An Analysis of Recent Scandals

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## Abstract

Recent international financial scandals have shown how actual corporate governance systems are far from preventing the risk of misleading financial information. This paper focuses on the main features of some well-known Italian and international accounting frauds, to find some relations between corporate governance rules, control systems, accounting regulation and the frauds themselves. Deeply, each case of accounting fraud will be analysed through the following grid of main features - Origin, Causes and Incentives, Development Process, Implementation Tools, and Internal and External Controls. The final purpose is to identify the relation between frauds characteristics, economic and legal systems and corporate governance practices in different countries and to highlight the effects of contest variables, regulation and control systems on the genesis and development of accounting fraud.

## Introduction

In the past few years, public attention has been directed to the continuing revelations by major corporations of accounting misreporting and frauds, mismanagement, bankruptcy and excessive executives compensation.

Most of these cases have been revealed in United States, whose capital markets, corporate governance rules and accounting systems have always been considered as an efficiency and effectiveness exempla.

The wave of scandals began with the demise of Enron and Arthur Andersen. Later, the list of corporate irregularities and failures has grown every day: WorldCom, Kmart, Tyco, Global Crossing, Adelphia and many others. Some of these companies (such as Enron, WorldCom, Tyco..) have destroyed billions and billions of dollars in shareholder value while moving toward bankruptcy.

The number and the importance of American corporate scandals have raised questions about the quality of corporate governance in the United States. In fact, even if some of these scandals can be considered as a result of the market bubble burst in 2000, the broadness of corporate misconduct and misreporting suggests also a failure of the American corporate governance system.<sup>ii</sup>

Furthermore, many scandals have also characterised the European scenario, showing that probably every corporate governance system in modern economies is far from preventing the risk and the damages of misleading financial information.

The structural differences between the American and the European system are basically linked to how much influence outsiders wield over a company's operations<sup>iii</sup>.

In the United States there is a strong shareholder oriented norm; anyone could gain influence over a company by purchasing shares in it. Moreover, because hedge funds invest a large part of their money in stock and bond markets, even who does not own stocks directly has a vested interest in the country's corporate health.

European situation has been different. European companies have traditionally raised capital through the typical continental banking systems or through retained earnings rather than from the securities markets. The state protects citizens from the rise and fall of the stock and bond markets but also removes most incentives to care about what is going on in the corporate world.

A common aspect characterising the main scandals is the relevance of corporate reporting failure, as shown by the willingness of corporate managers to inflate financial results, either by overstating revenues or by understating costs, or to divert company funds to private uses.

Fraudulent "earning management" or "misreporting" are indeed a leit-motif of recent corporate scandals.

Investors' confidence in the quality of corporate financial reporting has been seriously damaged. The ever-increasing process of overstated earnings, inflated asset values and understated liabilities, suggests the possible existence of deficiencies in the accounting standards and in corporate governance rules. Both issues play a primary role in financial information by public companies<sup>iv</sup>.

Accounting frauds and financial shenanigans are an increasing phenomenon in the current competitive scenario, even if nature and consequences of frauds are far from being completely understood. It is then important to investigate the nature of the fraud, what factors can motivate and provide incentives to it, what factors influence the probability of fraud detection and what corporate governance mechanisms can be effective in discovering corporate fraudulent activities.

## **Objective, Scope, and Hypotheses**

The purpose of this paper is to analyse the relation between financial frauds typologies and corporate governance systems.

We will empirically investigate, on a qualitative perspective, twenty of the recent international scandals, chosen from different countries, trying to get evidence about the relation between the corporate governance system of each firm and the characteristics of accounting frauds, defined by specific parameters.

The empirical analysis is also a base to highlight, even in future implementation of the research, the effects of contest variables, regulation and control systems on the genesis and development of accounting frauds.

In this paper we aim to demonstrate the empirical relevance of the following two hypotheses:

- Hypothesis A: accounting frauds follow two main generation processes and can be tentatively distinguished in two categories: "excessive power" and "performance stress" accounting frauds;
- Hypothesis B: corporate governance system has a significant influence in determining the typology of accounting fraud.

This paper provides a first empirical evidence for these hypotheses and represents a first partial step in the investigations on the relation between accounting fraud nature and incentives, corporate governance systems, with particular attention to control mechanisms, and environmental variables.

The following paragraphs, after a brief review of the literature on accounting frauds and their relation with corporate governance, will go through the definition of the two categories of accounting frauds, the methodology of the analysis and the empirical results.

## **Literature Review**

The worst aspect of the recent corporate misconduct has been the collective failure of corporate governance mechanisms to detect financial misreporting and to prevent sudden and surprising corporate debacles.

In fact, one of the most important issues of corporate governance systems is related to the mechanisms that provide shareholders with information about the corporate business, and the legal rules establishing responsibilities for managers and boards of directors<sup>v</sup>.

First of all, it is necessary to define accounting frauds, misreporting and manipulated earnings, in such a way as to understand what are the incentives to realise those performance and the possibility to detect them. Furthermore, it is important to focus on relevance and role of corporate governance.

### **Accounting and Financial Fraud and Manipulated Earnings**

Accounting and financial fraud is defined as deliberate misstatement or omission of amounts or disclosures in financial statements to deceive financial statement users, particularly investors and creditors<sup>vi</sup>.

The concept of accounting fraud can also be expressed like manipulated earnings or accounting irregularities.

Young divides financial misstatements into two categories: errors and irregularities<sup>vii</sup>.

The difference is related to the intent of people providing the incorrect numbers. Errors are defined to be accidental inaccuracies, irregularities are defined to be inaccuracies that are deliberate. When a firm finds an

accounting accidental error, it does its best to fix it and it does not have generally negative consequences. On the contrary, an accounting irregularity is not an accidental mistake that implies that someone is lying.

The concept of fraudulent earnings makes sense just if it is related to “true” earnings. What are true earnings? A true statement, for business people, is something corresponding to reality or facts<sup>viii</sup>.

Usually, earnings reported by corporations and used by investors and managers are imprecise numbers based on multiple assumptions and subjective estimates. This does not mean that financial reports are useless, but just that it is important to set a standard for useful and high-quality earnings.

External financial information is the principal tool to manage the complex relations between firms and a large group of stakeholders with different characteristics, interests and cognitive objectives<sup>ix</sup>.

But financial information depends also on external variables, related to its environment (laws, national and international accounting principles,..)<sup>x</sup>.

As matter of fact, frauds victims’ groups are broad. The victims can be insiders (like employees, audit committees, internal auditors, managers suffering a reputation loss) and/or outsiders (like investors, creditors, customers, suppliers, external auditors).

Financial fraud can be committed through the following tools:

- Falsification, alteration or manipulation of material financial records, supporting documents, or business transactions;
- Material intentional omissions or misrepresentations of events, transactions, accounts, or other significant information from which financial statements are prepared;
- Deliberate misapplication of accounting principles, policies, and procedures used to measure, recognize, report, and disclose economic events and business transactions;
- Intentional omission of disclosures or presentation of inadequate disclosures regarding accounting principles and policies and related financial amounts.

Frauds can be divided in two categories: management frauds and employee frauds.

Management frauds are maybe more difficult to detect due to collusion; if a small mistake is not rectified when it is discovered, it can become a fraud. Some of the causes that enable fraud to occur include failure to allocate responsibility for its prevention.<sup>xi</sup> The best deterrent for fraud is an effective functioning system of internal controls, so that where fraud is perpetrated by eluding security arrangements, companies are reluctant to admit accounts falsification.

#### **Origin, Causes, Incentives**

According to Rezaee, three variables can explain frauds accomplishment:

- Conditions
- Corporate structure
- Choice.

This model (3Cs model)<sup>xii</sup> can help to explain motivations and opportunities of financial frauds.

#### **Conditions**

Economic pressures, such as pressure to meet analysts’ earning estimates, are one of the most relevant elements in the process of fraud committing.

Costs/benefits evaluation is fundamental in this process. Managers will compare the benefit in terms of positive effects on company’s stock price or the cost saving of preventing the negative impact on share price, with the possible cost consequences of fraud accomplishment in terms of probability of detection, prosecution and sanction.

Financial pressures, such as inability to meet analysts’ earning estimates or declines in quality and quantity of earnings, are often motivations for management commitment in financial frauds.

It is obvious that very often financial frauds are linked to conditions enabling them, such as:

- Ineffective corporate boards;
- Existence of management with no accountability and insufficient market’s accountability;
- Lack of responsible corporate governance;
- So on.

### **Corporate Structure**

The existence of an effective corporate governance mechanism (such as internal control structure and audit committees) would discourage managers from committing frauds thanks to a larger probability of detection.

The role of corporate governance devices can also be discussed in relation to other social and economic characteristics of different countries where frauds can be accomplished.

It is also important to explain to what extent an effective corporate governance system can help to prevent and detect frauds.

### **Choice**

Independently of the external contest and corporate structure, managers have their own characteristics in terms of aggressiveness and lack of moral principles so that fraud is also a matter of choice regardless of environmental pressure or corporate structure. Some people could be even interested in committing fraud without any consideration for the consequences of their action and of the sanctions (they are crazy nonetheless!).

The increasing incentives to misreporting and the large alleged accounting frauds of recent years have left legislators, regulators and academics searching for answers about the causes of irregularities. Many have suggested that the explanation lies in the incentives and opportunities for personal gain faced by executives.

Recent analyses have demonstrated that there is a strong relationship between stock-based compensation and frauds incentives<sup>xiii</sup>. The use of stock-options for executives compensation rose during the 1990s, when the compensation structure of American executives shifted towards equity-based compensation. The average compensation of CEOs of large U.S. companies tripled in real terms during the 15-years period from 1980 to 1994<sup>xiv</sup>.

### **Fraud Prevention and Detection**

Financial and accounting fraud prevention is not always possible. Anyway, the prevention is linked to some mechanisms whose main elements are:

- Vigilant corporate governance;
- A corporate code conduct;
- An adequate and effective internal control structure;
- An internal audit function;
- External audit services.

These tools refer to a firm culture based on financial and economic disclosure for an effective stakeholders relations management, independently of normative rules<sup>xv</sup>.

Nevertheless, lack of responsible corporate governance and other control mechanisms does not necessarily mean that the company will commit a fraud. A company needs specific reason and incentives to engage a fraud. In fact, it finds a set of acceptable accounting alternatives to justify its actions and opportunity to commit illegal action<sup>xvi</sup>.

Moreover, firm's cost deriving from account falsification consists of reputation damages and big investors' loss of confidence, besides legal procedures cost, functioning in case of accounting and financial frauds<sup>xvii</sup>.

Corporate governance is characterised by organisational structure, which defines the standard operating procedures for the legal behaviours. When frameworks of corporate governance become established, they begin to define the corporate culture. Corporate governance that is consistent with the structure and decision-making routine of a company may be different and inconsistent with the structure of another company.

Due to the difficulty to prevent accounting fraud, the mechanisms of internal/external control, which are strictly linked to corporate governance systems, must be very effective and play anyway a primary role to detect any kind of possible fraud.

### **Corporate Governance**

Corporate governance consists of a various set of legal and institutional mechanisms aimed of safeguarding the interests of corporate shareholders and of reducing agency costs deriving from the separation of ownership (shareholders) from control (managers and/or controlling shareholders)<sup>xviii</sup>. The most important elements in a corporate governance system are the mechanisms that provide shareholders with information about the activities and

the operations of the corporation, and legal rules that establish management's and board of directors' responsibilities as well as the penalties for irresponsible behaviours.

A narrow definition of corporate governance, principally based on the accountability and responsibility more than on the concept of who has the power, is the one referring to the relationship between the company's capital providers (investors and creditors) and the top management<sup>xxix</sup>. Corporate governance, according to another definition, simply means the way a corporation is governed through a fair accountability for managerial and financial performance.

In the past few years we can notice an increasing awareness of the role of corporate governance in financial frauds prevention and detection, thanks to its impact on earnings stability and the quality of financial reporting.

A good corporate governance system can help the recovery of investors' trust<sup>xx</sup>. In fact, the relation between accounting frauds and corporate governance is really strict, independently of the specific governance system, corporate bodies structure and control mechanisms<sup>xxi</sup>.

Misreporting has been considered as whatever action that allows low-value companies to report the same earnings, or revenues, or other dimensions of corporate performance, as high-value ones<sup>xxii</sup>.

There are mainly two kind of actions enabling this process:

- Violation actions, that is actions in open contrast with accounting standards and accounting principles in general, false representation and, eventually, false documentation;
- Elusion actions, that is actions not openly in contrast with accounting standards, generally referring to forced interpretations of them, but aimed of misleading investors about the prospects of the company.

Financial information represents a way to communicate with stakeholders, but the real relationship with them depends on corporate governance model<sup>xxiii</sup>.

In Anglo-Saxon countries, financial information is the main instrument for firms communications to stakeholders. It is a consequence of a "market-oriented" corporate governance model, characterised by public companies, with high split up ownership and the absence of a controlling shareholder. In these case, management is usually not subjected to effective control and has a great leadership in making actions.

In continental Europe (Germany, France, Italy) instead, stakeholders get often financial information through indirect channels.

In these countries corporate governance systems are usually defined as bank-oriented, characterised by controlling shareholders with a strong leadership, consisting of few people, such as families or banks, with a high concentration of ownership<sup>xxiv</sup>. In these cases managers are subjected to the influence of ownership interests<sup>xxv</sup>. In this contest financial information can more easily loose its role of primary and neutral information channel because the interests of some groups of stakeholders (for instance controlling shareholders) could be privileged and they can get information through informal and private sources.

The distinction between market-oriented and bank-oriented systems has been often criticised. Rajan and Zingales show for example that financial information, in developed financial systems, plays an important role for firms with a few tangible assets<sup>xxvi</sup>. These ones can be used like a guarantee to get bank funds, so that firms with low proportion of tangible assets depend much more on the market for financing and markets require higher standards of information disclosure.

The relation between typologies of accounting frauds and characteristics of corporate governance systems is thus explained also by the corporate governance role in guaranteeing quality of financial reporting.

## **Two Models of Accounting Fraud Development Process**

According to the hypotheses of our work, corporate governance systems have a significant influence on the characteristics of accounting irregularities.

We identify three typologies of corporate governance systems, based on differences in shareholders and board composition.

As regards shareholders and ownership structure, we distinguish three cases:

1. The “privately controlled” company, in which there is one shareholder, or one group of shareholders who strictly owns the absolute or relative majority of voting rights;
2. The “open ownership” company, in which there are some shareholders with significant influence, but none of them has got the stable control of the company;
3. The “public” company, in which no single shareholder has a significant influence.

In our model, and only for the aims of this paper, board composition is supposed to be strictly related to ownership structure. Consequently, we distinguish three cases:

1. In the “privately controlled” company, the board is strongly influenced by the controlling shareholders and the Ceo clashes to the controlling shareholder or is a person who strongly depends on him; the executive members of the board are therefore, when not coincident, strictly linked to the controlling shareholder; they have a great decisional power and controlling bodies (i.e. independent directors, supervisory board, collegio sindacale, ...) are not effective in limiting it;
2. In the “open ownership” company, the board is representative of shareholders with significant influence, but it is not dominated by a controlling shareholder (this case also refers to voting agreements and voting trust as a device for co-ordination between significant shareholders); the executive members and the Ceo are quite independent in formulating strategies and in managing the company to implement them, but they are effectively controlled (through controlling bodies or through other informal mechanisms, such as moral suasion) by the shareholders with significant influence;
3. In the “public” company, the board is elected by the shareholders’ meeting, but it is completely independent of shareholders; the executive members have a strong decisional power and they are substantially independent in formulating strategies and in managing the company to implement them; furthermore, neither shareholders nor controlling bodies effectively control the actions of top managers.

Our hypothesis is that it is possible to identify two main typologies and development processes of accounting fraud<sup>xxvii</sup> and that the typology and development process of accounting fraud (from here on, for simplicity, the “accounting fraud models”) depends on the corporate governance system of the company.

The two main models we are going to define, based on the different causes, incentives and environmental circumstances that generate or help the birth of a fraud, are:

- The “excessive power” accounting fraud;
- The “performance stress” accounting fraud.

In the “excessive power” case, the fraud arises from the action of powerful, but also unscrupulous, entrepreneurs or managers. They actually are not subject to only effective controls, and thus deliberately act to deceive other parties in order to gain a private benefit (different from result-based compensation, such as cash distraction). In this case, the accounting irregularity is generally well identifiable, often referred to specific deals or operations and generally it reaches very soon a large extent in value.

In the “performance stress” case, the fraud is generated by the pressure on results that competitive and business environment exercise on top and middle management. We refer, in particular, to the pressure exercised by the financial markets through analyst’s expectations or bank’s requirements, but also to the pressure exercised by the internal budgeting procedures. In this case, the irregularity does not generally arise from an intent to gain private benefit (in the narrow sense, described above) nor with a full awareness of the fraudulent behaviour. That is the result of the intent to meet expected interim results (even on a monthly or quarterly base) and with the hope to compensate very soon the irregularity in the following periods. Accounting frauds of this kind are at the beginning very little in value, but they grow progressively over time (the more the competitive environment is complex the faster they grow) up to become of relevant dimensions.

Obviously, this is a not clear-cut distinction, as in each case of fraud there could be features of both models, but we will try to demonstrate that, depending on some environmental and context variables, and in particular on the corporate governance systems, it is possible to find a significant congruence between each case of fraud and one of the presented models.

The “performance stress” case of fraud is typical of companies with a strong results-oriented culture, characterised by very challenging budgets and high-growth expectations from external analysts.

In the growth phases of a business life-cycle, the market itself helps to improve results and targets are fixed in a more and more challenging way. But when the business comes to maturity, budgeted or expected growth becomes unbearable; nevertheless, company's culture still asks for high-demanding performance. In this situation, missing the expectation becomes very likely, but also very costly for top and middle management in terms of compensation and career.

Often, even for a scrupulous and honest manager, earnings management is too easy to give up. He will find a way to meet monthly or quarterly targets, conscious he is postponing a problem to the future, but also with the sincere hope that, as it has been in the past, the recovery of better market conditions and the implementation of new strategic or tactical measures will help to reabsorb results overestimate. If the case would not be, the manager will find himself to choose between declaring an even bigger targets missing or to implement somewhat bigger artifice for earnings management. If market or strategies would not, as it is indeed very likely, help to reabsorb past overestimate and to reach satisfying current results, the process becomes self-feeding and dangerously irreversible. It becomes, in other words, a hard to defuse mine.

It is not surprising that many frauds of this kind have emerged in recent years in a slump, when not recession, situation, when the concealment of financial shenanigans becomes quite impossible. When it emerges, the dimension of the fraud is much bigger than expected at its beginning.

Financial chronicles in recent years have also known many accounting frauds of a different kind: intentional, generated by lucid dishonesty or avidity. These accounting frauds are more likely to be big since their origin.

According to our hypotheses, these are favoured by corporate governance systems in which one or very few key people have a very big decisional power and in which control bodies are very weak.

Ambition, avidity, unscrupulousness, sensation of almightiness and lack of sensibility for business ethics could be a dangerous recipe, which pushes powerful entrepreneurs or managers to act in a border-line or illegal way, covering their actions with false financial representations.

In the worst cases the accounting fraud is aimed to hide losses or risks related to specific operations generating private benefits (in the narrow sense) for the powerful key figure. In other cases, it only covers intrinsic weaknesses of the company and it is perpetrated to prosecute the dominion of the key decisional figure over the company (continuing to grant, in this way, the consequent private benefits).

In any case and in any kind of process, when the fraud emerges, it suddenly shows problems generated for a (more or less) long period of time; damages for stakeholders, who took decisions based on wrong information, are consequently always relevant.

Before going analytically through our methodology of analysis, we now summarize the most important features of each accounting fraud model.

The principal characteristics of "performance stress" accounting fraud can be summarized below:

- It generally doesn't origin from conscious dishonesty;
- It origins from pressure on results, in companies with a strong culture on performance and challenging targets;
- The fraud starts with little alterations of results; people don't deliberately meet to start a fraud, but they often begin it without a full consciousness to be violating law;
- irregularities often regard the more discretionary items of financial information (revenues recognition in presence of particular selling clauses, reserves and provisions, depreciation and impairment, ...), where it is possible to maintain that accounting standards have been respected also with very different estimates;
- The dimension of irregularity grows over time, as new alterations sum to the old ones, not reabsorbed;
- There quite never exists a way out different from disclosing the fraud; the authors hope the future will help them, but the passing of time only makes the fraud bigger.

The main features of "excessive power" fraud, on the other side, can be highlighted like that:

- The origin is attributable to a well-defined unscrupulous action, known to be dishonest and unethical, aimed to hide the real conditions of the company or, worse, the effects of specific operations which

caused damages to the company and, often, private benefits for the powerful key figure (in a narrow sense);

- The fraud is favoured by personified and authoritative governance style, in which the entrepreneur or the top manager have absolute and undisputed decisional power and in which, consequently, control bodies are not effective because, in fact, “controlled” by the leader;
- The fraud can have big dimensions from the beginning; anyway it tends to grow for the cumulative effect of loss deferment;
- It is likely that, as in the “performance stress” model, the irregularity regards most discretionary items, but it can be as well a clear violation of accounting laws and standards;
- Also in this case there is a hardly way out different from disclosing the fraud; the disclosure time being now dependent on how long is the dominion position of the leader.

### **Models Variables Definition and Methodology of Analysis**

This paragraph will:

1. Define the variables of the two models of accounting fraud here presented;
2. State the expected relation between corporate governance systems and accounting fraud models;
3. Illustrate the methodology of the analysis.

#### **Variables of Accounting Fraud Models Definition**

We define and distinguish each of the two models of accounting fraud according to four variables, that we are here going to discuss:

1. Incentives and causes;
2. Development process;
3. People involved;
4. Accounting standards.

#### **Incentives and Causes**

Incentives and causes regard the motivations to perpetrate a fraud and the interests pursued with it.

In the “excessive power” model, the interests pursued with the fraud are both to present a better situation of the company to investors (shareholders, bondholders, banks, other creditors, ...) and to obtain specific private/personal benefits, different from what represented by bonuses related to results or stock options (or other similar compensation instruments).

On the other side, in the “performance stress” model, the interests pursued are exclusively results improvements to present a better situation to investors, while no specific private/personal benefits (different from compensation instruments) are pursued.

We define these two incentives as:

- Private benefits;
- Performance improvements.

In the “excessive power” model both incentives are present. In the “performance stress” model only the “performance improvements” incentive is present.

“Performance improvements” incentive regards presenting a better company situation either to investors, through external financial information, or to top management, in the internal information flows for budgeting process. In our analysis, which only includes listed companies, we have focused on external information, but in many of the observed cases the improvement of performance for internal management accounting is supposed to be a fraud incentive as well.

#### **Development Process**

Development process regards the way in which the fraud evolves. We refer, in particular to the duration of the fraud and to the way it grows over time.

The duration of the fraud is the number of years for which the company has restated its earnings or anyway the number of years for which a misreporting has been ascertained by authorities, gatekeepers or controlling bodies.

The way the fraud has grown over time is only observed from a qualitative point of view, distinguishing, when possible, irregularities that have grown over time from irregularities born, more or less, with the same dimension they had at the time of the disclosure.

In the “excessive power” model we assume the duration is longer than in the “performance stress” model. This is because in the second case control systems are more effective and should discover the fraud sooner.

For the aim of our analysis we distinguish:

- Frauds lasting up to 2 years;
- Frauds lasting more than two years.

We expect that frauds of the “excessive power” model are more likely to last more than two years while frauds of the “performance stress” model are more likely to last up to two years.

### **People Involved**

The variable “people involved” refers to the persons involved in the fraud, that is the persons that, from the ascertainment of authorities, gatekeepers or controlling bodies result to be the authors or the inspirers of the fraud.

In the “excessive power” model we assume that the fraud stems from the top management or from the entrepreneur (in the entrepreneurial companies).

In the “performance stress” model we assume that, besides that in the top, the fraud could also be generated in the periphery of the company.

We distinguish then:

- The cases in which middle or peripheral management is involved in the fraud, that, according to our hypotheses, should pertain to “performance stress” model;
- The cases in which only the entrepreneur or top management is involved in the fraud, that, according to our hypotheses, could indifferently pertain to both models.

Top management is defined as the Ceo and the executives reporting directly to him. Entrepreneur, when identifiable, is the person who has the controlling ownership of the company.

### **Accounting Standards**

The variable “accounting standards” regards the way in which the fraud is implemented from a technical point of view and, consequently, the way it is contrary to accounting regulation.

We distinguish:

- The “violation” of accounting standards;
- The “elusion” of accounting standards.

We define “violation” of accounting standards an accounting behaviour which is clearly contrary to accounting regulation, because it gives a representation not coherent with facts, operations or contractual relations and with the documentation which proves and disciplines these facts, operations or contractual relations. In this sense, there is a violation of accounting standards when the accounting behaviour openly and clearly doesn’t follow accounting standards in representing the facts, operations or contractual relations.

We can have two typologies of “violation”:

- Accounting doesn’t fairly represent the facts and the documentation;
- Accounting corresponds to the formal documentation, but it doesn’t fairly represent the facts.

We define “elusion” of accounting standards an accounting behaviour which is not contrary to accounting regulation in a clear and straightforward way, but which forces it in order to give an altered representation of the economic and financial situation of the company.

We can have two main typologies of “elusion”:

- Irregularity resides in the most discretionary items of a financial statement, so that the presentation of the company situation could be altered through unfair estimates (for instance about provisions) or interpretations matters (for instance about the revenue recognition criteria), without openly violating accounting standards, but in facts not respecting them<sup>xxviii</sup>;

- Irregularity resides in doing actions without economic convenience (and often with negative consequences on earnings of following years) and whose only justification is the improvement of current results (for instance anticipating deliveries or producing for the warehouse).

Our hypothesis is that the “excessive power” accounting frauds are more likely perpetrated with “violation” of accounting standards, while the “performance stress” accounting frauds are more likely perpetrated with “elusion” of accounting standards.

Obviously, many frauds are perpetrated with more than one implementation tool (i.e. accounting principles manipulation) so that “elusion” and “violation” can be both present.

#### **Summarizing**

For the aim of this paper and necessarily simplifying a more complex reality, the two kind of accounting frauds can be briefly defined in the following way:

- The “excessive power” accounting fraud is committed with the purpose to improve reported performance, but also to get private benefits different from performance compensation, involves directly the top management, lasts more than two years and is perpetrated also through open violation of accounting standards;
- The “performance stress” accounting fraud is committed only with the purpose to improve reported performance, can start from the periphery of the organization, lasts two years or less and is perpetrated through the elusion of accounting principles.

It is important to underline that the distinction of the two models is never, in reality, clear-cut. These definitions are then useful only for the purpose of this paper, as showed hereinafter.

#### **Expected Relation between Corporate Governance System and Accounting Fraud Model**

According to the proposition stated in the first paragraph, we expect that companies with corporate governance systems in which a single or very few executives have an absolute decisional power and in which controlling bodies are less effective, are more likely to develop an “excessive power” fraud, while companies with corporate governance systems in which executives are significantly controlled by influent shareholders and in which controlling bodies are more effective, are more likely to develop a “performance stress” fraud.

For the sole purpose of this paper, the definition of corporate governance systems is the following:

- “Public” company, if there aren’t shareholders holding more than 10% of voting rights;
- “Open ownership” company, if there are shareholders holding more than 10% of voting rights, but nobody holds more than 30% of voting rights;
- “Privately controlled” company if there is at least one shareholder who holds more than 30% of voting rights.

Referring to our simplifying classification of corporate governance systems, our proposition is that:

- The “privately controlled” and the “public” companies are more likely to develop an “excessive power” accounting fraud;
- The “open ownership” companies are more likely to develop a “performance stress” accounting fraud.

#### **Methodology of the Analysis**

The methodology of the analysis presents the following steps:

1. Classification of the 20 case-studies according to the corporate governance model;
2. Analysis of the relevant variables for each case of accounting fraud or irregularity;
3. Analysis of coherence of the logic actual values of variables with the expected values of variables according to our hypotheses;

The case-studies analyzed in this paper are listed in the following schedule:

TABLE 1: CLASSIFICATION OF THE 20 CASE-STUDIES ACCORDING TO THE CORPORATE GOVERNANCE MODEL

<b>Company</b>	<b>Country</b>	<b>Sector</b>
Adecco	Switzerland	Employment Agency
Adelphia	USA	Cable company
Ahold	Netherlands	Food service - supermarket group
AOL	USA	Mass media
Bipop	Italia	Financial services
Bristol Myers	USA	Pharmaceutical industries
Cirio	Italia	Food industries
Enron	USA	Energy Trading
Finmatica	Italia	Software development
Freedomland	Italia	Internet- Tv
Giacomelli	Italia	Sportwear trade
Global Crossing	USA	Broad band wire telecom services
Kmart	USA	Distribution
Nortel	Canada	Telecom equipment
Parmalat	Italia	Food industries
Royal Dutch Shell's	Netherlands	Oil - Natural Gas
Tyco	USA	Industrial and financial conglomerate
Vivendi	Francia	Multimedia
Worldcom	USA	Telecom services
Xerox	USA	Photocopier

Companies are classified, according to their corporate governance systems, in this way:

TABLE 2: ANALYSIS OF THE RELEVANT VARIABLES FOR EACH CASE OF ACCOUNTING FRAUD OR IRREGULARITY

<b>Company</b>	<b>Country</b>	<b>Sector</b>	<b>Corporate Governance</b>
Adecco	Switzerland	Employment Agency	Open ownership
Adelphia	USA	Cable company	Privately controlled
AHOLD	Netherlands	Food service - supermarket group	Open ownership
AOL	USA	Mass media	Public
Bipop	Italy	Financial services	Open ownership
Bristol Myers	USA	Pharmaceutical industries	Public
Cirio	Italy	Food industries	Privately controlled
Enron	USA	Energy Trading	Public
Finmatica	Italy	Software development	Privately controlled
Freedomland	Italy	Internet- Tv	Privately controlled
Giacomelli	Italy	Sportwear trade	Privately controlled
Global Crossing	USA	Broad band wire telecom services	Open ownership
Kmart	USA	Distribution	Public
Nortel	Canada	Telecom equipment	Public
Parmalat	Italy	Food industries	Privately controlled
Royal Dutch Shell's	Netherlands	Oil - Natural Gas	Open ownership
Tyco	USA	Industrial financial conglomerate	Public
Vivendi	France	Multimedia	Public
Worldcom	USA	Telecom services	Public
Xerox	USA	Photocopier	Open ownership

This analysis was conducted through public information contained in sources like annual reports, information and filings to authorities and gatekeepers (when public), information from newspapers, journals, magazines, internet website and other public sources.

For each case of accounting fraud it has been determined:

- If the incentives and interests pursued included also private benefits or not;
- If the development process of the fraud, as understandable from public sources, lasted more than two financial years or not;
- If the fraud started from the top or the periphery of the company;
- If the fraud consisted of an open violation of accounting standard or not.

#### **Analysis of Coherence between Actual Values and Expected Values of Variables**

The analysis of coherence between actual values of variables and expected, according to our hypotheses, values of variables has been conducted on two levels:

- Coherence with the hypothesis of relevance of the distinction of two models of accounting fraud;
- Coherence with the hypothesis of the relation between corporate governance systems and accounting fraud model.

On the first level, we have calculated, for each case-study, the number of observations which are coherent with the model of “excessive power” and the ones coherent with the model of “performance stress”.

We define “maximum” coherence the case in which all four variables are coherent with the same model of accounting fraud, “good” coherence if three variables are coherent with the same model of accounting fraud, “absent” coherence if two variables are coherent with one model and the others two with the other model.

In some cases in which we hadn’t enough information to classify the variable, we have classified it in order to diminish total coherence.

As regards the variable “people involved”, a fraud which starts from the top could be coherent with both models of “accounting frauds”.

On the second level, we have calculated the number of observations which are coherent with the model of corporate governance and the ones which are not, according to our hypothesis that “privately controlled companies” and “public companies” are more likely to put in place an “excessive power” accounting fraud, where “open ownership” companies are more likely to put in place “performance stress” one.

We then have calculated the total number of coherent observations and the total number of non coherent ones.

In some cases in which we hadn’t enough information to classify the variable, we have classified it in order to diminish total coherence.

## **Results and Conclusions**

The above mentioned analysis has conducted to the following results:

- Hypothesis A: the distinction of the two models of accounting fraud (“excessive power” and “performance stress”) seems to be quite relevant because in the 60% of cases (12 on 20) coherence has been “maximum”, in the 25% (5 on 20) “good” and in the 15% (3 on 20) “absent”.
- Hypothesis B: the relation of accounting fraud model with corporate governance system seems to be quite relevant because in the 70% of total observations (56 on 80) coherence has been “existent”, in the 30% (24 on 80) “absent”.

Detailed observations and results are shown in the annex A.

This analysis has given us a first confirmation on empirical relevance of the distinction between a model of “excessive power” accounting fraud and a model of “performance stress” accounting fraud, which was intuitively hypothesized.

This analysis has also given us a first confirmation on empirical relevance of the hypothesis that corporate governance systems influence the way in which accounting frauds are perpetrated.

The principal limits of the analysis are the number of the cases, which could be increased, the time horizon of the analysis, which could be extended, and the number of relevant variables which define each model of accounting fraud, which surely could be sophisticated. In particular, the fraud should be also studied with reference to the behaviour of controlling bodies (independent directors, audit committees, external auditors, gatekeepers and

so on) to infer the relationship between accounting fraud models, corporate governance systems and the prevention and detection of accounting frauds.

Further implementations of our analysis could then related:

- To the extension of the analysis to more cases in an extended time horizon;
- To a more detailed definition of the characteristics of the accounting fraud models;
- To the use of a more sophisticated quantitative methodology of treating the available data;
- To a deep analysis of the role of controlling bodies, regulation and context variables.

**Annex A**

Company	Variables	Fraud model	Corp.Gov.	Cause/Int.	Dev.Proc.	Acc.Stand.	People	TOT	Coherence with models			Coherence with C.G.	
									Max	Good	Absent	Existent	Absent
<b>Enron</b>	Power abuse	X	1	1	1	1	1	4	1			4	
	Perf.stress							0					0
<b>Worldcom</b>	Power abuse	X	1	1	1	1	1	4	1			4	
	Perf.stress							0					0
<b>Nortel</b>	Power abuse	X		1			1	2			1	2	
	Perf.stress			1		1		2					2
<b>Tyco</b>	Power abuse	X	1	1	1	1	1	4	1			4	
	Perf.stress							0					0
<b>Ahold</b>	Power abuse				1			1			1		1
	Perf.stress	X	1			1	1	3				3	
<b>Bipop</b>	Power abuse		1	1	1	1	1	4	1				4
	Perf.stress	X						0				0	
<b>Global Crossing</b>	Power abuse			1	1	1	1	0	1				0
	Perf.stress	X	1					4				4	
<b>Freedomland</b>	Power abuse	X				1	1	2			1	2	
	Perf.stress			1	1			2					2
<b>Vivendi</b>	Power abuse	X			1		1	1			1	1	
	Perf.stress			1		1		3					3
<b>Kmart</b>	Power abuse	X	1			1	1	3			1	3	
	Perf.stress				1			1					1
<b>Finmatica</b>	Power abuse	X				1	1	2			1	2	
	Perf.stress			1	1			2					2
<b>Royal Dutch Shell</b>	Power abuse							0	1				0
	Perf.stress	X	1	1	1	1	1	4				4	
<b>Adecco</b>	Power abuse							0	1				0
	Perf.stress	X	1	1	1	1	1	4				4	
<b>Adelphia</b>	Power abuse	X	1	1	1	1	1	4	1			4	
	Perf.stress							0					0
<b>AOL</b>	Power abuse	X						0	1			0	
	Perf.stress			1	1	1	1	4					4
<b>Xerox</b>	Power abuse				1			1			1		1
	Perf.stress	X	1			1	1	3				3	
<b>Bristol Myers</b>	Power abuse	X			1			1	1			1	
	Perf.stress			1		1	1	3					3
<b>Cirio</b>	Power abuse	X	1	1	1	1	1	4	1			4	
	Perf.stress							0					0
<b>Parmalat</b>	Power abuse	X	1	1	1	1	1	4	1			4	
	Perf.stress							0					0
<b>Giacomelli</b>	Power abuse	X	1			1	1	3			1	3	
	Perf.stress				1			1					1
									12	5	3	56	24
									60,0%	25,0%	15,0%	70,0%	30,0%

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## End Notes

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<sup>i</sup> The paper is the result of a joint activity of the authors. Nevertheless, paragraph 1,2 and 3 are been written by Francesca di Donato and paragraph 4, 5 e 6 by Riccardo Tiscini.

<sup>ii</sup> F. R. EDWARDS, *U.S. Corporate Governance: What went wrong and can it be fixed?*, Paper for B.I.S. and Federal Reserve Bank of Chicago conference, 2003.

<sup>iii</sup> C. RISEN, *Account due*, The new Republic, 29 march 2004

<sup>iv</sup> B. LEV, *Corporate Earnings: Facts and Fiction*, Journal of Economic Perspective – Vol. 17, N. 2 - 2003

<sup>v</sup> F. R. EDWARDS, *op. cit.*

<sup>vi</sup> Z. REZAEI, *Financial Statement Fraud – Prevention and Detection*, John Wiley & Sons, Inc. 2002, pag. 6

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- <sup>xxvii</sup> From here on the term “accounting fraud” will be used indifferently with “accounting irregularity” and is considered to have the same meaning, even if literature assigns to the first a stronger meaning.
- <sup>xxviii</sup> This kind of “elusion” of accounting standards requires, as the “violation”, the need to restate financial statements.

# Have Ethical Perceptions of Managers Changed? A Follow-up Study of Two Decades

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## Abstract

Ethical perceptions of executives and managers were explored in this explorative study in 1981, 1993 and 2003 using the same questionnaire. The results showed that attitudes changed very little over the period of 22 years: there were more similarities than differences in this survey. A vast majority of the respondents (about 90 %) were in the opinion that there are unethical practices in business. On the other hand, a majority considered the ethical level of business to be better than a decade earlier and this positive development was also estimated to continue in the future. The managers defined ethics typically in a subjective or individualistic way rather than using more objective criteria. Contrary to expectations, perceptions were also rather homogeneous: there were no significant differences in ethical perceptions between respondents of different age groups nor respondents from various industries and different company size. The study challenges this homogeneity based in the first place by Kantian law ethics rather than virtue-based ethics in front of rapidly globalizing world economy calling for ethical pluralism rather than ethical minimalism.

## Introduction

Concerns with ethical problems have intensified in the early new millennium due to several recent corporate scandals such as Enron and Parmalat. At the same time, a great deal has been written about ethics in business life. A quick search on the Internet, using the Altavista search engine, has identified more than 20,000 web pages and some 1,200 books on business ethics. Thus, business ethics has grown in response to the apparent decline in ethical behavior in business and as a recognition that economic relations seem to have their own morality.

Aside of business ethicists, there have been attempts to theorize ethics and morality from a wide range of other perspectives, inter alia, sociology, law, economics, theology, philosophy, social psychology and cultural psychology (i.e. Bowie, 1999; Wilber, 1998). A further challenge is how to cope with the contemporary confluence of globalization and ethical pluralism, which seems to be at the origin of many ethical tensions that confront business today, both in practice and in theory (Gonzaléz, 2003; Sethi, 2003).

Emerson and Conroy (2004) state in their recent article that due to the data availability issues, only a few studies have taken a true longitudinal approach, sampling the same respondents over a number of years. The authors are also constrained by data issues and do not attempt such an analysis, but try to measure changes in societal views on business ethics that are more common in this field. Another notion is that college and university students usually without or with very limited work experience have been a typical target group for surveys. (i.e. Farling & Winston, 2001; Harich & Curren; 1995; Lewis, 1989; Zinkhan, Bisesi & Saxton; 1989)

One of the early writers in the field, Raymond J. Baumhart conducted a large empirical survey of American managers in 1968. In this survey, Baumhart highlighted some points mostly still relevant after almost four decades:

- Most managers and business believe that they are more ethical than the average manager, and extension of himself (his department, company, industry, and country) is more ethical than their counterparts.
- The ethical dilemmas of deepest concern to managers are personnel problems; more frequent, however, are unfair competitive practices such as price discrimination or collusion, bribery, and dishonesty in advertising or contracts.
- Managers believe that good ethics is good business in the long run, especially in employee and customer relations.
- Managers typically become more ethical as they grow older, partly because of financial security.

- It is easier to be ethical in jobs involving fiduciary relationships, such as the accountants' or engineers', than in those jobs involving competitive relationship, such as salesman's or purchasing agent's.
- Competition is the factor of greatest influence on ethical behaviour in business. Unethical practices tend to result from both too little or too much competition in an industry.
- Managers of multinational companies, as their handling of culture-related reveals, disagree about what constitutes ethical behavior abroad.

Maybe one of the most well-known and cited study on business ethics was published a decade later (1977) in the Harvard Business Review under the title "Is ethics of business changing". This article by Brenner and Molander has served as a model in certain aspects for the Finnish survey presented in this paper, too.

Brenner and Molander basically compare what some 1,200 HBR readers thought of business ethics in relation to what their counterparts perceived fifteen years earlier. The most emergent results of their study can be summarized briefly as follows:

- There was a substantial disagreement among respondents as to whether ethical standards in business had changed from what they were earlier.
- Respondents were somewhat more cynical about the ethical conduct of their peers about their own.
- Most respondents favoured ethical codes, although they strongly preferred general precept codes to specific practice codes.
- The dilemmas respondents had experienced and the factors they had felt to have the greatest impact on business ethics suggested that ethical codes alone will not substantially improve business conduct.
- Most respondents had overcome the traditional ideological barriers to the concept of social responsibility of business and had embraced its practice as a legitimate and achievable goal or business.
- Most respondents ranked their customers well ahead of shareholders and employees as the client group to whom they feel the greatest responsibility.

(Brenner & Molander, 1977)

## Research Question and Methodology

There are a number of follow-up studies on changes in ethical attitudes of business managers since the classical article by Brenner and Molander in the Harvard Business Review in 1977 (Ford & Richardson, 1994; Emerson & Conroy, 2004). In this study, a similar survey instrument was presented to Finnish managers and executives in 1981, 1992 and in 2003, respectively. The mailed questionnaire covered a wide range of questions and background data such as rankings of the relevant stakeholders, issues in social responsibility of business, existence of unethical business practices, unethical practices executives want to eliminate, conflicts between the advantages of one's corporate and own moral beliefs, role of code of ethics, how the ethical level of business could be improved etc.

## Sample

The number of respondents in the three surveys was as follows: 442 in 1981 (response rate 81.3 %), 412 in 1992 (70.1 %) and 324 in 2003 (45,4 %). The respondents were mainly males (the proportion of female respondents was about 10 % in all three samples), represented top executives and upper middle management (with some senior specialists) both industry and service industry and mostly medium sized and large enterprises (about 80 %) in Finland. About one third of the respondents were participants in executive education and management programs and two thirds were reached through a mail survey with the same target group consisting of executives and professional managers.

About a half of the respondents were 40-50 years old with a smaller amount of respondents aged under 40 or above 50. There is some variation in the age distributions of the three samples (Table 1) particularly in the 2003 sample, where the proportion of respondents above 50 is higher than in the other two earlier samples. This does not cause any major bias, because it appeared that age is not a discriminating factor among the respondents (Chi square tests were employed for each sample with no significant differences between various age groups).

TABLE 1. AGE DISTRIBUTION OF RESPONDENTS

Age	1981	1993	2003
- 39	42 %	28 %	20 %
40 – 50	40 %	55 %	48 %
51 -	18 %	17 %	32 %
	100 %	100 %	100 %

In terms of the size of companies the respondents came from there were also some variation between the three samples as follows:

TABLE 2. THE SIZE OF RESPONDENTS' FIRM

	1981	1993	2003
Small	15 %	21 %	18 %
Medium-sized	24 %	21 %	38 %
Large	58 %	61 %	44 %

These data with the increasing proportion of medium-sized enterprises in the 2003 sample may reflect the changing size structure of economy, but also the fact that medium-sized firms have become more interested in management education (a major proportion of the respondents come from managers who attended management training programs and courses). However, Chi square tests indicated again that there are no statistically significant differences between the respondents from various company size.

## Results

### What Managers Mean by 'Ethical'?

Many business people are somewhat puzzled about the meaning of ethics. They may prefer other concepts such as 'values' instead of ethics. Well-known management writer Peter Drucker has alleged that there is no such thing as 'business ethics', but ethics is ethics at home or at work. Any attempt to define special set for corporation is at best 'ethical chic' and at worst a stick with which to beat big business according to Drucker.

Ethics is basically a product of human reason: it derives its principles from reason, unassisted by divine revelation, but aided throughout by reflection on human experience. As a philosophical enterprise, ethics is concerned not only with the relationship of means to ends, but also with the discovery and choice of most reasonable ends. Ethics can be considered both art and science and it can be said to involve both knowledge and practice.

The respondents in each sample were given a forced-choice question about what they consider ethical, particularly ethical behavior. The nine alternatives or descriptions of ethical called from those proposed by philosophers, theologians and businessmen. The most preferred choices are seen in Table 3:

TABLE 3. WHAT MANAGERS MEAN BY ETHICAL?

	1981	1993	2003
What my feelings tell me is right	56 %	57 %	61 %
Whatever does the most good for most of people	14 %	13 %	14 %
Conforms to "the golden rule"*	15 %	17 %	9 %
Customary behaviour in our society	10 %	6 %	7 %
In accord with my religious beliefs	4 %	1 %	1 %
About the same as what is legal	1 %	6 %	8 %
Corresponds to my self-interests	-	-	-
Contributes most to my personal liberty	-	-	-
What I want in that particular situation	-	-	-
Total	100 %	100 %	100 %

\* "Always treat others as you would like them to treat you" or in most commonly stated form:  
 "Do unto others as you would have them do unto you"

Replies can be categorized into three kinds: objective, subjective or objective-subjective answer. Objective means answers referring to something that is personal or internal to the respondent. Subjective means something that is personal or internal to the respondents. This rough division shows that more than a half of the respondents in each sample defined ethical as "what my feelings tell me is right". This finding indicates of the dominance of an *individualist* or *emotive ethics*.

This way to define ethics is not without some serious problems: based on emotive (or subjective) theory of ethics it is not possible to derive general or universal ethical principles or norms guiding behavior. Subjective feelings can't give a constant base for ethical evaluation and reasoning. Its consequence at the individual level can be as well a rough egoism as altruism to give the extremes of the continuum. Individual feelings as a main criterion for right or wrong leads to contradictions between the rules of business life in most cases. The final criterion then in fact would be the moral sensitivity of an individual manager. If the individual frame of reference were the final criterion for ethical evaluation, the manager would be very alone with his moral problems. It can be also asked if the subjective feeling would be enough in dealing with multiple stakeholders as well as with competitor in the market place.

The Golden Rule (GR), representing more objective interaction-based interpretation about ethics, came up as second in the 1981 and 1993 sample and third in 2003. It is endorsed in one form or another by most cultures and major religions (versions of GR can be found in the Bible, the teaching of Confucius, Islamic and Indian writers, and in numerous other ancient sources) and is still espoused by philosophers, contemporary business ethicists and popular business authors. Extended with Kant's second formulation of the Categorical Imperative, the Formula of Humanity as an End in Itself (equaling closely to principle of universability), it corrects some of GR's defects and continues to appeal to GR as a fundamental moral principle (Bruton, 2004). Another notion is, however, that its ranking in the 2003 sample was considerably lower than in the two earlier gathered samples. Together with the finding that equaling 'ethical' more frequently to 'legal' in the 2003 sample may indicate the development of Finnish society towards a more post-Christian stage. However, the overall results seem to tell something of the homogeneity of the Finnish culture.

**Are there Unethical Practices in Business Life?**

The question in the subtitle was presented as such to the respondents. The results are seen in Table 4 with a very clear picture: some 90 % of the respondents in each sample were in the opinion that there are unethical practices (some or several) in business life. Only 4-6 % said that there are no unethical practices in use. Compared these figures for example with the Brenner & Molander 1977 study conducted in the US study covering 1,200 respondents from their business life, where 27 % answered that there are none unethical practices in business, the responses indicated much more critical standing in Finland than in the U.S.A. One conclusion may be that unethical practices in business have become more invisible and control by i.e. mass media tighter than what it used to be. The interest of general public in business has also grown even before the recent scandals.

TABLE 4. ARE THERE UNETHICAL PRACTICES IN BUSINESS LIFE?

	1981	1993	2003
No	5 %	4 %	6 %
Yes, some	83 %	80 %	79 %
Difficult to say	5 %	5 %	8 %
Several	7 %	12 %	7 %
Total	100 %	100 %	100 %

**Has the Ethical Level of Business Changed?**

The time period in this item was the last decade. The overall picture is encouraging: more than a half of the respondents considered the ethical level of business somewhat or considerably higher than 10 years earlier. Proportion of those respondents who evaluated it to have maintained the same varied from 14 to 27 % and those who assessed it to be lower (somewhat or considerably lower) varied from 17 % to about one third of the respondents. The differences were not significant as to various age groups, industry types or company size according to Chi square analyses.

TABLE 5. THE ETHICAL LEVEL OF BUSINESS TODAY COMPARED TO THE SITUATION TEN YEARS AGO

	1981	1993	2003
Much lower	1 %	7 %	2 %
Somewhat lower	22 %	27 %	15 %
The same	23 %	14 %	20 %
Somewhat higher	49 %	46 %	53 %
Considerably higher	6 %	6 %	10 %
Total	100 %	100 %	100 %

The same mostly positive development was expected to continue from 2003 on (Table 6). Unfortunately this item was not presented in the 1981 and 1993 surveys.

TABLE 6. THE DEVELOPMENT OF THE ETHICAL LEVEL DURING THE NEXT 5 – 10 YEARS.

	2003
Will be much lower than now	2 %
Somewhat lower	5 %
The same	28 %
Somewhat higher	61 %
Considerably higher	4 %
Total	100 %

**What are the Unethical Practices and what are the Main Reasons for them?**

The respondents were asked to rate what kind of conducts they would like to eliminate in the first place. This item was based on the list of ten alternatives and open-ended answers (“others, what?”). Each respondent was able to mark all practices he/she wanted to eliminate. Table 7 gives the frequencies in percentages for 1981, 1993 and 2003, respectively. The changes in rankings are given in Table 7, too.

TABLE 7. WAYS OF CONDUCT TO BE ELIMINATED.

	1981	1993	2003	Change in ranking 1981-93	Change in ranking 1993-03
Misleading advertising	74 %	60 %	51 %	-2	-3
Tax dodging	67 %	63 %	75 %	-	+1
Inaccurate fulfillment of contracts	52 %	42 %	35 %	-1	-3
Neglecting environmental protection	47 %	66 %	65 %	+3	+2
Making use of political connections	37 %	39 %	21 %	-	-5
Industrial spying	34 %	38 %	52 %	-	+3
Giving and receiving personal benefits (such as gifts, entertainment, travels etc.)	33 %	37 %	33 %	-	-
Buying an employee in order to get information	30 %	28 %	28 %	-	-1
Bribing in countries where it is customary	10 %	15 %	29 %	-	+1
Means of limited competition (e.g. by fixing prices, Regulating products or markets)	8 %	35 %	39 %	+2	-
Something else	7 %	9 %	10 %	-	-

The results show that the awareness of environmental problems grew considerably from 1981 to 1993 and has also maintained its position in the 2003 sample ranking already second tax dodging. Other visible changes can be seen in the cases of 'inaccurate fulfillment of contracts' and 'misleading advertising', both being less frequently mentioned than in the previous survey. 'Industrial spying' and 'bribing in countries where it is customary' are more often mentioned in the more recent surveys presumably indicating the globalization trend of economy meaning more international business operations than before.

On the other hand, 'giving and receiving personal benefits' was not mentioned more frequently in the 2003 survey than 22 years earlier. Another big change has taken place in 'making use of political connections'. This change may indicate the professionalisation of management practice. It is much more demanding and full-time effort compared the situation two decades earlier. This differentiation trend has also made politics more or less a full-time job. Finland has also earned the title of a least corrupted country in the latest global corruption reports from the late 1990's on ([www.globalcorruptionreport.org/](http://www.globalcorruptionreport.org/)).

It is clear that the new institutions established after the early 1980's and exercising public control i.e. in advertising, consumer protection. An increasing public interest in the operations of business enterprises and large companies in particular may play an important role. In terms of open-ended answers, a variety of observations occurred. Some 10-15 % of the respondents in each sample mentioned some other practices they would have liked to eliminate such as 'unfair rewarding and golden handshakes' and 'black payments' to children as labor force. Several respondents put their finger on illegal terminations especially as a means to improve the performance of the firm. 'Wild cat strikes', 'wrong information about one's competitors' and 'manipulation of financial data was also referred to several times.

There has been a widely discussed tension for managers in situations, where a conflict between the interest of one's company and one's own personal conviction exists. In the three samples, competitors were mentioned most often as a target group for this kind of contradiction. Still majority of the respondents had experienced this situation seldom or never, but almost one fifth of the respondents said this to have taken place often in the 1981 and 1993 samples and fewer (13 %) in the most recent 2003 sample (Table 8).

This finding is not consistent with some earlier studies. For example, in the Brenner & Molander survey cited earlier the most frequent conflicts had been in relation with superiors and customers, competitors coming as fifth in this HBR list. Once again, there were generally speaking no relationships between the frequency of experienced conflicts and the most background variables (type of industry, age of respondents, size of company) in the Finnish surveys. Those having positive religious attitudes fall into conflicts more frequently between company demands and own personal convictions in the 1981 sample, but the item concerning respondents' religious attitudes was not presented in the 1993 and 2003 surveys any more. A possible simple conclusion from the 1981 survey could be that those with very positive religious attitudes (Lutheran in this case) have taken a different stand toward the

conflicts. They had evidently more demanding personal moral standards than their counterparts and have based on taking a more moral standing in business life and in life in general.

**TABLE 8. CONFLICTS BETWEEN INTERESTS OF ONE'S COMPANY AND ONE'S PERSONAL MORAL CONVICTIONS.**

	often (%)			seldom (%)			never (%)		
	1981	1993	2003	1981	1993	2003	1981	1993	2003
Competitors	19	19	13	54	57	63	27	24	24
Employees (peers, subordinates)	6	7	6	64	59	56	30	34	39
Customers	7	8	4	59	61	58	34	31	38
Suppliers of material and services	7	8	8	56	58	59	37	34	32
Agents and representatives of the company	8	8	5	51	55	55	41	37	40
Superiors	4	5	2	49	55	53	47	39	45
The authorities	5	7	5	26	43	28	69	50	67
Owners	5	4	3	26	25	38	69	71	59
National interests	2	3	1	22	23	26	76	74	74

Table 9 gives an overview about the most influential experienced factors behind unethical decision-making and unethical practices at the company level. For simplicity reasons, a five alternative scale has been reduced by combining 'very much', 'rather much'.

**TABLE 9. THE MOST INFLUENTIAL FACTORS IN UNETHICAL DECISION MAKING AND UNETHICAL PRACTICES IN COMPANIES.**

	much (%)			to some extent(%)			little (%)		
	1981	1993	2003	1981	1993	2003	1981	1993	2003
Behaviour of superiors	60	65	72	20	15	14	20	20	14
The current 'moral climate' of society	46	53	51	44	27	37	10	20	12
The prevailing 'ethical climate' of the industry ('general notions')	46	51	53	39	26	33	15	33	14
Company policy	42	52	58	31	16	25	27	32	27
Behaviour of peers at the same organisational level	30	33	41	48	30	38	22	37	21
Individual financial situation	23	29	29	49	31	43	28	40	28

The most influential perceived factor in all three samples was the behavior of the superior. The role of the superior as a role model for the rest of the organization was highlighted increasingly and systematically from 1981 on. All other factors were considered less important. The difference was statistically significant in relation to all other alternatives (by using answers from the full answer scale) in all three samples. Thus, morality seems to be based more on examples than orders enforcing the old saying "if you want to be ethical, find an ethical boss". This finding is mentioned in several other studies as well (Brytting, 1998; Ford & Richardson, 1994; Lewis, 1989; Lindegren, 2004; Sims, 2003; Soule, 2002).

**How to Improve the Ethical Level of Business Life?**

A mainstream approach to try to improve the ethical level of corporations has been to draw codes of ethics. Their primary task is to communicate that the company and its management consider high moral standards as an essential component in business operations. These codes of conduct have become so common over the past decade that if there is none the general interpretation tends to see it as a signal about these issues not being important for the company.

On the other hand, numerous recent ethical breeches by corporate governors at the highest levels have called into question whether "egoism, cynicism and rampant materialism have given way to another set of values" (Emerson & Conroy, 2004). Emerson and Conroy further claim that each decade seems to have its own set of

scandals with a optimistic notion that cycle of reform and altruism would occur in the near future in the business world.

TABLE 10. WHAT KIND OF MEASURES WOULD YOU IN YOUR OPINION HAVE AN IMPROVING EFFECT ON THE ETHICAL CONDUCT OF THE ECONOMY?

	Having a strong impact (%)			Having some impact (%)			Hardly any impact at all (%)		
	1981	1993	2003	1981	1993	2003	1981	1993	2003
Company-wise ethical principles of operation	49	58	60	40	38	36	11	4	4
Under-graduate management education (universities and colleges)	43	41	42	48	52	52	9	7	6
Post-graduate management education	41	35	39	50	55	53	9	10	8
Bringing matter up for public debate	36	49	52	54	43	42	10	8	5
Industry-wise ethical principles of operation	32	27	33	55	58	58	13	15	8
Legislation	21	21	26	56	60	65	23	19	9
Profession-wise 'code of honor' (e.g. engineers, accountants)	16	17	12	42	46	51	42	37	37
A national 'code of honor' for the management level	11	13	17	48	46	47	41	41	36
Creating popular movements or action groups	9	13	9	36	43	32	55	44	59

Table 10 gives a message that there is more trust in the positive impact of company-wise ethical principles than 22 years earlier. This may also indicate that there was very few examples about company-wise codes of ethics in the early 1980's compared with the situation now. There is a strong evidence about company-based codes of ethics being "more hopeful than helpful". However, this means was perceived stronger than all other ones given in Table 10. This finding may also relate to opportunities to control operations. It can be noted for example that the majority of the respondents in all three samples found legislation having only some impact. As indicated in Table 3, only a few respondents equaled ethical to legal. This figure has a growing trend, however, because the proportion has grown from 1 % to 8 % in 22 years time.

## Discussion and Conclusions

In all, data gathered from three different decades showed more similarities than differences. Changes appeared to be slow, but a clear tendency was a believe that business ethics has become and will become higher over time. A vast majority agreed with the perception that there are unethical practices in business life.

For a majority of respondents "ethical" meant something subjective. This means that moral reasoning and action get their primary content through feeling rather than through knowledge or reasoning. Managers thus nominate themselves to be in control of ethical level in their companies and lives. This can lead in practice to many interpretations about what is wrong or right in each situation. Another outcome is that emotive-subjective standing inevitably brings in relativistic and situational characteristics. Thus, managers tended to be to a certain extent ethical relativists if not representing ethical pluralism.

On the other hand, the homogeneity of the Finnish society has evidently narrowed down the diversity of the various interpretations so far. This emerged in this study also in terms of the relationship between ethical views and used background variables: there were no statistically significant differences between the respondents from various age groups, industry types nor size of the company unlike in some other studies (e.g. Longenecker et al., 1989).

Northern Europe has a long tradition of Kantian duty ethics focusing on "external principles rather than 'internal' principles' (virtues) by emphasizing timeless and universal principles instead of special, concrete and separate issues, which were cut out of philosophy" (Elenius, 2003). A purely rational basis for ethical judgment may invite and encourage minimalistic ethical principles instead of tolerance and respect of other cultures by highlighting applying its imperative regardless of circumstance, personal inclination, desire or purpose. "Duty is the necessity of

acting from respect for the law". In this 'geography of moral', Elenius divides Europe into two blocks, areas of law and areas of virtue with northern protestant states belonging to the previous block.

The rapid globalization of economy will certainly challenge this traditional maintaining of moral ideas. Business ethics has been strongly a national cultural phenomenon, but this will necessarily not last any more in the near future. However, another notion of interest in these surveys was that ethics was considered to be something higher than just legal. The proportion of those respondents who equaled ethical to legal grew considerably from the 1981 sample to the 2003 one.

It is highly evident, however, that the contemporary confluence of escalating economic globalization and ethical pluralism necessarily included in this development will be at the origin of new types of ethical challenges that will confront business world, both in practice and in theory. One of the challenges arising from this megatrend has to do with cultural diversity (González, 2003). It has been said that the success of economic globalization tends towards increasing social and cultural homogeneity. To the extent that cultural diversity is seen as an asset this global trend may contradict the efforts to respect cultural pluralism. Multicultural, pluralistic society could mean society, where ethical consensus may apparently be reduced to a minimum. This may badly threat or even exclude good life.

González (2003) has indicated, however, the ambiguity and the double meaning of the expression "ethical pluralism". She calls it "existential" in the sense that the expression refers to plurality of lifestyles and "epistemological" in the sense that it refers to the variety of moral theories or moral philosophies. She further argues that ethical minimalism, despite its emphasis on tolerance and justice, does not take pluralism seriously into account in present-day society. Ethical norms are necessary, but not sufficient in themselves to encourage either justice or tolerance nor are they sufficient to inspire and encourage good practices and sound regulations. By projecting the idea of globalization for today's pluralistic society means rather bringing together diverse lifestyles within a common political framework. Thus, the question remains if it is possible to expand business while respecting cultural diversity and to what extent is ethical pluralism compatible with the globalization of business?

Business is a practice exerted by moral agents and inserted in moral contexts. Therefore, it is subject not only to economic criteria, but moral criteria as well. As to ethical pluralism, virtue ethics is supposed to offer much more than minimalism, which has the tendency to see the social risks of ethical pluralism and tries to overcome them by speaking of a moral minimum. According to González, this view actually assumes a static view of ethics, forgetting that human beings can also learn and change their views over time, and they often do when they find something better. Furthermore, from epistemological perspective, minimalist ethics has the tendency to present itself as a technical knowledge, forgetting that ethics is primarily not a matter of experts but a human matter allowing and welcoming a serious dialogue about ethical issues instead of a rigid 'politically correct' language.

The new economy is said to be in itself neither good nor bad, but laden with opportunities. These include "improving the standard of living, creating an environment in which sharing, trusting and serving others is easier, furthering transparency and increasing empowerment, with individual dignity as the ultimate beneficiary" (Argandona, 2003). However, there are also possible risks and dangers very visible in business operations such as unnecessary destruction of opportunities, encouraging disloyalty and opportunistic behavior, violating copyright or privacy rights, increased insecurity and uncertainty.

Thus, a continuous dialogue is necessary at various levels to ensure the creation of the moral fundaments in which the authenticity of daily practice is continually debated and tested. Management and employees that dare this responsibility literally are working towards a better company. They are developing the ability to resist the pressure of one-sided managerial decisions. That way, long-term thinking becomes realistic and the continuity of company activities is protected. In this way, a company is able to integrate the common human interest into the expression and implementation of high ethical conduct.

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# Why Do People Believe IT- Enabled Privacy Intrusion as Ethical or Unethical

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## Abstract

The benefits of speed, increased availability of data have thrown some practical challenges, to issues of piracy, privacy intrusion, accuracy and security [8]. How the individuals deal with these issues is a function of their ethical logic or framework that is used to address these issues. Violation of privacy in the workplace is one such major ethical issue that has arisen in the context of IT usage. Since the personal norms and cognitive maps are important, we explore the mental frameworks that people use for their perception of ethicality for privacy intrusion by the use of IT. Hence the paper also explores the cognitive logics that people use for their perception. Thus, the paper reports the findings of 12 in depth interviews of executive working in different IT firms was conducted to find out whether people perceive intrusion of privacy as ethical or not, and the logic or personal norms that people use for their perceptions.

## Introduction

Change in material culture like technology is driven by the needs of efficiency, however along with the technological change the social and normative culture too needs to change to make the technology truly effective. The theory of cultural lag postulates that material culture like technology changes very fast however the non-material culture like social norms and values take much longer to change. Information technology too has given us the advantages of speed, time and accessibility at a level which was inconceivable till very recently, however the concomitant social and ethical issues of piracy, intrusion of privacy and accuracy too have become increasingly significant, which need to be addressed both at the level of laws and social norms. With the introduction and use of technology are sought to be resolved through old paradigms, which applied to the older social order.

Kohlberg's model [7] of cognitive development tested over the last 30 years emphasizes the cognitive development or reasoning aspect of moral decision -making. It addresses how the cognitive processes of moral decision-making become more complex with development. The emphasis here is on the cognitive decision-making processes, the reasons an individual uses to justify a moral choice, rather than the decision itself (e.g., the outcome). Kohlberg proposed that people go through stages of moral development, and naturally the stage of moral development will influence his decision-making process. His framework provides three broad *levels* of cognitive moral development; each composed of two *stages*. Moral development involves the individual's passage from stage to stage in an invariant irreversible sequence. The profile of an individual represent a dominant stage the person is in, a stage the person is leaving, and a stage he or she is moving into. Though this process the individual develops a personal philosophy.

Thus, an individual philosophy is likely to influence the decision he/she takes in everyday course of action particularly when faced with a situation of ethical dilemma. Based on the various prevailing theories in the field of ethical decision-making, different researches have identified and used various frameworks (e.g. Utilitarianism, Justice, Kant Imperative, Duty etc.), which can be used to explain and guide individual's ethical decision-making process.

Privacy intrusion is one of the major ethical issues that have arisen in the context of IT usage. As some economists point out, soon we will be required to pay for our privacy. Let us just briefly examine this issue.

## Privacy

Alan Westin [2], defined privacy “as the desire of people to choose freely under what circumstances and to what extent they will expose themselves, their attitude and their behavior to other”, what things can people keep to themselves and not be forced to reveal to others [8]. Privacy is one fundamental need that comes in conflict with the value of transparency and openness. Privacy may be understood as that where others do not have access to oneself or to information about oneself. These are our own private thoughts that are never disclosed to anyone, or at best are shared with loved ones [10]. Privacy is a special kind of independence, which provides autonomy in few personal and spiritual concerns, it provides a reserve against the outside world. Privacy is an inherent point of freedom, it provides the opportunity to freely keep one’s thoughts, feelings and behavior. It is necessary for autonomy of an individual; a person cannot exercise it unless he/she has privacy. Kant would argue that autonomy is one among many other values, but fundamental to what it means to be human, to our value as human beings, autonomy is inconceivable without privacy [5]. Viewed in this light, privacy is fundamental right that needs to be protected.

Two forces threaten our privacy. One is the growth of information technology, with its enhanced capacity for surveillance, communication, computation, storage and retrieval. A second and more insidious threat is the increased value of information in decision-making. Information is increasingly valuable to policy makers; they convert it even if acquiring it invades another’s privacy [8]. Computing and communication technologies enable the collection and exchange of personal information on a scale unprecedented in the history of civilization. Thus there is increased potential for violating the privacy of individuals and groups [9].

IT has changed the public’s perception of privacy. Organizations are faced with completely new policy decisions about which actions can be deemed damaging to individual’s privacy and which are merely inconvenient [1]. Currently, many organizations use the information gathered as a basis for criticism. Companies will begin to realize that it is more motivating for employees to be coached rather than reproached [4].

Monitoring employees by checking their electronic mail messages has been a particularly sensitive issue. Studies have shown that employees have sued employers, claiming that supervisor have invaded their privacy by monitoring their email [13]. Employee reactions to computer aided monitoring suggest a potential for negative employee perceptions of the monitoring activities and use of the data by management. For example, the titles of many articles published on electronic employee monitoring contain negative terms such as “Big Brother” and “Electronic Sweat shops” [3]. One study concludes: ‘ Electronic monitoring may create adverse working conditions such as paced work, lack of involvement, reduced supervisory support, fear of job loss, reutilized work activity and lack of control over tasks” [11].

In many ways, privacy is an elusive concept that is, until a person’s privacy is threatened. Privacy can be identified as an instrumental good (a means to some end) from privacy as an intrinsic good. In 1968, Charles Fried argued that to have relationships based upon love and friendship, privacy must be valued without this necessary right, no solid relationship in society can exist or flourish. Privacy protects us from the prying eyes and ears of governments, corporations and neighbors. Within the walls of privacy, we may experiment with new ways of living that may not be accepted by the majority. Privacy, autonomy and sovereignty it would seem come bundled together [10]. Since technology has provided many opportunities for invading privacy of the workers in the workplace, it is important to assess the breadth and depth of privacy intrusion that can be considered ethical or vice versa.

Though the concepts of privacy intrusion have been issues in the past, they have gained a special significance in the context of use of information technology. The traditional notion of the two cannot fully explain the modern day manifestation of these issues. Till now studies of cognitive frameworks have identified certain frameworks and asked respondents to choose from whose frame works only. Imposing preconceived frameworks on respondents however gave us some mismatched results. Thus the previous work has tried to impose traditional frameworks on new issues in the context of IT. However, what is required is to explore the cognitive processes that go on in the minds of people for making decisions on privacy intrusion related issues. In this paper we first explore whether people perceived privacy intrusion as ethical or not. Since the personal norms and cognitive maps are important, we next explore the personal norms (mental frameworks) that people use for their perception of ethicality. Thus, the paper reports the findings of in depth interviews conducted to find out whether people perceive these various situations as ethical or not, and the logic or personal norms that they use for their perceptions.

## Methodology

For the present work respondents were presented with one situation of privacy intrusion issues. In this situation individual is asked to consider himself/herself as an 'actor' who intrude in the privacy of its employees. After testing the perceived ethicality, respondent were asked for the reasons of their perception of ethicality and the responses were analyzed using grounded theory. Grounded theory is a form of content analysis to find and conceptualize the underlying issues in the data [6]. Grounded theory "is a qualitative method that inductively discovered by careful collection and analysis of qualitative empirical data. This methods does not being with theory, and then seek proof. Instead, it begins with an area of study and allows theory to emerge from that area of study" [14] (p. 23). In grounded theory, analysis involves searching out the concepts behind the actualities by looking for codes, then concepts and finally categories [14]. The data has been collected from 12 executives, through interview from six IT organizations based in North, South and West region of India. Out of 12, 9 respondents were male, and only 3 respondents were female. Mostly the respondents were from the age group of 25-30.

The situation described was coded as follows:

Privacy Intrusion perceived ethicality: **A, 1,2,3...**are the respondents codes, **N** for No and **Y** is for Yes and finally small **a, b, c...** is number of reasons given by particular respondent. Thus A3Ya, means that perceived ethicality for situation of privacy intrusion, for respondent 3 who perceived it as ethical, the first reason.

The codes are then analyzed and those that related to a common theme are grouped together, this higher order commonality is called a *concept*. Concepts are then grouped and regrouped to find yet higher order commonalities called *categories*. It is these concepts and categories that lead to the emergence of a *theory* [14].

In the subsequent sections we report the analysis and results of our study.

## Results

The responses are reported in Table 1

TABLE 1: PERCEIVED ETHICALITY FOR INTRUSION OF PRIVACY

Yes			No		
Id	Codes	Categories	Id	Codes	Categories
A3Ya	Its necessary to keep eye on employees	Keeping eye on employees	A1Na	It will generate a feeling of insecurity	Insecurity feeling
A4Ya	Creates transparency in the system.	Transparent culture	A1Nb	It will create inflexibility	Inflexibility
A4Yb	Will help management in better decision-making.	Decision making	A2Na	It will affect creativity of employees.	Hamper creativity
A4Yc	Helpful in controlling no value added activities.	Controls information	A2Nb	It makes them feel treated badly.	Feel bad
A5Ya	Will reduce time.	Reduce time	A7Na	Trust is in doubt	Trust is needed
A5Yb	Help in checking that employees are not sharing sensitive and confidential matters.	No misuse of information	A8Na	Monitoring employee will hamper their freedom.	Hamper freedom
A6Ya	Transparency increases.	Transparent culture	A8Nb	It will be big bossing on employees.	Big bossing
A6Yb	Monitoring by computers reduces the chances of biases.	Reduce biases	A12Na	Trust and understanding is required	Trust and understanding needed
A6Yc	It is more accurate and consistent	Reduce biases			
A9Ya	Employees are not sharing sensitive information	No misuse of data			
A9Yb	Is helpful to check that is every thing is going ok	No misuse of data			
A10Ya	Reduce biases	Reduce biases			
A10Yb	Employees need to be monitored	Necessary to monitor			
A11Yb	Necessary for organizational security purpose.	Security purpose			
A11Ya	Required by the company to monitor its employees.	Rights of company			

Out of 12 respondents, 7 considered this activity of privacy as an ethical activity, where as 5 considered it as unethical activity. Respondents, who consider this activity as ethical, believe in transparent culture and according to them monitoring employees in work place create that kind of culture. By monitoring management can also keep an eye on its employees and can check whether they are using company resources properly or not. Respondents also believe that it's the "rights" of the organization to monitor its employees, where as on the other hand respondents who don't support this activity say monitoring will bring a feeling of insecurity among the employees and hamper their creativity. They also believe that there should be trust between organization and its employees, and by monitoring the activity of its employees organization is breaking that trust. Thus the dominant frameworks used in this context are transparency, organization rights and organizational efficiency.

## Conclusion

In this paper we tried to look at logics individual uses for considering intrusion of privacy as ethical/ unethical activity. It seems that in the intrusion of privacy situation where the individual is acting as an 'actor' and he him self is intruding the privacy of others in the workplace, in this kind of situation where self-interest is the guiding principle in deciding the ethicality of an issue and not a set of independent standards or values. This could be explained on the basis of changing situation and no clear social norms of right or wrong in the context of IT. The material worlds (IT) changes fast and the non-material world (values and beliefs) take a while to fall in place. In this time of flux, self-interest might govern ethical decision-making. At the individual level it looks like the psychological defense mechanism of neutralization is at work. Individuals, to lessen the impact of norm-violating behaviors upon their self-concept often use the neutralization framework as a technique. This is a rationalization process. The most common perceptual components of neutralization are (1) Denial of responsibility: where individuals might argue that they are not personally accountable for their actions because of circumstances beyond their control. (2) Denial of Injury: where the individuals contend that their action is not important and is an acceptable violation of normative behavior as probably no one suffers. (3) Denial of victim: where individuals condone their action by arguing that the violated party deserved whatever happened, i.e, a form of retributive justices is provoked. (4) Condensing the condemner: where individual points out that that they are not alone in the unethical action and that other are involved in similar disapproved behavior. Individual seems to justify themselves by saying that intrusion of privacy is necessary for organization efficiency, security and safety. No doubt to maintain the safety within the organization its become necessary to monitor the individual working in the organization, but does it gives the right to the management to monitor its employee while they are working. More over the management should not over look the side effect that can be caused due to monitoring. Ottensmoyer and Heroux (p 523) [12] have stated "computer surveillance and related forms of testing and controlling workers raises serious ethical dilemmas for thoughtful managers". One study concluded: "Electronic monitoring may create adverse working conditions such as paced work, lack of involvement reduce support, reduced supervisory support, fear of job loss, reutilized work activity and lack of control over tasks" [11].

Thus it seem in the case of a situation where ones own self acts as a violator of ethical norms the impact is significantly diminished.

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# A New Challenge For the Corporate Leaders, Managers, Accountants and Auditors In the Times of “Enron’s Ghosts”

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## Abstract

The objective of this paper is to highlight the recent trends in financial reporting mitigation. It covers the current development in the regulatory environment, speeded up by the recent fraud scandals and focuses on how these changes nowadays affect executives, accountants and auditors on a worldwide level. By reading this paper a reader should be provided with an overview of how economic crime is being addressed in today’s business world. In order to penetrate into this issue, the paper firstly introduces the changes in approaches to fraud that have been evoked during the last decade in the minds of managers, investors, auditors and regulators. The paper stresses the importance of paying attention to fraudulent activities reflected in financial reports of a company.. To foster the appealing currentness of this issue certain statistics of economical crime are included in the appendices.

## Introduction

As defined by International Accounting Standard 1 (IAS 1), “*financial statements are a structured representation of the financial position and financial performance of an entity.*” [16] The objective of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions. Financial statements also show the results of management’s stewardship of the resources entrusted to it. This information, along with other information in the notes, assists users of financial statements in predicting the entity’s future cash flows and, in particular, their timing and certainty. If financial statements are audited, the auditor’s opinion enhances the credibility of the financial statements. While the auditor is responsible for forming and expressing an opinion on the financial statements, the responsibility for preparing and presenting the financial statements is that of the entity’s management. The audit of the financial statements does not relieve management of its responsibilities according to the ISA 200. The responsible should be aware of these facts under any circumstances.

In the past, senior executives, shareholders, auditors and regulators alike tended to view fraud and misconduct as anomalies – infrequent failures of internal controls. Companies have not viewed fraud prevention as a primary objective of internal control activities. As a result of the large number of corporate scandals reported in the early 21st century, in spite of it fraud and misconduct have evolved into mainstream risks linked closely to market, credit and legal risks as well as risks to reputation. [23, p.5]

Economic crime, or fraud, is sometimes—and mistakenly—seen as a “victimless” crime, especially in larger companies. However, in the light of the Enron and WorldCom scandals it has become clear that economic crime is like any other crime: it has its perpetrators, and it has its victims. It is not rare at all, that fraud might be committed by managers, supervisors or senior employees with knowledge, access, and responsibility.[30].

Recent cases of corporate failure such as Enron, HIH, Tyco, Vivendi, Royal Ahold and Parmalat have led to the loss of credibility in financial reporting. Financial reporting had been believed to disclose the financial statements of an entity including any other information that the managements decides to disclose along (such as annual report, specific group reporting package or environmental reports and value added statements in compliance with the accepted standards. As a consequence, as the recent International Federation of Accountants (IFAC) publication *Rebuilding Public Confidence in Financial Reporting: An International Perspective* pointed out, the reduced confidence in financial information and corporate disclosure has produced an investor retreat and resulted in an increased cost of capital, which in turn has led into reduction of the economy’s productivity [17] (p.5) Another,

even more recent IFAC study focusing on enterprise governance explored the reasons of strategic failure such as corporate governance failure and fraud (for results of this study see Appendix 1).[18]

Almost all failures are the result of the combined effect of failures in business, failures in governance and failures in reporting.

However, there appears to be a close linkage between business and reporting failure such that many examples of misreporting, particularly when large sums are involved, appear to be part of the management policies that produced the business problem [17] (p. 5).

In today's business environment, fraud is a troublesome matter for all companies, public and private. Therefore the control factors are now rapidly replacing insufficient compliance concerns as the primary drivers of antifraud programs. A number of significant legal, regulatory and standards-setting actions are combining to pressure all players in the financial-reporting process – from directors and senior management to internal and independent auditors – to step up their efforts to combat corporate fraud and misconduct. To a growing extent, regulators and investors are now demanding proactive antifraud programs characterized by a strong focus on the prevention and timely detection of fraud. Today's antifraud environment is characterized by a shift from compliance-driven identification and investigation of incidents to proactive prevention and detection embedded into an organization's internal controls. [23] (p. 4)

#### **What is Fraud, Misconduct or Misstatement?**

For purposes of the Statements on Auditing Standards No. 99 (SAS 99), fraud is defined as an *“intentional act that results in a material misstatement in financial statements that are the subject of an audit”*. Also ISA 240 states that fraud refers to an *“intentional act by one or more individuals among management, those charged with governance, employees, or third parties, involving the use of deception to obtain an unjust or illegal advantage.”* Although fraud is a broad legal concept, for the purposes of ISA 240, the auditor is concerned only with fraud that causes a material misstatement in the financial statements.

Two types of misstatements are relevant to the auditor's consideration of fraud:

1. Misstatements arising from fraudulent financial reporting, and
2. Misstatements arising from misappropriation of assets.

Materiality refers to the extent of a misstatement. Information is material if in the case of not being disclosed could influence the economic decisions of users taken on the information provided by financial statements.

The Auditing Standard 306 (AUS 306) issued by the Australian Accounting Research Foundation states that: *“materiality means, in relation to information, that information which if omitted, misstated or not disclosed has the potential to adversely affect decisions about the allocation of scarce resources made by users of the financial report or the discharge of accountability by the management or governing body of the entity.”* [3] Further, IAS 1 considers material omissions or misstatements of items to be material *“if they could, individually or collectively; influence the economic decisions of users taken on the basis of the financial statements.”* [16]

When the item could be considered material for reporting depends on comparison of a misstated item (which is thought to be material) with such factors as the entity's earnings, total revenue, total assets and equity.

The material misstatement can be originated in two ways: first, by unintentional error; second, by an act of fraud.

The term "error" as defined in International Standard on Auditing No. 240 (ISA 240) refers to an *“unintentional misstatement in financial statements, including the omission of an amount or a disclosure”*, such as the following:

- A mistake in gathering or processing data from which financial statements are prepared.
- An incorrect accounting estimate arising from oversight or misinterpretation of facts.
- A mistake in the application of accounting principles relating to measurement, recognition, classification, presentation or disclosure.

#### **Fraudulent Financial Reporting**

Misstatements arising from fraudulent financial reporting are intentional misstatements or omissions of amounts or disclosures in financial statements designed to deceive financial statement users. Fraudulent financial reporting may be accomplished by the following:

- Manipulation, falsification, or alteration of accounting records or supporting documents from which financial statements are prepared.
- Misrepresentation in or intentional omission from the financial statements of events, transactions, or other significant information.
- Intentional misapplication of accounting principles relating to amounts, classification, manner of presentation, or disclosure. (SAS no. 99)

Fraudulent financial reporting need not be the result of a grand plan or conspiracy. It may be that management representatives rationalize the appropriateness of a material misstatement, for example, as an aggressive rather than indefensible interpretation of complex accounting rules, or as a temporary misstatement of financial statements, including interim statements, expected to be corrected later when operational results improve.

Fraudulent financial reporting often involves management override of controls that otherwise may appear to be operating effectively.

According to ISA 240 fraud can be committed by management overriding controls using such techniques as:

- “Recording fictitious journal entries, particularly close to the end of an accounting period, to manipulate operating results or achieve other objectives;
- Inappropriately adjusting assumptions and changing judgments used to estimate account balances;
- Omitting, advancing or delaying recognition in the financial statements of events and transactions that have occurred during the reporting period;
- Concealing, or not disclosing, facts that could affect the amounts recorded in the financial statements;
- Engaging in complex transactions that are structured to misrepresent the financial position or financial performance of the entity; and
- Altering records and terms related to significant and unusual transactions.”

#### **Misappropriation of Assets**

Misstatements arising from misappropriation of assets (sometimes referred to as theft or defalcation) involve the theft of an entity's assets where the effect of the theft causes the financial statements not to be presented, in all material respects, in conformity with generally accepted accounting principles (GAAP) according to SAS no. 99. Employees in relatively small and immaterial amounts often perpetrate misappropriation of assets. However, it can also involve management who are usually more able to disguise or conceal misappropriations in ways that are difficult to detect (ISA 240).

Misappropriation of assets can be accomplished in various ways, including embezzling receipts, stealing assets, causing an entity to pay for goods or services that have not been received or using an entity's assets for personal use (for example, using the entity's assets as collateral for a personal loan or a loan to a related party). Misappropriation of assets may be accompanied by false or misleading records or documents, possibly created by circumventing controls.

#### **Generic Fraud Schemes**

As the *PricewaterhouseCoopers Global Economic Crime Survey 2003* proved, by far the most common fraud is asset misappropriation, accounting for well over half of all cases [25] (p.7). But fraud is a very general term and in practice, economic crime can take an almost dazzling variety of forms, ranging from corruption and bribery to product piracy, industrial espionage, and financial misrepresentation. In recent years, PricewaterhouseCoopers has identified more than 150 generic fraud schemes, which fall into six basic categories:

1. Fraudulent financial reporting
2. Misappropriation of assets
3. Expenditures and liabilities for an improper purpose
4. Revenue and assets obtained by fraud
5. Costs and expenses avoided by fraud
6. Financial misconduct by senior management [23] (p.20)

Professional auditing standards (SAS 99 or ISA 240) require independent auditors to examine only two of these six areas – fraudulent financial reporting and misappropriation of assets. Senior management and the audit committee, in contrast, are in charge of all six categories.

PricewaterhouseCoopers's list of 150 generic fraud schemes and scenarios that differ drastically by product and service sector and geography. For example, sales and marketing schemes are quite common in the Asian market, whereas procurement fraud is more widespread in Central and South America. On the other hand, the types of schemes affecting a bank will differ from those affecting a manufacturer. While both companies may be obtaining assets in a fraudulent manner, the bank might do so by failing to credit interest or by charging improper fees, whereas the manufacturer may be short-shipping a distributor to obtain assets fraudulently. The typical large multinational company, as a result, faces hundreds of fraud and reputation risks. To develop scheme descriptions for your organization requires a deep knowledge of fraud, the industry or industries in which your organization operates, and the geographies where you conduct business. [23] (p.22)

#### **Environmental Conditions Typical to Fraud**

According to both ISA 204 and SAS 99, three conditions generally are present when fraud occurs. First, management or other employees have an incentive or are under pressure, which provides a reason to commit fraud. Second, circumstances exist - for example the lack of controls, not effective controls, or the ability of management to override controls - that provide an opportunity for a fraud to be perpetrated. Third, those participated are able to rationalize committing a fraudulent act. Some individuals possess an attitude, character, or set of ethical values that do not defend them knowingly and deliberately commit a dishonest act. Under regular conditions otherwise honest individuals can commit fraud in an environment that imposes sufficient pressure on them. The greater the incentive or pressure, the more probably an individual will be able to rationalize thinking over and finally starting committing fraud.

Three factors mentioned form famous fraud triangle of three conditions that indicate incentives/pressures to perpetrate fraud, opportunities to carry out the fraud, or attitudes/rationalizations to justify a fraudulent action. Such events or conditions are referred to in the auditing standards no.99 as "**fraud risk factors**." Fraud risk factors do not necessarily indicate the existence of fraud; however, they often are present in circumstances where fraud exists.

**The 3Cs Model** is another way – very similar to the one defined in ISA 204 and SAS 99 -of how to analyze causes of fraud. Fraudulent financial reporting occurs according to Zabihollah Rezaee\* for many reasons, which he groups into three broad categories - conditions, corporate structure, and choice, or the "3Cs." [27] The 3Cs model helps to explain motivations, opportunities, and rationalizations for the commission of financial reporting fraud.

Conditions are motivations and pressure to get involved in financial statement fraud. Pressures on corporations to meet analysts' earnings forecasts play an important role in the commission of this type of fraud. In several corporate cases, executives deliberately committed illegal actions to mislead users of financial statements - investors and creditors - about their poor or less-than-favorable financial performance.

Corporate Structure of an organization can create an environment that increases the likelihood that fraudulent financial reporting will occur. Given that management usually is the perpetrator of this type of fraud, it is not surprising that most incidences occur in an environment characterized by irresponsible and ineffective corporate governance. Attributes of the corporate governance structure most likely to be associated with financial statement fraud are aggressiveness, arrogance, cohesiveness, loyalty, blind trust, control ineffectiveness, and gamesmanship. Aggressiveness and arrogance can play a part in the organization's attitude and motivations toward being a leader in the field or exceeding analysts' earnings expectations. Cohesiveness, gamesmanship, and loyalty attributes increase the likelihood of cooking the books and subsequent cover-up attempts and decrease the probability of whistleblowing. Blind trust and ineffective controls can cause monitoring mechanisms - such as audit functions and the internal control structure - to be less effective in preventing and detecting fraud.

A Choice of the management is between using ethical business strategies to achieve continuous improvements in both quality and quantity of earnings and engaging in illegitimate earnings management schemes to show earnings stability or growth. Management may choose to engage in financial statement fraud when:

1. its personal wealth is closely associated with the company's performance through profit sharing, stock-based compensation plans, and other bonuses;

2. management is willing to take personal risk - such as risking indictment or civil or criminal penalties - for corporate benefit;
3. opportunities for the commission of financial statement fraud are present;
4. there is a substantial internal and external pressure to either create or maximize shareholder value; and
5. the probability of the fraud being detected is perceived to be very low.

The presence of any one of the 3Cs can signal the possibility of fraud, whereas the combination of two or more factors at any one time increases the likelihood that fraud has occurred. [27].

**Red Flags of Fraud** of Eric Krell in his article “7 Corporate Red Flags”[20] published in August 2002 issue of *Business Finance* magazine, presents seven red flags – hints that can indicate that the company has been a victim of financial fraud or may eventually lead to future fraudulent activity:

1. lax accounting (e.g. using inappropriate way to recognize revenue due to short-term performance pressures that have resulted in more aggressive accounting practices)
2. failure to anticipate cash needs (declining credit quality up to liquidity problems when focus is on P&L forecast while the balance sheet implications are overlooked)
3. supply chain blindness (financial managers should remove the IT blinders by understanding the information technology such as enterprise resource planning (ERP) systems used by their enterprise in order to be able to leverage the value of company’s actual assets and strengthen their forecasting capabilities)
4. perils of dirty data (neglecting data quality in key ERP, customer relationship management (CRM) or supply chain management (SCM) applications, while the IT systems are only as reliable as the data flowing through them)
5. draining the talent pool (human resource management and relating recruitment, staffing, training, compensation programs, benefits packages and retirement plans, which may result in poor allocation of resources or undermine employee moral and loyalty)
6. hazards of weak governance (poor corporate governance creates environment that provides opportunities for fraudulent activities)
7. ignoring the importance of crisis management (crisis can be defined as any event or series of events that negatively impacts financial results; reputation or brand; or key relationships with stakeholders; crisis management must be comprehensive, integrated throughout the organization, and flexible as it is the unexpected crisis that levels the company)

#### **Responsibility for Fraud Prevention and Detection**

The primary responsibility for the prevention and detection of fraud rests according to the professional auditing standards (SAS 99 or ISA 240) with both those charged with governance of the entity and with management. According to ISA 240, it is important that management places a strong emphasis on fraud prevention, which may reduce opportunities for fraud to take place, and fraud deterrence, which could persuade individuals not to commit fraud because of the likelihood of detection and punishment. This involves establishment of a culture of honesty and ethical behavior, based on a strong set of core values, which provides the foundation for employees as to how the entity conducts its business. Creating a culture of honesty and ethical behavior includes setting the proper tone; creating a positive workplace environment; hiring, training and promoting appropriate employees; requiring periodic confirmation by employees of their responsibilities and taking appropriate action in response to actual, suspected or alleged fraud.

Further, it is the responsibility of management to establish a control environment and maintain policies and procedures pertaining to the entity's objective of preparing financial statements that give a true and fair view (or are presented fairly in all material respects) in accordance with the applicable financial reporting framework and managing risks that may give rise to material misstatements in those financial statements.

Last but not least, it is the responsibility of those charged with governance of the entity to ensure, through oversight of management, that the entity establishes and maintains internal control to provide reasonable assurance with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations. Active oversight by those charged with governance can help reinforce management's commitment to create a culture of honesty and ethical behavior.

### Cost of Fraud

Collateral cost of fraud as the impact on reputation, business relationships, brand image, and staff morale can be more important than the direct financial loss. These can all be undermined by the occurrence or even the perception of fraud. The reported impact varies depending on the nature of the crime committed.

TABLE 3: THE COLLATERAL COST OF FRAUD

Type of loss resulting from fraud	Type of fraud that affects it the most
Reputation	Financial misinterpretation Corruption and bribery Product piracy
Brand image	Product piracy Industrial espionage
Share price	Financial misinterpretation Money laundering Corruption and bribery
Staff morale	Asset misappropriation Cybercrime Financial misinterpretation Corruption and bribery
Business relations	Financial misinterpretation Corruption and bribery Product piracy Industrial espionage

Economic crime has quickly become a major risk for today's corporations; with costs stretching far beyond the balance sheet and income statement. In fact, *PricewaterhouseCoopers Global Economic Crime Survey 2003* discovered that over one-third of the responding companies had been the victim of economic crime. What's more, almost three quarters of victims recovered less than 20% of their losses. More disturbing, perhaps, a significant number of organizations that suffered could not even provide an accurate estimate of their losses [30] (for results of this survey see Appendix 2).

A 2004 CEO survey conducted by PricewaterhouseCoopers in association with the World Economic Forum reflects just how seriously fraud and reputation risk is perceived by executive management. Of the 1,400 CEOs taking part in that study, 35% identified reputation risk as either "one of the biggest threats" (10%) or "a significant threat" (25%) to their business growth prospects. And as indicated by the spate of major frauds in recent years, a single fraud-related failure can result in a multibillion-dollar loss. In fact, a 2002 study of 663 fraud cases by the Association of Certified Fraud Examiners (ACFE) suggests that fraud can cost roughly 6% of a company's annual revenues. That figure, when applied to the U.S. Gross Domestic Product, translates into a fraud-related loss in the neighborhood of \$600 billion for U.S. - based companies in 2002 – about \$4,500 per employee.[23] (p.5)

Even though asset misappropriation is the most widely reported crime in the *PricewaterhouseCoopers Global Economic Crime Survey 2003*, the KPMG LLP survey (also performed in year 2003) clearly identifies the financial reporting swindles as being far most costly. Although only 7% of KPMG respondents said their organization had uncovered financial reporting fraud in the prior twelve months to the survey, the estimated cost of this type of fraud averaged more than \$250 million [8].

The damage inflicted by fraud goes far beyond direct monetary loss, however. Intangible costs of fraud tend to be even more severe than the direct financial loss. Collateral losses from fraud include intangible assets including business relationships, staff morale, reputation and branding, which are critical to any business. These can all be undermined by the occurrence or even the perception of fraud. Incidence of fraud in an organization invariably raises questions in employee's minds about its leadership and governance, its ethics, or as a secure environment to work. Repeated exposure to such issues can undermine years of carefully built up staff loyalty. A failure to tackle – or at least manage the risk of – fraud effectively can store up long-term operational problems for any enterprise [25] (p.10).

### **Current Global Fraud Mitigation Initiatives**

Over the past two and a half years the stream of news about Enron, Global Crossing, WorldCom, Adelphia and other high-visibility fraud cases has resulted in a tremendous loss of market capitalization.[2] (p.57). Recent corporate collapses have seriously undermined confidence in the capital markets as well as the public's trust in corporations, investment analysts, bankers, lawyers and accountants - both as preparers and as auditors of financial statements. There is now a clear need to restore confidence in capital markets and elsewhere by enhancing corporate governance in order to provide financial information of the highest quality. [10] (p.7).

Efforts to improve standards of corporate governance have been underway for many years at both national and international level. However, there has been a notable upsurge in activity since the collapse of Enron. What is of particular note is increasing international convergence. Many countries are adopting the "comply or explain" approach. This requires companies to comply with an evolving set of best practice principles rather than rule-based, inflexible legislation - or explain with reasons why they have not complied. There are, however, variations in how these provisions are implemented in different countries. The one notable exception to this principles-based approach is according to the IFAC the U.S. with the Sarbanes-Oxley Act [18] (p. 49).

A key challenge is the achievement of high minimum standards of corporate governance worldwide. The IFAC considers in its synopsis of international corporate governance developments (published as an appendix to the report on enterprise governance) the *OECD Principles of Corporate Governance* to be a welcome statement of intent in this regard. However, the authors of the IFAC report conclude that there is some way to go before these are implemented with equal rigor globally [18] (p.49).

### **The Sarbanes-Oxley Act**

To stem the tide of fraud scandals and restore confidence in the capital markets, the U.S. Congress passed the Sarbanes-Oxley Act of 2002, which clearly delineates the roles of senior management, boards of directors, audit committees and outside auditors. [2] (p.57) The act significantly focuses on the role of external auditors and their independence and relationship with members of the audit committee. It aims to strengthen the relationship between external auditors and the non-executive directors on the audit committee and to improve the integrity of company management and financial reporting [10] (p.17) Although it's not possible to detect every instance of fraud, now all parties responsible for financial reporting and internal control must exercise greater vigilance [2] (p.57).

The Public Company Accounting Reform and Investor Protection Act (Sarbanes-Oxley Act) is the most significant piece of legislation for the U.S. accounting profession since 1934 when Securities Exchange Act was adopted [1].

However, due to the globalization effects, this act concerns not only U.S. resident companies but affects the subsidiaries of companies listed in the U.S. Stock Exchange all over the world. In addition, the act also applies to foreign companies listed in the U.S. [18] (p.51). The main area of current or immediate conflict arises from this extraterritorial impact of the Sarbanes-Oxley Act. Issues arising from the need for a company to comply with the new U.S. governance regime, in addition to that in their home country, are a potential source of conflict and it is too early to know whether this will be serious or just aggravating and costly [17] (p.22). This continues to be the subject of much controversy although the Securities and Exchange Commission (SEC) has now relaxed some of the rules such as the audit committee requirements for foreign companies [18] (p.51).

Section 404 *Management Assessment of Internal Controls* of the Sarbanes-Oxley Act requires most public companies (i.e., accelerated filers that meet certain market capitalization requirements) to report annually on the company's internal control over financial reporting for fiscal years ended on or after November 15, 2004. The majority of the remaining public companies, including foreign private issuers, will be required to comply with these requirements for fiscal years ended on or after July 15, 2005 [24]. Section 404 also requires management to obtain a report from its external auditor attesting to management's assertion about the effectiveness of the company's internal control [26]. Both management's and auditors' assessment must make it into the annual report for 2004 [28].

#### **Public Company Accounting Oversight Board (PCAOB)**

The Sarbanes-Oxley Act created the Public Company Accounting Oversight Board (PCAOB), to be appointed and

overseen by the SEC. This five-member board will:

- a. Register auditors of public companies.
- b. Inspect and discipline auditors.
- c. Enforce compliance with the Securities Exchange Act of 1934.
- d. Establish standards relating to audits. [1]

In short, the PCAOB will oversee and investigate the audits and auditors of public companies, and sanction both firms and individuals for violations of laws, regulations and rules .

The PCAOB will issue standards or adopt standards set by other groups or organizations, for audit firm quality controls for the audits of public companies. These standards include: auditing and related attestation, quality control, ethics, independence and "*other standards necessary to protect the public interest.*" The PCAOB has the authority to set and enforce audit and quality control standards for public company audits. [17] (p.22)

Accounting firms that audit public companies must register with the PCAOB. The PCAOB is empowered to regularly inspect registered accounting firms' operations and will investigate potential violations of securities laws, standards, competency and conduct. Sanctions may be imposed for non-cooperation, violations, or failure to supervise a partner or employee in a registered accounting firm.

Foreign accounting firms that "*prepare or furnish*" an audit report involving U.S. registrants will be subject to the authority of the PCAOB. Additionally, if a registered U.S. accounting firm relies on the opinion of a foreign accounting firm, the foreign firm's audit workpapers must be supplied upon request [12]. Therefore, each national practice of an accounting firm, that either audits a company which is an SEC registrant or audits a significant subsidiary of an SEC registrant, is subject to the PCAOB's authority, including its monitoring process [17] (p.22).

The situation regarding the registration and oversight of foreign accounting firms by the U.S. PCAOB may get more serious in a close future. The central issue for the foreign firms is that they do not believe it appropriate or necessary that they should be subject to two monitoring regimes if the regime in their home country is one that complies with international benchmarks [17] (p.22).

This view is supported by the European Commission, which has suggested that there should be a moratorium to discuss and resolve registration issues. The European Commission also agrees with the firms' view that the U.S. approach involves major conflicts of law relating to data protection and professional client confidentiality. The Commission considers that the EU regulatory approach to the protection of investors and other stakeholders is equivalent to the U.S. rules and therefore should provide the basis for mutual recognition and European exemption from the U.S. rules. [17] (p. 22).

The U.S. has not accepted this approach and, as a result, the European Commission has indicated that the EU will have to consider parallel solutions involving the registration of U.S. audit firms in the EU [17] (p.22).

In the conclusion to its discussion on international perspective related to rebuilding of public confidence in financial reporting the IFAC stresses that neither the U.S. approach nor the European Commission's response will contribute to creating an efficient, cost-effective global capital market. Further, the IFAC concludes that whatever the outcome of the discussions on the international reach of the PCAOB will be, the fact remains that its existence provides support for those who argue that there needs to be a system of mutual recognition of regulatory regimes based on compliance with the agreed international benchmarks. And this should, according to IFAC, provide the necessary level of confidence in financial reporting required internationally, without the burden of duplication of regulation and monitoring [17] (p.22).

## **The EU Action Plan**

The creation of the single market and the breaking down of barriers not only aids legitimate business, but may also provide increased opportunities for money laundering and financial crime. European legislation has been adopted to protect the financial system and other vulnerable professions and activities from being misused for fraudulent purposes [14]. The European Corporate Governance Institute (ECGI) states that the European regulatory framework for company law and corporate governance needs to be modernized for the following reasons: the growing trend for European companies to operate cross-border in the internal market, the continuing integration of European capital

markets, the rapid development of new information and communication technologies, the recent enlargement of the EU to 10 new member states, and the damaging impact of recent financial scandals [9]. The collapse of Enron in the US and European corporate scandals (Dutch retailer Ahold and Italian agri-food giant Parmalat) have forced issues of corporate governance and financial reporting onto the EU policy agenda.

Rules and norms of corporate governance are important elements of the regulatory framework for successful market economies. Although corporate governance can be defined in a variety of ways, the European Commission communications generally refer to the mechanisms by which a business enterprise, organized in a limited liability corporate form, is directed and controlled. It usually concerns mechanisms by which corporate managers are held accountable for corporate conduct and performance [13].

Over the past decade, interest in the role corporate governance plays in economies has increased in the EU and member states, driven by factors such as the introduction of the euro, the freer flow of capital, the growth and diffusion of shareholding, the increased merger activity among large corporations and the competitive pressures of globalization. In the past, the EU policy action has been mainly to coordinate the safeguards required by member states of companies and firms with a view to making such safeguards equivalent throughout the Community. Several Company Law Directives have resulted [13].

According to the FEE discussion paper, Europe is continuing to enhance corporate governance practice through the development of corporate governance codes and “soft law” linked to the “comply or explain” principle. This approach uses disclosure, rather than legislation, as a regulatory tool [10].

In September 2001, the European Commission appointed a High Level Group of Company Law Experts, chaired by Jaap Winter (the Winter Group) [18] (p.51). At the Barcelona European Council of March 2002, it was declared that responsible corporate governance is the precondition for economic efficiency, and measures have been asked for in order to guarantee the transparency of corporate governance and corporate accounts and to better protect the shareholders and others concerned. The Commission and the ECOFIN Council in Oviedo in April 2002 agreed to extend the mandate of the Winter Group to review a number of specific issues related to corporate governance and auditing: the role of non-executive and supervisory directors, management remuneration, the responsibility of management for financial statements, and auditing practices [13]. The Winter Group presented its Final Report “A Modern Regulatory Framework for Company Law in Europe” (referred to as the Winter Group Report) in November 2002. The Winter Group Report focuses on corporate governance in the EU and the modernization of European Company Law [18].

In response to this report, the European Commission issued an Action Plan in May 2003 (“Modernising Company Law and Enhancing Corporate Governance in the European Union – A Plan to Move Forward”). Simultaneously, the Commission’s Communication “Reinforcing the Statutory Audit in the EU” was also issued in May 2003. It addresses corporate governance in relation to statutory audit, audit committees and internal control, [10] (p.7) including ten priorities for improving and harmonizing the quality of statutory audit throughout the EU, to ensure that investors and other interested parties can rely fully on the accuracy of audited accounts and to prevent conflicts of interest [9].

In its Action Plan the European Commission has concluded that there was no need for a European Corporate Governance Code as this would simply be an additional layer between international principles and national codes [18] (p.51). The Commission, however, added that “*a self-regulatory market approach, based solely on non-binding recommendations, is not sufficient to guarantee sound corporate governance...*” and that “*... the European Union should adopt a common approach covering a few essential rules and should ensure adequate coordination of national corporate governance codes.*” [9].

The main objectives of the Action Plan are:

- to strengthen shareholders' rights and protection for employees, creditors and the other parties with which companies deal, while adapting company law and corporate governance rules appropriately for different categories of company;
- to foster the efficiency and competitiveness of business, with special attention to some specific cross-border issues. [9]

The following initiatives have been identified in the Action Plan as the most urgent:

- Recommendation aimed at promoting the role of non-executive or supervisory directors.
- Recommendation on directors' remuneration, giving shareholders more information and influence [18] (p.51).

In its Action Plan the European Commission proposes a common approach covering a few essential rules, including:

- the requirement for listed companies to publish an Annual Corporate Governance Statement in their Annual Reports;
- the establishment of minimum standards on the creation, composition and role of the nomination, remuneration, and audit committees;
- the requirement for greater transparency and shareholder influence in relation to executive remuneration;
- the creation of a European Corporate Governance Forum (ECGF) to foster co-ordination and convergence of the development and enforcement of national corporate governance codes [18] (p.51).

Other corporate governance initiatives proposed in the Action Plan cover: achieving better information on the role played by institutional investors in corporate governance; giving further effect to the principle of proportionality between capital and control; offering to listed companies the choice between the one-tier and two-tier board structures; and enhancing directors' responsibilities for financial and key non-financial statements [9].

The report on the comments to the Commission Action Plan ("Synthesis of the responses to the Communication of the Commission to the Council and the European Parliament") dated November 2003 resulted among other findings in that: *"Widespread support was expressed in favor of the Commission initiative to modernize company law and enhance corporate governance. The vast majority of respondents considered this as an essential step to restore confidence in capital markets and the EU economy. Some respondents highlighted the difficulty to comment on individual measures proposed in the Action Plan given the general wording of the Communication. Some also highlighted the need for further clarification of a significant amount of detail and terminology used in the Plan."* [29].

Since the publication of the Action Plan in May 2003, a number of initiatives have been undertaken. In October 2004, the Commission adopted two Recommendations on independent directors (IP/04/1182 and IP/04/1183) as well as a proposal for the simplification of the formation, maintenance and alteration of companies' capital (IP/04/1334). A political agreement was reached in the Council on the 10th Company Law Directive on cross-border mergers in November 2004 (IP/04/1405) [7].

Other important initiatives are on their way, such as a proposal for a 14th Company Law Directive on the cross-border transfer of the registered office and a proposal for a Directive on shareholders' rights, for which a preparatory consultation was published in September 2004 (IP/04/1107). The Commission also published on January 7, 2005 a call for applications from suitably qualified individuals wishing to participate in an Advisory Committee which will provide detailed technical expertise to the Commission for the preparation of legislative and implementing measures on corporate governance and company law [7].

In conclusion, developments in the EU are intended to introduce IFRSs and ISAs, the international benchmarks for accounting and auditing standards, at least for listed companies in 2005. The success of this - and therefore the extent to which this move will meet international needs - is dependent upon how effectively and how quickly the associated regulatory and compliance regimes can be put in place. According to the IFAC, this will be a major challenge, as there are currently important differences between countries and most have significant gaps as compared with the benchmark requirements [17] (p.21).

## **The Revised OECD Principles of Corporate Governance**

The *OECD Principles of Corporate Governance* were published in 1999 and are a widely-recognized reference point on the various aspects of corporate governance. These include the rights and treatment of shareholders, the role of stakeholders, disclosure and transparency and the role and responsibilities of the board [18] (p.52). The OECD Financial Stability Forum in its "Principles of Corporate Governance" has designated the principles as one of the 12 key standards for sound financial systems.

In its Preamble the 2004 revised OECD Principles of Corporate Governance state that they are “intended to assist OECD and non-OECD governments in their efforts to evaluate and improve the legal, institutional and regulatory framework for corporate governance in their countries, and to provide guidance and suggestions for stock exchanges, investors, corporations, and other parties that have a role in the process of developing good corporate governance. The Principles focus on publicly traded companies, both financial and non-financial. However, to the extent they are deemed applicable, they might also be a useful tool to improve corporate governance in non-traded companies, for example, privately held and state-owned enterprises.”

According to the FEE discussion paper, the key additions to the OECD principles revised in 2004 include the following:

- the importance of ensuring an effective corporate governance framework;
- an increased role for shareholders;
- protection for minority shareholders;
- protection for whistleblowers [18] (p.52).

The OECD principles are non-binding and do not aim at detailed prescriptions for national legislation. Their purpose is to serve as a reference point to policy makers in examination and development the legal and regulatory frameworks for corporate governance that reflect their own economic, social, legal and cultural circumstances, and by market participants as they develop their own practices.

## **Slovakia in the Light of the Global Convergence for Fraud Elimination**

Slovakia faces global challenge of fraud mitigation and corporate governance initiatives the same way as any other market-based economy in the world. The international antifraud trends such as the European “comply or explain” principle and the EU Action Plan, the OECD Principles of Corporate Governance or the U.S. Sarbanes-Oxley Act are as appealing to and affecting the Slovak business environment as are to the rest of the world.

The Slovak Act on Auditors No. 466/2002 Coll. states that “Auditor is obliged to adhere to audit standards, orders issued by the Slovak Chamber of Auditors (SKAu) and the code of ethics for professional accountants.” Further on, the act rules that the Slovak Chamber of Auditors (SKAu) “issues national audit standards that are in compliance with the international audit standards.” The general assembly of SKAu decided on October 30, 2003 that the national audit standards would be International Standards on Auditing (ISA). The SKAu Directive No. 5/2004/audit rules that all audits of financial statements for the period ending on December 31, 2004, and later on, will be for the first time performed in accordance with ISA. According to this SKAu directive, the application of ISA in audit relates to all financial statements regardless of the accounting standards and legislation, based on which they were prepared [15].

The Sarbanes-Oxley Act affects all executives, boards and internal auditors of the Slovak subsidiaries or associated companies of SEC registrants (such as is US Steel or IBM), while the financial statements of these companies are subject to consolidation with their mother company resident in the U.S.

The Slovak accounting firms that prepare an audit report involving U.S. registrants will be subject to the authority of the PCAOB. Additionally, if a registered U.S. accounting firm relies on the opinion of a Slovak accounting firm, the Slovak firm's audit workpapers must be supplied upon request to the PCAOB [12].

The EU Company Law Directives, the European Commission Recommendations and other initiatives including the Action Plan affect Slovakia as any other member of the European Union responsible for harmonization of its national legislation with the EU standards.

The ISA 240 on The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements and other ISAs have begun to affect all Slovak auditors as they took over the engagements for the audits of financial statements for the period ending on December 31, 2004, and later on.

## **Implications of the Current Fraud Mitigation Developments**

Although the accounting scandals that gave rise to the Sarbanes-Oxley Act and the particular remedies and

punishments it prescribes are in many ways uniquely American, foreign issuers are subject to many of the legislation's provisions apart from their nation's norms for governance and disclosure have to be followed as well.. Protests from governments and companies around the world don't want to be heard in Washington. An estimated 1,350 foreign firms now fall under the new law, including the 468 non-U.S. companies listed on the New York Stock Exchange and valued at \$5 trillion [11].

Even though – as mentioned above - the legislative impact is direct only for the companies (and their auditors) that fall under the power of the Sarbanes-Oxley Act, the rest of the world has learnt its lesson from the recent fraud scandals as well. Although other countries besides the U.S. have not adopted any of such strong binding measures, an overall tendency leading to precise monitoring of internal controls, management's active involvement in fraud prevention and establishment of effective control environment can be noted in all public or globally operating and also in many larger, nationally operating companies. There is no doubt that this tendency is a result of the control and prevention-oriented atmosphere that has overwhelmed today's business world.

The overall changing perspective towards fraud prevention resulted from the ruined confidence in financial reporting and was emphasized by the introduction of the Sarbanes-Oxley Act and the launch of the Winter Group Report, thanks to which the effective internal controls are nowadays by many (if not all) viewed as the best-practice benchmark. In this light, also the organizations that are not under the direct effect of the U.S. legislation and the PCAOB have decided to implement mechanisms inspired by and/or similar to those defined and prescribed in the Sarbanes-Oxley Act. Meanwhile, there is still some road to go before the common benchmarks for national codes (soft law) of corporate governance are set at European level. Therefore when analyzing the implications of the current fraud mitigation developments, it is reasonable to concentrate on those that have resulted more or less directly from the adoption of the Sarbanes-Oxley Act.

Segregation of Duties under the Sarbanes-Oxley Act. As part of the post-Enron fallout, a series of legislative and regulatory actions have combined to clarify the antifraud roles and responsibilities of principal corporate players [23] (p.9). As a result, both the complex task of fraud mitigation and the U.S. law require segmentation of duties to take place in this fight.

Confusion surrounding the roles of management, the board of directors and the independent auditor in combating fraud relate according to PricewaterhouseCoopers directly to the diverse nature of fraud, which can be segmented into six distinct categories:

1. Fraudulent financial reporting, e.g., fraud arising from improper revenue recognition, overstatement of assets or understatement of liabilities.
2. Misappropriation of assets, e.g., embezzlement, payroll fraud, external theft, procurement fraud, counterfeiting or product diversion.
3. Improper expenditures or liabilities, e.g., commercial and public bribery.
4. Fraudulent acquisition of revenues or assets, e.g., overbilling or product substitution against third parties, employer fraud against employees.
5. Fraudulent avoidance of expenses, e.g., tax fraud, booking revenue offshore to avoid taxes.

Financial misconduct by senior management – includes misconduct of any magnitude as required by PCAOB Auditing Standard No. 2.

Professional auditing standards require independent auditors to examine only two of these six areas – fraudulent financial reporting and misappropriation of assets – and to do so only to the extent that the occurrence could lead to a material misstatement. Senior management and the audit committee, in contrast, are responsible for all six categories [23] (p.20).

#### **Management Implications**

In the past most financial managers did not concern themselves with fraud. In some company cultures, fraud was and is still such a taboo subject that controllers fear that if they even mentioned the word fraud to their employees it might create the perception that the company already has been victimized [21] (p.28).

Nowadays top management responsibly plays an antifraud role, members of the audit committee supervise actively antifraud attempts, and internal audit is in charge of defending the company against the threat of fraud by risk-monitoring as well as by preventing and detecting fraud [23] (p.7).

Management is responsible for projecting, implementing and executing organization's antifraud programs and controls. Management must assess fraud risk at the company-wide, business-unit and significant-account levels as well as attest to the quality of the company's antifraud controls [23] (p.10).

The board of directors and, in particular, the audit committee, should actively oversee the internal controls over financial reporting conducted by management as well as the process by which management satisfies itself that these controls are effective [23] (p.9).

Internal audit is uniquely juxtaposed between the audit committee and senior management, having either a direct or dotted-line relationship to both groups. Fraud in many circles is the proverbial hot potato – too blistering to handle. Senior management and the audit committee are likely to toss much of the operational responsibility for fraud monitoring to internal audit. High priority is being placed on the need for internal audit risk assessments and fraud audits, demands that will pressure internal audit to adjust its skill sets accordingly [23] (p.7).

Independent auditors have two interrelated roles. In their traditional role as auditors of financial statements, independent auditors must plan and perform audits to obtain reasonable assurance that financial statements are free of material misstatements due to fraud or error. And, in their new role as auditors of internal controls over financial reporting, independent auditors must evaluate antifraud programs and controls, a process that includes an annual examination of the effectiveness of their clients' internal audit functions [23] (p.10).

#### **Internal Control and Management Responsibility**

Internal control is a "process" established, operated and monitored by the board and management of a company to provide reasonable assurance regarding the achievement of the company's objectives [10] (p.23).

Management is responsible for the effectiveness of the company's internal control over financial reporting. This responsibility encompasses assessing the effectiveness of internal control as of the end of the fiscal year, using suitable criteria such as the COSO framework, and documenting and reporting on the assessment [26] (p.1).

Critical points relating to management's assessment under Section 404 include the following:

- documenting the design of controls related to all relevant assertions for all significant financial statement accounts and disclosures,
- testing controls related to relevant assertions for all significant financial statement accounts and disclosures and should include all components of internal control (e.g., under the COSO framework: control environment, risk assessment, control activities, information and communication, and monitoring).
- performing procedures to develop sufficient evidence and maintain documentation to support its assessment of the effectiveness of the company's internal control [26] (p.1).

Management cannot delegate its responsibility to assess the company's internal control to the external auditor or any other third party. Management may use internal auditors, other company personnel and third parties to assist in its assessment. The results of tests of controls that the external auditor performs may not be used as a basis for management's assertion about the effectiveness of internal control. The assessment of internal control is itself part of the company's internal control. It represents an important part of the company's monitoring of controls. Management is precluded from determining that the company's internal control is effective if one or more material weaknesses are identified. Management's Section 404 report must disclose any material weaknesses [26] (p.1). In conclusion, companies under the Sarbanes-Oxley Act are required to file, as part of the company's annual report, the attestation report from the external auditors [10] (p.39).

Whilst accepting that COSO is a recognized framework, the SEC has also recognized that other frameworks exist outside the U.S. that satisfy the intent of Sarbanes-Oxley without diminishing the benefits to investors. The SEC states that the Turnbull Report and CoCo are examples of suitable frameworks that satisfy their criteria. However, the SEC says that the board of a foreign registrant company that relies on such a framework used in its home country is nevertheless under an obligation to state affirmatively whether the company's internal controls (presumably internal control for financial reporting) are, or are not, effective [10] (p.39).

The Sarbanes-Oxley Act also introduces in Section 302 a new concept of "disclosure controls and procedures". These, which are to be evaluated for effectiveness and signed off by the CEO and CFO on a quarterly basis, cover the disclosure of information required under the Exchange Act reports (i.e. information filed with the SEC). SEC registered companies are thus introducing "disclosure committees" that are supported within the company by the necessary resources for reporting mechanisms [10] (p.40).

**Winter Group Report .**On the other hand, the Winter Group Report does not specifically refer to systems of internal control or disclosure controls but refers to the risk management system. According to the Winter Group Report, the proposed annual corporate governance statement should include information on “*the system of risk management applied by the company, describing the core strategy and activities of the company and the particular risks thereto. Where such a system does not exist, this must be disclosed.*” This recommendation is taken over by the Commission in that it requires disclosure by listed companies in the annual corporate governance statement of “the existence and nature of a risk management system” [10] (p.40).

Whilst the Winter Group refers to the risk management system, Sarbanes-Oxley only considers internal control in relation to external financial reporting and the controls over information filed with the SEC. As illustrated in figure 2 on the next page, the Sarbanes-Oxley definition of internal control essentially represents a component of disclosure control and that disclosure control is a (relatively) small component of internal control as previously understood in COSO, CoCo and Turnbull [10] (p.41).

Note: SOA is abbreviation of the Sarbanes-Oxley Act in the Fig.2:Internal Control [10] (p.41).

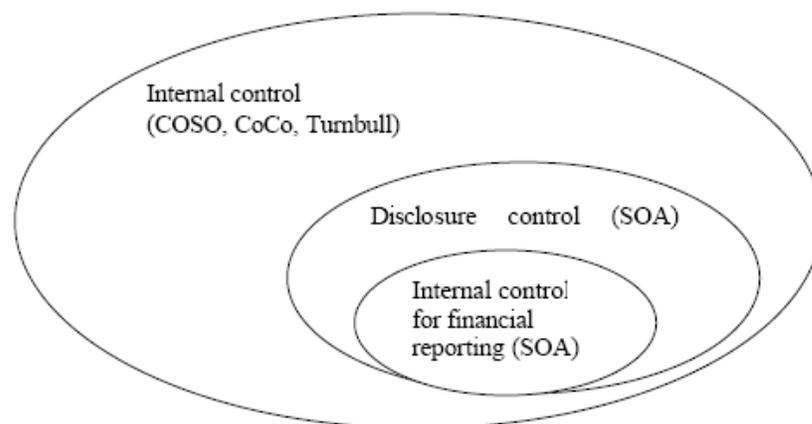


FIG. 2: INTERNAL CONTROL

The Sarbanes-Oxley definition is not linked to obtaining benefits to the business from a review of the wider aspects of internal control and the related processes for risk management. However, some EU member states have gone beyond reporting on internal control for financial reporting purposes as required by Section 404 of Sarbanes-Oxley. For example, boards of UK listed companies are required to disclose in their annual reports information on the wider aspects of internal control, including their risk assessment procedures, disclose the processes that they have adopted to review the effectiveness of internal control, and state that the work that the board has undertaken is in accordance with the guidance in the Turnbull Report.

## Auditors' Implications

### Internal Auditors' Implications

At first blush, the actions of the PCAOB would seem irrelevant to the internal audit function, as it is beyond the jurisdiction of the PCAOB. However, this is not the case. The PCAOB's Auditing Standard No. 2 requires independent auditors to evaluate and test the design and operating effectiveness of programs and controls intended to mitigate the risks of fraud. This evaluation must assess the “*adequacy of the internal audit activity and whether the internal audit function reports directly to the audit committee, as well as the extent of the audit committee's involvement and interaction with internal audit...*” [23] (p4). Therefore, of all the players in the financial-reporting

supply chain, internal audit is quite possibly the group most affected by the new emphasis on fraud prevention and detection.

Internal auditors are viewed as a first line of defense against fraud because of their knowledge and understanding of internal control structure, the business environment, and corporate governance. An example of how expectations of internal audit are shifting in response to the new environment is in prevention and detection of fraudulent financial reporting.

In the past, many internal audit groups have focused their resources and efforts primarily on the detection of frauds involving the misappropriation of assets. Assessment of risks associated with fraudulent financial reporting and the detection of financial statement fraud have often been left to be addressed by the independent auditor.

In the new environment, management can no longer rely on the work of the independent auditor as a basis for certifying the effectiveness of internal controls over financial reporting. As a result, many internal audit groups will need to strengthen skills necessary to assess the risks of financial statement fraud. The skills necessary will include an understanding of financial reporting standards, skill sets that may have atrophied given the historical focus on the misappropriation of assets. Moreover, the internal audit must be aware of potential schemes and scenarios affecting the industries and markets in which the organization does business, and it must be conversant with and able to identify the indicia of these schemes. What's more, internal audit must have a solid understanding of measures intended to prevent and detect fraud and be able to evaluate and test antifraud control effectiveness. In addition, internal audit must be knowledgeable about fraud auditing and forensic investigation techniques.

For internal audit, this environment poses both opportunities and challenges. Corporate auditors who move quickly to develop antifraud action plans will find ample ways to provide added value to their organizations. Conversely, internal audit directors who fail to address rising stakeholder expectations jeopardize their relevance and imperil their job security [23] (p.8).

Internal auditors can use the 3Cs model to predict and uncover financial statement fraud by:

1. identifying symptoms - conditions - that indicate a fraud may have been perpetrated;
2. searching for opportunities - corporate structure - that may allow fraud to occur; and
3. evaluating the need for further investigation, notifying the appropriate individuals within the company about the possibility of financial statement fraud, and taking the actions necessary to reduce or minimize its likelihood of occurrence - choice.

Because financial statement fraud is typically perpetrated by management - or at least with the knowledge and participation of top executives - internal auditors should pay close attention to identifying "business red flags," or those conditions and circumstances that arise from the perceived need to overcome financial difficulties, such as the inability to meet analysts' forecasts, increased competition, and cash flow shortages. Once financial statement fraud occurs, corrective actions include eliminating the fraud and its adverse impact on the quality, integrity, and reliability of financial statements and preventing further occurrences by eliminating related motives and opportunities to engage in fraud [27].

The role of internal audit will vary – depending on organizational needs, internal audit structure and available competencies. However, this role will likely include:

- Supporting management to construct an auditable antifraud process and program.
- Facilitating fraud and reputation-risk assessments at the corporate, management-unit and business-process levels.
- Linking (and documenting) antifraud control activities to identified fraud risks.
- Evaluating and testing the design and operating effectiveness of antifraud programs and controls.
- Fraud auditing.
- Leading or supporting investigations into alleged or suspected fraud or other misconduct.
- Leading or supporting remediation efforts.
- Reporting to the audit committee about the organization's efforts to prevent, detect, investigate and remediate fraud [23]

When incidents of fraud do occur, the audit committee, the CEO and CFO all stand in the direct line of fire from both prosecutors and regulators seeking to determine why a given fraud was neither prevented nor detected

earlier. While internal audit may not stand directly in the line of fire, it will share directly in the consequences of failed antifraud programs. Furthermore, internal audit is likely to take the lead in investigation of reported incidents [23] (p.10).

For internal audit groups, the fight against fraud has a silver lining. By reducing fraud, a company can cut costs and improve profitability, and to the extent that internal audit can strengthen an antifraud effort, it will create significant organizational value. According to industry research, antifraud programs can more than pay for themselves. A major study of the insurance industry, for example, demonstrated that for every dollar invested in antifraud programs, the return on investment was nearly \$7 [19]. Likewise, a separate benchmarking analysis and research by the General Counsel Roundtable [6] found that each additional dollar of compliance spending saves organizations, on average, \$5.21 in heightened avoidance of legal liabilities, harm to the organization's reputation and lost productivity. That's more than a five-to-one payback per dollar of compliance investment [23] (p.9).

#### **External Auditor's Implications**

Auditors are required to conduct a "brainstorming" session in every audit by SAS no.99. In any case this process comprises engagement of the all-key audit team members in a dialogue. This dialogue may be interfered or become ineffective if one or two participants are too dominant, then the creative work of the team might not lead to dialogue that will assist to identify any fraud risks. Those who dominate the dialogue will stop other's presenting ideas (Group domination). Leaders should encourage the team to address the issue without any hesitation. It is essential to set zero tolerance for criticism. Another potential pitfall of brainstorming is where certain members of the team will rely on the others to tackle the issue. Fear of losing credibility may be also possible threat, that prevents individuals from active participation. (social loafing) . Time pressure or unexperience should not speed up addressing all alternatives or forcing to make a quick conclusion about fraud by not evaluating all ideas. (Groupthink). They should not overreact; a wrong person can be accused of wrongdoing without any reason. Their attitude should be balanced between conservative and risk taker's one.. If the team members are assigned the homework in advance they have extra time to think over and dialogue should be more productive then. These are prerequisites that the possible fraud risk is revealed.

## **Future Challenges**

As any other newly adopted change, the recently introduced approach to fraud mitigation is not exempt from further challenges that arise parallel or subsequent to its first implementation. In its discussion paper the FEE suggests possible issues that relate to the recently adopted anti-fraud regulations and that will require further attention of companies, accounting profession and probably also the standard setters.

*The troublesome may be the question how to define effectiveness.* According to the FEE, there is not yet clarity or consensus as to what constitutes "effectiveness". It is an often-used word that cannot easily be defined. For example, to some users of financial statements, "effectiveness" could imply that controls can offer absolute assurance against misstatement or loss. Suitable criteria for evaluating effectiveness, which are applicable to different companies, have not yet been developed. Effectiveness is a relative concept and scoring mechanisms do not yet exist which allow one company, or even one process or team in a company, to be benchmarked against another.

While assessment of the effectiveness of internal control in enterprises for internal purposes should be encouraged, external reporting on the effectiveness of internal control presents considerable challenges and should be subject for further discussion and exploration. Public reporting of weaknesses in internal controls may present reputational risks to a company and may undermine the viability of the company, particularly companies in the financial services industry. There are few companies that are not capable of improvement in some parts of their internal control systems. Therefore the FEE concludes that there should be realism on what internal control can and cannot do and how it can be assessed and reported upon. For this reason, the FEE expects the future discussion to provide clarity on what is meant by internal control [10] (p.42).

*Different Levels of Internal Control can be distinguished.* The highest level of control is the governance function of the board. The next level is senior management, which is responsible for controlling the organization.

The third level is the management systems that assist management in controlling its activities, including financial reporting systems. The components of management systems such as documentation practices are the lowest level of internal controls.

According to the FEE, the challenges that may arise from such categorization include:

1. The bigger picture could be missed by focusing on the lowest level of internal controls,.
2. Difficulties of reporting and assessing of internal controls may differ in relation to the level of internal control. [10] (p.43).

*The Informal Aspects of Internal Control* are important and essentially mean the control environment and include such matters as culture, commitment, ethics and communication. COSO states that the effectiveness of internal controls cannot rise above the ethical values of the people who create, administer and monitor them. It has been suggested that most, if not all, major corporate governance failures are a result of weaknesses in the control environment. Obviously it is therefore harder, if not impossible, for management to assess and report meaningfully on the “operation” or effectiveness of other components of control, in particular the control environment, and harder still for auditors to attest [10] (p.43).

*Possible Forms of Reporting on Internal Control.* Boards in some jurisdictions are at present requested to make a statement on their review of internal control and auditors have to report upon this statement. FEE emphasizes that the main benefit in reviewing internal control is not to report upon an arbitrary assessment of effectiveness but to assess, reflect and respond to risks to achieving objectives so as to improve a business’s ability to meet its objectives. What is “effective” for one company may be insufficient for another, or totally excessive and unnecessary for a third company. Therefore will the information provided to investors regarding effectiveness be of any meaningful use? Benchmarking of systems of internal control against forms of pre-determined standards presents considerable difficulty [10] (p.44). Discussion in professional circles, further research and exploration are required with regard to the criteria for assessing the effectiveness of internal controls and the related matters that are just to emerge, as the above-mentioned challenges are just the top of an iceberg and many other issues are sure to arise as the new practice of fraud mitigation is put into life.

## Conclusion

No system of control is ideally working to protect the company against the possible human error or error deliberately made.

A sound system of internal control provides reasonable assurance that a company should be successful in achieving its business objectives, including reliable financial reporting. No system of control can provide protection with certainty.

Implementing already accepted rules and also introduction of all additional, formalized requirements in the U.S. or in Europe will take time, much effort and additional costs. “The transfer to these new requirements, most of which will require much formal paperwork for evaluations on a quarterly basis is an all pervasive change. It is not like a change in accounting policy” in words used in Discussion Paper on the Financial Reporting and Auditing Aspects of Corporate Governance of July 2003.

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## Appendix 1: Recent Cases of Fraud Scandals

The IFAC team undertook a series of 27 case studies, which were drawn from ten countries and covered ten industries. Based on this sample, the IFAC study provided summaries of the causes of corporate failures (the most famous cases are presented in the table below).

TABLE 1: WHAT WENT WRONG? [18]

Company	Country	Sector	Brief Background
Ahold	Netherlands	Supermarket retailing	Large scale accounting irregularities
Enron	United States	Energy	Serious accounting irregularities
WorldCom	United States	Telecommunications	Major accounting fraud
Xerox	United States	Optical imaging	Serious accounting irregularities

The IFAC study ruled that key corporate governance issues underlying company failures were:

- Culture and tone at the top
- The chief executive
- The board of directors
- Internal controls
- Aggressive earnings management

The following table illustrates some of the outcomes of an analysis of the corporate failures in terms of specific corporate governance issues. Table 2: What went wrong? - corporate governance issues [18]

Company	Ethics / Culture Tone at the top	CEO	Board of Directors	Internal Control	Aggressive Earnings Management
Ahold	••	•••	•	•••	•••
Enron	•••	•••	•••	•••	•••
WorldCom	•••	•••	•••	•••	•••
Xerox	•••	•••		•••	•••

The use of

- is where this issue had relatively minor significance in the corporate failure,
- indicate that the issue had moderate significance while,
- mean that the issue was of major significance.

## Appendix 2: Economic Crime Survey

For the purpose of the *PricewaterhouseCoopers Global Economic Crime Survey 2003* senior representatives of more than 3,600 companies in 50 countries were interviewed. The results of the survey provide interesting, valuable and unparalleled depth of insight into the perceptions, awareness and impact of economic crime on business across the world.

### Economic crime remains a significant threat

As much as 37% of respondents reported significant economic crimes during two years prior to the survey.

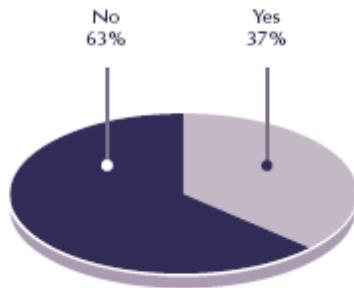


FIG. 1: VICTIMS OF FRAUD (WORLDWIDE) [25]

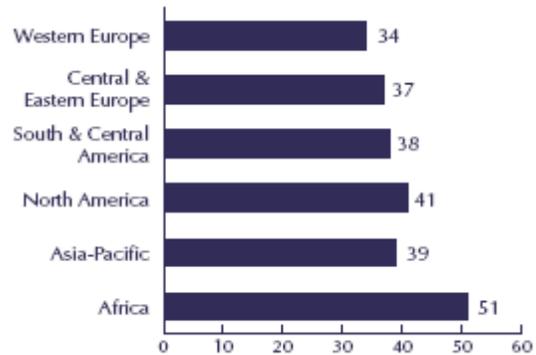


FIG. 2: VICTIMS OF FRAUD BY REGION [25]

The number of organizations reporting fraud in Western Europe has grown from 29% in 2001 to 34% in 2003 and in Central and Eastern Europe from 26% in 2001 to 37% in 2003. This increase appears to reflect two factors:

1. greater awareness of fraud leading to heightened detection rate; and
2. a growing desire for transparency, particularly in European Union 'accession countries'.

The highest levels of economic crime were reported by respondents in Africa (51%) and North America (41%). In contrast, respondents in Russia and Turkey reported no economic crime at all. There is clearly some way to go in both these countries to either improve detection or to promote greater transparency.

### Preventing Economic Crime

Companies that have suffered economic crime are more concerned about the strength and effectiveness of their systems to prevent fraud. They are also more likely to have taken proactive measures to reduce future exposure.

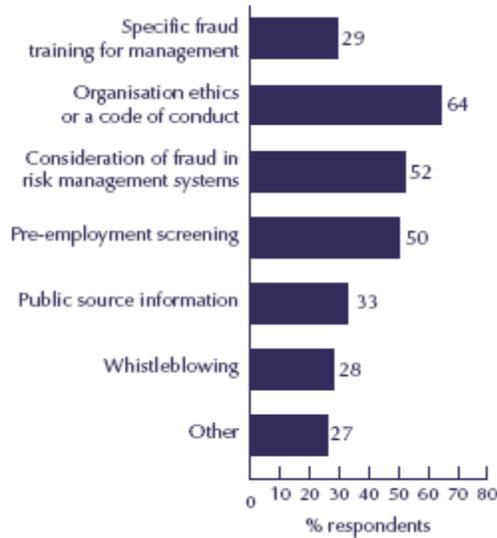


FIG. 3: TYPES OF CORRECTIVE MEASURES TAKEN (WORLDWIDE) [25]

Those that had not suffered fraud tended to rely on more intangible prevention tools such as codes of conduct or ethical policies. In contrast, fraud victims instituted more tangible measures such as management training and whistle blowing programs.

**Detecting Economic Crime**

As companies can only report crimes that have been detected, it is not possible to judge how much fraud goes unnoticed. What we can analyze is the means by which fraud is brought to light. The results vary considerably depending on the size of the organization concerned. Within larger organizations a combination of factors are likely to be involved in the detection of an incident. Control and risk management systems often detected fraud. However, in many cases this was accompanied by a finding from the internal or external audit function or from a tip-off. Smaller organizations detected a far greater proportion of economic crime through audit processes than by other means. Given the respective size of the organizations this is most likely to be via the external auditors – a worrying finding that suggests smaller companies may be placing too little attention on the development of effective controls and alternative checks and balances.

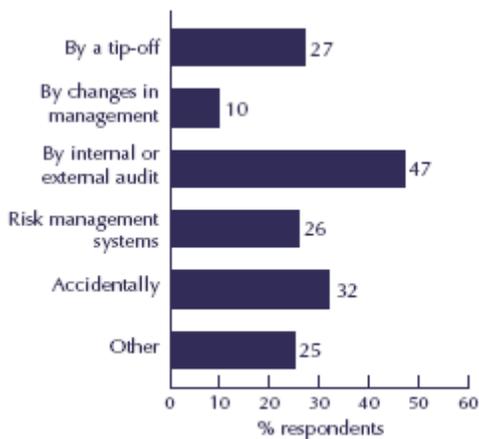


FIG. 4: HOW ECONOMIC CRIME IS DETECTED (WORLDWIDE)[25]

Many economic crimes at major companies are uncovered by accident, in this case, almost a third.

**Types of Economic Crime**

Of all victims 60% cited asset misappropriation as one of the frauds that they had suffered. It is the easiest crime to detect as it involves the theft of tangible items with a defined value.

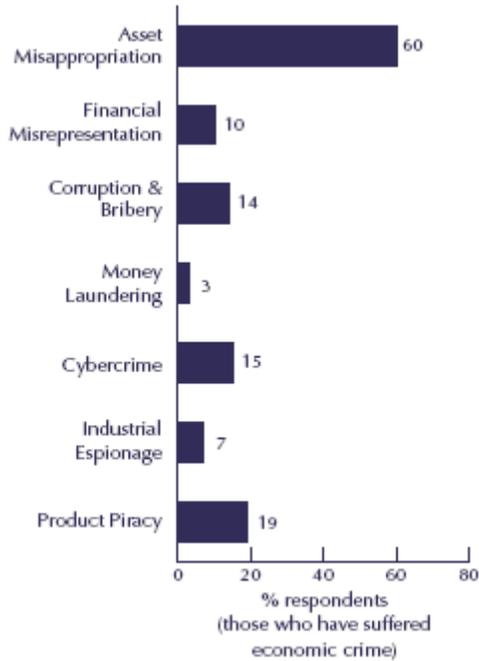


FIG. 5: TYPES OF FRAUD EXPERIENCED (WORLDWIDE) [25]

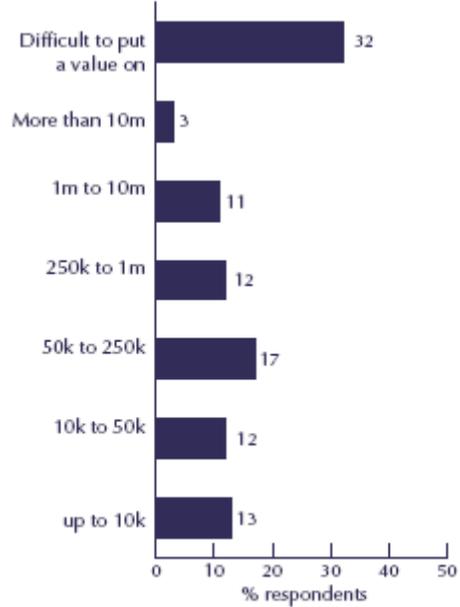


FIG. 6: FINANCIAL LOSS THROUGH FRAUD (WORLDWIDE) [25]

Asked to consider whether the collateral damage had a short or long-term impact on their business, most respondents believed the impact to be short-term (less than one year). This should not disguise the fact that approximately one third of respondents reported long-term effects of economic crime on their business.

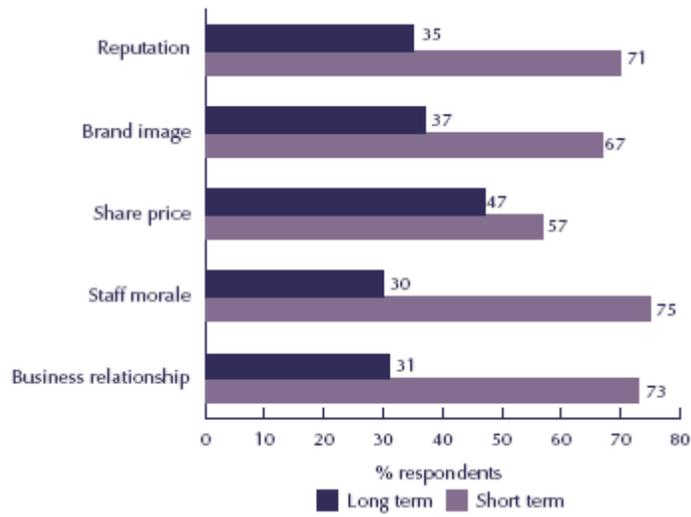


FIG. 7: THE LASTING IMPACT OF ECONOMIC CRIME (WORLDWIDE) [25]

Almost three quarters of victims of crime recovered less than 20% of their losses; only half of respondents had insurance against economic crime, but they recovered more of their losses.

### End Notes

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SECTION 14  
LEGAL/ CULTURAL/ ENVIRONMENTAL ISSUES & SUSTAINABLE DEVELOPMENT

2005

# Cross Cultural Company Acquisitions: A Case of ‘Us versus Them’?

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## Abstract

Although acquisitions are a popular way of internationalisation, the integration of acquired companies remains an arduous process that often impacts on the performance of the subsidiary or the overall organization. Difficulties associated with integration mostly relate to cultural differences, either national or organizational. This paper reflects on the experience of Finnish and Australian staff involved in the acquisition of an Australian company by a Finnish company. The paper points at problems and issues with business planning, vision sharing, effective management and leadership, cultural differences, cultural change, trust relationships and the integration environment as derived from literature and confirmed in the experience of interviewed respondents. The findings drawn from the case imply that it is imperative to avoid an ‘us vs. them’ atmosphere while both management and leadership must be strong and unbiased. Although a level of independence and identity should be allowed after the acquisition, integration of organizational cultures remains crucial for success.

## Introduction

To survive in today’s globalized business arena, companies must continually respond to numerous internal and external forces. The ability to adapt and change sets the scene for long-term success in the market. Many companies turn to acquisition as a means of gaining access to products, markets, technologies and other critical resources for their business. The over-riding purpose of mergers and acquisitions is to attain strategic goals more quickly and inexpensively than if the company acted on its own (Marks and Mirvis, 2001).

The real competitive advantage and performance benefits derived from acquisitions reflect a company’s ability to form and maintain effective internal and external relations between countries and cultures (Katz, Swanson and Nelson, 2001). The ‘cultural forces’ generated by the acquisition process are often misunderstood or not fully appreciated by business executives. During the rush to effectively utilize newly acquired resources, companies often overlook issues of national and corporate culture diversity in their new relationships. Acquisition integration strategies therefore often fail to consider cultural integration needs, misunderstandings, and difficulties between involved institutions, thus contributing to high rates of post acquisition failure (Marks and Mirvis, 2001).

Performance downturns following acquisitions are often attributed to the mixing of, and forced changes in, company cultures. Conflict and the process of finding ‘equal’ or ‘amicable’ cultural grounds between the acquirer and the acquire, often hinder business performance (Gallegos n.d.; Morosini, Shane and Singh, 1998). This paper considers arguments and models for acquisitions and subsequent integration and reflects on the nature of national and organizational culture. It furthermore reflects on a Finnish acquisition of an Australian company and discusses the experience and perceptions of key staff involved in the acquisition and integration.

## Background

The background section considers the acquisition rationale, the models of integration and the nature and impact of national and organizational culture from literature.

### **Acquisition and Integration of Companies**

The acquisition and subsequent integration of companies into parent organizations is an extremely disruptive process for any business operation (Kellogg, 2002). Although diverse forces of change causing disruptions have been widely studied, data suggest that acquisitions are poorly planned and do not benefit from experience. Marks

and Mirvis (2001) found that three out of four mergers and acquisitions fail to ever achieve their financial and strategic objectives.

Changes required to accommodate the new cultures and management activities during acquisition integration not only affect business performance, but also place considerable stress on employees and stakeholders. Business objectives need to take into account the human or cultural factors that can make or break a strategic focus (Simpson, 2002). Failure to place suitable emphasis on acquisition integration can easily negate the purpose or strategy of acquisitions (Marks and Cutcliffe 1988).

Whilst there are numerous reasons for acquisition failure, Marks and Mirvis (2001) suggests that many companies become too 'financially tunnel visioned' during the pre-combination phase of acquisition deals. The acquiring company, often non-operations oriented, tends to focus on the hard factors involved in the transaction (Simpson, 2002). Costs, values, transaction structures, tax implications and similar issues, overrule the 'softer' human resource management issues.

Successful acquisitions require acquirers to clearly define synergies and boundaries included in their initial assessment criteria. These acquisitions begin with a strategic intent which scrutinises an organization's own competitive and market status, its strengths and weaknesses, often referred to as the 'hard' issues. In addition, corporate and cultural orientations and human resource management often called 'soft' issues also impact severely on the acquisition and integration process. Both 'hard' and 'soft' issues therefore play an important part in the decision to acquire a company (Simpson, 2002; Marks and Mirvis, 2001). Such approaches appear to produce more effective cultural integration results.

#### **Models of Integration of Acquired Companies**

Various models explaining business integration impose differing cultural challenges on companies. These also tend to offer different outcomes of success following acquisition. Four models of acquisition 'integration' are outlined by Marks and Mirvis (2001): preservation, absorption, reverse takeover and transformation.

The preservation model of acquisition describes the situation where the acquired company faces a modest degree of integration and retains its ways of doing business. Typically, companies operating with this model strongly promote cultural plurism among business units and encourage localized business and product development. Effective integration requires protecting the boundaries of the subsidiary and maintaining effective business management control. In many cases, preservation allows a newly acquired subsidiary to maintain its original structures, systems and employees to continue performance levels prior to acquisition (Kellogg, 2002; Marks and Cutcliffe, 1988).

During absorption integration the acquiring company takes full control of the operations of a new subsidiary, without serious regard for the original cultures and operations of the acquired company. The cultures, structures and methods of the acquired company are assimilated to conform to those of the acquiring company. This is often associated with the appointment of new management in the acquired company, variations of staff roles and responsibilities, and the enactment of considerable change (Kellogg, 2002).

Reverse takeover is the opposite of the absorption model in that the acquired company dictates the terms of the integration and effects cultural change in the acquiring company. Reverse takeover acknowledges the acquired company as having more preferred management methods, structures and abilities and forces substantial change upon the acquirer.

Transformation based integration is where both the acquiring and the acquired companies find synergies between their operations and integrate to effectively capitalize on the 'positives of each system'. Benefits are gained from not only reorganizing the companies, but from reinventing the companies.

Although the model on acquisition integration impacts the functionality of either or both organizations involved, inherent organizational culture attributes will also impact on the process. The following section briefly outlines the nature of national and organizational culture.

## National and Organizational Culture

It is easy to oversimplify and miss the basic facets of culture, thus contributing to potential failure. As one of the earliest researchers on culture and organizations Hofstede (1980) described culture as the collective programming of the mind which distinguishes the members of one human group from another. Considering culture in the acquisition integration processes, three important issues need to be kept in mind. Schein (1999) summarizes these issues as follows:

- Culture is deep. The multilevel concept of culture shows that culture is an extremely complex phenomenon. Culture controls people more than people control culture. Culture allows people to develop beliefs and assumptions that eventually drop out of awareness and become tacit rules of how to do things, how to think about things, and how to feel.
- Culture is broad. Groups learn to survive in an environment through dynamics of its external and internal relationships. Culture affects all elements of individual or group life.
- Culture is stable. The members of a group want to hold on to their cultural assumptions because culture provides meaning and makes life predictable. This is important, since humans do not like chaotic, unpredictable situations and work hard to stabilize and 'normalize' situations. Any prospective culture change therefore contributes to anxiety and resistance to change.

### National Culture

The deepest and most powerful level of culture represents the accumulated values and behaviors that arise from a society's basic values and beliefs (O'Hara-Devereaux and Johanson, 1994). National culture is essentially permanent and can change only over generations, manifesting itself in the form of common language, common orientation to context, time, power, equality and information flow.

Hofstede's (1980) studies into national culture in the late 1970's and early 1980's provided insight to some of the dimensions involved in formulating national culture. The dimensions are not necessarily exhaustive and Hofstede and subsequent researchers have described cultural dimensions using additional dimensions and variables. Hofstede (1980, 1991) proposed four fundamental dimensions of national culture, which he believed to be independent of organizational culture. The dimensions include power distance, uncertainty avoidance, individualism (versus collectivism) and masculinity (versus femininity). The relevance and complementarity of these value dimensions in the business environment are confirmed by Yeh and Lawrence (1995), Barkema and Vermeulen (1997) and Chow, Harrison, Mc Kinnon, and Wu (1999). There is furthermore a positive relationship between power distance and behavior towards business objectives and goals (Hofstede, Van Deussen, Mueller and Charles, 2002).

### Organizational Culture

Like national cultures, corporate and organizational cultures within companies are not an espoused list of values developed and 'written up' by the executive team for all employees to read and abide by (although such actions may actually *contribute* to the developed cultures within organizations). The culture of an organization also operates at conscious and unconscious levels (Gallegos, n.d.).

Organizational culture is usually deeply rooted and shared by most members of an organization. Organizational culture refers to formal, written company policy and the informal, unwritten behaviors that have become accepted by the group (Stoppler 2002). Organizational culture drives the actions of a company and guides how employees think, act and feel. Hagberg and Heifitz (2002) argue that while organizational culture is dynamic and fluid, it simultaneously represents characteristics of an organization that are relatively enduring over time, and influence the behavior of people in the organization. Schein (1992, 1999) and other specialists have challenged beliefs about the 'content of organizational culture' and questioned its relationship to national culture (Gallegos, n.d.; Maurice, Sorge and Warner, 1980).

Traditionally research is focused on the boundary between national and corporate culture and their relationship to company performance (DeWitt, n.d.). Some researchers demonstrate that organizational culture in companies is a universal concept, inferring that managerial tasks are similar across borders, and national culture has little or no impact on organizational culture and performance (Hickson, Hinings, McMillan and Schwitter, 1974).

This school of thought argues that national cultures are moderated by organizational cultures and that people within an organization think and act similarly if working for the same organization, regardless of their home country culture (Adler, 1986; Florin, 2002; Maurice, Sorge and Warner, 1980).

At the same time Adler (1997) argues that significant differences in national culture are dominant over organizational culture, implying that national culture determines methods of management. Furthermore, national culture impacts on perceptions and behavior in organizational culture (Hofstede, 1980; Laurent, 1983; Gallegos, n.d.). National cultural differences are primarily a matter of 'values', while organizational cultural differences are primarily a matter of 'practices' (Hofstede, 1998).

In a Finnish – Australian interaction context companies contemplating acquisitions or mergers face an interesting set of demands and circumstances to achieve success. Whilst both countries are relatively technologically advanced, have well educated workforces and good relationships as international trade partners; they also experience a large geographic separation, widely differing climatic conditions, different languages and time zone differences. (CIA, 2001; Ryan, 1997). It is therefore expected that any merger between Australian and Finnish companies would be challenging.

## **Research Methodology**

This paper reflects on the acquisition and integration experience of a Finnish Engineering company (FinX) acquiring a smaller Australian engineering company (AusY). The case was studied to assess if different organizational backgrounds do inhibit effective integration of acquired companies. The study involved collection of primary data from 29 interviewees associated with the company's relevant business units, observation of artifacts and integration of information gained from literature. Due to the shortfalls associated with quantitative research methods, a number of researchers have begun to conduct more qualitative approaches to studying organizational culture, both in order to supplement quantitative design and to stand alone (Nicolson, 1998; Hatch, 1997; Schein, 1992). These shortfalls include the simplification of socially constructed and diverse realities and the focus to establish a cause – result relationship between variables. In contrast, qualitative research allows a more holistic understanding of a situation while accommodating individual experiences and interpretations (Fraenkel and Wallen, 2003).

Eighteen of the respondents involved in the data collection interviews were Finnish employees based in Finland; 9 were Australian employees based in Australia and another 2 were Australians expatriates in Finland. The interviews were conducted in person in Finland and Australia during early 2002. A questionnaire was constructed to collect data reflecting the perceptions and experiences of staff affected by and involved in the acquisition and integration. Although small in number, the respondents effectively represented the key individuals involved in the acquisition and integration process.

Interviews were conducted individually in open and informal settings. Time was allocated for an 'interview introduction' by the interviewer. This included delivery of information of what the study and information collected was to be used for and to give a brief background on the generalities of the concept of culture. The interview introduction also provided an opportunity to ensure participants that all information collected was to be kept anonymous and confidential. Time was spent on the introduction to improve the depth of information provided by respondents, to disarm individual suspicions that the company might have initiated the study and to confirm anonymity and confidentiality.

The 'base questions' in the interview originated from relevant 'open ended' questions previously used by Schein (1999). Whilst generally delivered as designed, questions were used mainly to act as 'prompters' for the interviewer and to entice open discussion of organizational culture issues. Respondents were invited to add as much comment and queries as possible at all times

### **Limitations of Study**

The major limitations of this study are associated with the depth and breadth of the study, which in turn questions the overall validity of the research data. As suggested in earlier sections, no study of culture can claim to be an 'absolute' investigation of the subject of culture due to the plethora of elements and dimensions involved (Schein, 1987). The authors acknowledge that this research has been limited to the identification and interpretation of

cultural issues central to the main (cultural) concerns in the company. The results and outcomes therefore, cannot be considered as 'typical' or 'normative' in any way and are reflective of the companies involved in the case. Another limitation of the study was that it did not dwell on wider aspects of company acquisitions and integrations. Only some cultural aspects of acquisition integration are considered while other aspects that are likely to influence acquisition integration are not. Although acquisition companies provide a situation to analyze the 'before' and 'after' performance scenarios (Gallegos, n.d.), the research fails to cover that aspect...

## **Case Environment**

The case environment explains the background of the two companies leading to the acquisition and the nature of the acquisition integration model. It also considers important issues of culture integration derived from the case data.

### **Background**

Before acquisition of AusY, the product range of FinX did not include all equipment and technologies required to design and supply base metal process plants. AusY's product line provided the 'missing link' to complete the equipment technology set. A major objective of FinX was to establish a world leading position to provide a 'total solution' service, offering process plant design and supply, using entirely in-house technologies and equipment.

AusY had been successful in the regions FinX was attempting to gain access into. Due to success in chosen regional markets of Australia, South Africa, USA and Canada in the past, AusY's management had not seriously considered expanding into other regions. Although AusY was profitable and successful, international competitors and anticipated market downturns threatened their position. The timing was therefore right to sell the company to a larger player that could effectively take the product to the 'next level' and globalize its distribution. For FinX, acquiring AusY would realise the total solution objective while potentially serving the expectations of AusY.

### **Acquisition Model**

With past apparent successes with German acquisitions (Kuisma, 1989), FinX was confident that their 'transformation' acquisition model was suitable for use in the Australian acquisition process. The Australian management however favored the approach of the 'preservation' model (Marks and Marvis, 2001). They believed their company had performed well over the past decade and that a change in ownership was no reason to disrupt the operations and functioning of the organization. AusY anticipated that historical achievements would translate into high levels of independence and preservation of culture, processes and systems. FinX in turn expected AusY to become part of their push towards a full range and global presence.

The actual execution of the acquisition and integration expectations differ even further with the strong ethnocentric management of FinX pushing 'transformation' towards the limits of 'absorption' integration. This was partly due to the different cultural expectations, both national and organizational, which points at the importance of managing the integration process.

### **Key Issues of Culture Integration**

Substantial differences in cultural dimensions were noted between the respective business units in the case. In many cases, it was difficult to separate the specific influences of national culture and organizational culture dimensions of each business unit. Concerns and issues evolved from differences in culturally derived assumptions and beliefs, which led to misunderstanding, mistrust and sometimes conflict between the business units. Respondents noted a number of culturally related situations and concerns as examples of poor integration and alignment or hindering overall business operations.

An analysis of responses allowed identification and inference of 'key factors' issues that the respondents believed would assist in the cultural integration process. The key factors identified were:

- Plan culture within the integration business plan
- Develop a shared vision
- Involve effective management and leadership
- Identify differences between cultures
- Manage cultural change

- Build trust
- Monitor the integration environment

#### **Business and Cultural Planning**

A complete organizational and cultural planning process includes 'reality testing' of potential synergies and differences in light of the two sides' structures and cultures and assist in establishing a desired and agreed relationship between the companies and members of management (Buono and Nurick, 1992). It also provides insight into employee attitudes towards conflict issues (Simpson, 2002). The process of formulating the cultural plan in itself would assist in uncovering potential cultural concerns, allowing suitable adaptation and facilities in the business plan to counter concerns before they arise (Marks and Cutcliffe, 1988; Simpson, 2002).

Employees cannot be expected to understand and accept new cultural influences if management did not fully research, inform, accept, understand and plan the management and facilitation of changes, influences and tensions expected during integration (Marks and Mirvis, 2001). To integrate successfully management requires a specific integration plan and then needs to be willing to modify strategies to accommodate cultural diversity between business units as new cultural differences, beliefs and assumptions are identified (Walton, 2001).

The most important element of effective planning is to ensure thought and consideration has been committed to various important elements and stages of business operations (Marks and Marvis, 2001; Buono and Nurick, 1992). A set business plan incorporating cultural assessment of business units and cultural planning would have been beneficial to the acquisition integration process.

In the case, it is important to differentiate between 'business planning' and 'cultural planning' activities. Evidently a degree of 'business planning' had taken place to facilitate integration. The physical and legal acquisition processes had taken place and the operations had officially been placed into 'integration', as per the Finnish integration business strategy.

The inferred approach to integration planning in the case lacks effective 'cultural planning'. This ultimately contributed to culturally derived difficulties experienced between the business units of the company. Additional cultural planning (as a sub-set of business planning) would have allowed management to better understand the artifacts, beliefs and assumptions of the different organizational cultures. Providing allowances and plans for these issues before integration would address organizational and cultural pressures experienced in the operations before they occur (Adams, 2002).

#### **Shared Vision**

A shared vision for the business units should provide inference of what management expects to be the 'end state' of the combination. Having a shared goal allows better demarcation of the shared vision amongst management and employees. With defined limits on how, where, when and with who to achieve goals people are able to focus their energy on common goals and the realities of the acquisition (Marks and Mirvis, 2001).

Employees need to perceive reasons behind the company's changes in a positive light and be given a context within which to see the actions in their own best interest. A shared vision, if understood and embraced by all personnel, would thus help to create a sense of commonality, belonging and purpose between the business units. The new combination of operations could then draw strength from individuals' desires to be connected to important undertakings (Senge, 2002). This is particularly the case for the Australian employees, who drew motivational strength from the strong business focus they had formed in AusY. Without the strong business focus and direction, respondents believed employees had little desire to exercise individual ambition and achievement.

Australian respondents indicated that the take-over led to the feeling of being 'let down' or 'betrayed' by management. These beliefs were based on negative assumptions that the future would not be as promising as the past. This downturn in employee morale is an expected reaction for many companies on the 'receiving end' of an acquisition (Marks and Mirvis, 2001). To counteract this trend, management of both companies need to focus on commonalities and positives to be derived from the acquisition which can be achieved by forming a strong shared vision, and communicating this to all individuals (Adams, 2002).

Australian respondents believe that promoting a strong shared vision would have assisted in restoring confidence and moral. It would also assist in dispelling negative feelings towards the 'sell-out'. Before the acquisition individual businesses operated with their own original missions and visions. The mission and operating vision promoted by the new parent company was not accepted as being relevant to the Australian operations due to

the culture that existed within the business unit. Australian respondents believed that the unfocused and unclear 'hollow' employee orientated Finnish visions did not apply to their strongly profit and achievement focused culture. Finnish respondents indicated that they believed the Finnish operations would continue as per their original visions due to the size of the organization and the stability of the bureaucracy, despite the addition of the Australian operations. Whilst the Finnish vision for the combined company had been formulated, it had not been effectively communicated and accepted by all business unit employees. Australian and Finnish respondents indicated that they were not 'working in the same direction' at all times. An effective, accepted and truly shared vision was needed by the business units to assist in 'bringing the business units together as one'.

#### **Management and Leadership Involvement**

Guillen and Gonzalez (2001) argue the importance to differentiate between the roles of management in 'management' processes, and the role of management in 'leadership' processes. The case suggests effective 'management' of the business units. Acquisition processes and directives for change had been handed down from the new owners, and business units were monitored. Business units did not however, experience the required 'leadership' guidance and were not being guided or transformed in a common direction. The case suggests that the only 'leadership' being provided to the respective business unit employees was from the original (pre-acquisition) founders of each organization. Beliefs and assumptions for operating the newly integrated organization therefore, continued to be derived from their original culture and management. Management involvement did not facilitate the transfer of integration plans, nor drive cultural integration change (Marks and Mirvis, 2001).

Management's role as leaders is also to ensure that key 'not negotiable' values, beliefs and norms are abided by and not rejected by differing organizational cultures (Simpson, 2002). It is imperative those leaders set the proper tone for the acquisition and that they articulate the principles for the new organization. The principles must then be executed and monitored, and management must be prepared to act accordingly (Marks and Mirvis, 2001; Duffy, 1999). Many of the concerns in the case were due to new systems, strategies and processes not being accepted by employees.

According to Schein (1992) and Iles (2001), the unique and essential function of leadership in the acquisition and integration process is its role in manipulating culture. Leaders can first gain an understanding of what needs to be done to manipulate the culture and then 'unfreeze' it so that meaningful change and acceptance can take place (McShane and von Glinow, 2000). Strong integration leadership between the business units would therefore provide assistance in re-aligning business unit management and employee attitudes. It would also provide opportunity to relieve situations creating error, misunderstanding and conflict between employees from different business units.

Respondents indicate that the business integration lacked management and leadership involvement. Effective leadership was particularly important in the process of allowing employees within the Australian business unit to feel that they were 'included' as an important part of the acquisition process (Hagberg Consulting Group, 1998). Australian respondents indicated that Australian employees had a relatively close 'bond', which was maintained by the 'business focus' and culture. Employees therefore believed and assumed that they deserved to be part of, or at least forewarned of management decisions. Australians also desired effective avenues to challenge management decisions if decisions did not suit the 'Australian' business situation. Strong leadership was required within the Finnish business unit to support the systemic and bureaucracy structures within the culture. Finnish leaders are expected to deliver directives to employees while at the same time support and challenge the bureaucratic system where needed. This was perceived necessary to accommodate cultural deviations and requirements during integration with the Australian operations.

#### **Cultural Understanding**

Achieving an awareness and understanding of differing national cultures within companies can be a difficult task (Hall, 1965; Iles, 2001). Hofstede (1984) argues that members of any particular national culture or organization either reject the notion of cultural dimensions being at play and feel threatened or upset by the concept, or find that gaining a better understanding of cultural differences is an enlightenment. Once employees accept the impact of cultural limitations and differences, understanding takes place.

There are no right or wrong perspectives when dealing with issues of culture. Assumptions, views and beliefs of any culture are elements bound in ethnocentricity (Schein, 1992) and translate in different ways and means

of achieving goals. Increased cultural openness allows staff to assess the situation within its cultural contexts and be more open to differing views. This assists in removing the 'us and them' syndrome, which often leads to disruption or conflict between international business units (Hofstede, 1984).

The lack of cultural understanding and appreciation for the 'other' culture appeared to be an important cause of difficulties experienced in the integration of the Finnish and Australian business units. There was little evidence by management or employees, acknowledging or accepting cultural differences as a way of explaining and approaching difficulties or tensions that arose during the integration process.

Steps to improve the levels of understanding and awareness of cultural differences in the business units would have benefited the operations of the company overall. Respondents provided no suggestion of specific formal culture training, assessment or planning being conducted in the company prior to, or during the integration. In addition, individuals from both business units had relatively low levels of cultural awareness or cultural 'openness'. Low levels of cultural awareness led to assumptions that most individuals operate on similar beliefs and underlying assumptions. Australians assumed that Finnish employees think and respond similar to themselves and visa versa.

#### **Cultural Change**

Academics and business leaders advocate that cultural change in young, newly acquired organizations should be limited (or even avoided) if an acquired organization is already successful. This is especially the case if there is little effective return from planned changes (Schein, 1992). Adams (2002) argues that anything that slides under the banner of cultural change is doomed to failure. One of the most fundamental mistakes is to imply to organizations that they can't maintain and live their own culture.

Change is usually difficult for people to accept, as it is natural for humans to hold on to established methods, beliefs and ways of doing things (Schein, 1983). Culture forms and acts to be a stabilizing force within a group or community and therefore becomes difficult in itself to change (Hofstede, 1980). Respondents indicated that they believed the 'other' business unit, or associated culture, was attempting to 'change' the way things were being done in their business unit. This was particularly the case with Australian respondents who complained that 'the Finnish owner had attempted to change almost everything within their business since acquisition.' The Finnish respondents also commented that the Australians were not responding particularly well to the owner's change initiatives.

The case confirms Kellogg's (2002) suggestion that people perceive their own organizational culture is the 'best' and 'most suitable' for post acquisition operations. Inevitably, what remains when the acquisition dust settles is an 'us vs. them' environment. Usually, the more established, 'stronger', and politically dominant company ends up applying rules and changes to the cultures of the 'weaker' company. Kellogg (2002) also promotes the concept that acquiring companies should 'not fix what isn't broke', and change should only be instigated where required in acquisitions. Australian respondents believed the business unit was being adversely affected by 'territory marking' change, having little reason and producing little benefit. Many of such changes were said to have served only to increase tensions and resource wastage.

Finnish embedded bureaucracy and size invariably contributes to dominance over the acquired companies (Fincham and Rhodes, 1999). In the case, change was reported to be promoted without considering reasons as assuming dominance was reportedly the 'mind set' of Finnish personnel while Finnish management assumed that directives were followed by employees. Australian respondents indicated a desire to maintain their original culture and believed they knew how to manage their operations more suitably than the new Finnish owners. Culturally 'unsuitable' and unsubstantiated change directives therefore, were criticized, or ignored by the Australian employees who reflect the Australian dislike for authoritarianism. Australian employees also require greater transparency and interaction before accepting change and management can expect continued resistance if employees are not totally 'sold' on promoted ideas.

#### **Building Trust**

The construction of trust is the culmination of numerous components within the relationships and operations of the company. Trust occurs when there are positive expectations of another party's intentions and actions in risky situations (McShane and von Glinow, 2000). Organizations cannot operate effectively without trust (Asherman, Bing and Laroche, 2000). Trust between individuals within business units was found to be a serious issue for many

of the respondents. The development of trust was identified and accepted as an important part of dismantling cultural barriers and improving integration of the units.

Close interactions and face-to-face meetings accelerate the accrual of trust. O'Hara-Devereaux and Johansen (1994) states that face-to-face encounters are irreplaceable for both building trust and repairing shattered trust. The violation of trust tends to affect ones approach to cross-organizational citizenship behaviors and interpersonal relationship behaviors. With continued violations of trust, employees' psychological contracts can move from being relational to transactional, making dealings between offices less cooperative (McShane and von Glinow, 2000). In the case situation, it was inferred that there were high levels of trust between employees within each business unit. There was also a degree of trust 'between' business units, although more fragile, difficult to accrue and exposure based. Respondents also indicated that the individuals in each business unit had little opportunity for direct contact, due to the distance between locations and the relative difficulty in communicating on a regular basis.

Maintenance of trust requires different input and output expectations in different cultures (Asherman, Bing and Laroche, 2000). For example, in Australia employees gained trust through delivering on time and carrying out commitments. Australian respondents felt a decline in trust of Finnish personnel if they did not effectively respond to operational requests. Whilst members of business units generally trusted each other from the start of the integration process, trust decreased between operations in particular areas.

A cultural integration plan must recognize the imbalance of forwarded trust between business units. As an effective basis towards building stronger trust between the business units overall, Cummings and Bromiley (1996) suggest proceeding in steps that promote trust, whilst advocating strong tolerance between employees to allow for the 'unknowns' of culture. In addition, Asherman, Bing and Laroche (2000) advocate encouragement of 'emotional bonding' and 'conceptual understanding' between global teams where possible. Emotional bonding can be achieved through greater opportunity for face-to-face meetings, 'after hours' activities, etc. Conceptual understanding is achieved through providing employees with an intellectual understanding of how cultural similarities and differences influence business transactions. Whilst difficulties in interpretations of assumptions are still likely to arise in operations, the method provides a positive basis upon which trust can form. At an operational level, higher levels of trust were offered to the Australians by the Finnish operations, than to the Finnish by the Australian.

#### **Monitoring the Integration Environment**

The basic goal of environmental monitoring includes being as specific as possible, determining the exact nature of problems and concerns (operational or cultural), identifying what it would take to resolve the situation, and whether employees had the resources or required understanding to deal with the situation (Buono and Nurick, 1992). Without environmental monitoring, employees can become frustrated and annoyed with issues. Some respondents indicate that visible attempts to monitor and identify issues of concern would have generated a more positive atmosphere for business integration – a feeling that management was actually interested in assisting or rectifying situations.

Management benefits from providing facilities to monitor, identify and manage the cultural integration process and at the same time create an opportunity to identify concerns within each of the business units (Adams, 2002). The monitoring of environmental conditions at the different business units would have provided management with a better understanding of cultural issues and needs of employees.

The case revealed a diversity of concerns and issues resulting from the integration process. Respondents believed that the issues were not effectively identified by the company or management provided no appropriate resolution and management has no realistic 'picture' of the post-integration company. Rather than finding solutions to concerns and issues, employees indicate they are left to 'fend for themselves' with difficulties and frustrations of the integration process. A failure to monitor the post-acquisition situation also meant that management was not fully aware of the knowledge and training needs of employees operating in the cross-cultural environment.

## Conclusions

The process of integration after acquiring an organization directly reflects the planning and actual approach of the acquisition. Even so, both organizations involved in the acquisition and integration contribute to the complexity by means of their national cultural background and the individual organizational culture. Although it is virtually impossible to measure the impact of culture differences on the moral and productivity, there is little doubt over the adverse impact of culture differences on the integration process.

The Finnish-Australian case indicates the dissatisfaction experienced by Australians, mostly attributable to cultural differences. Although the acquisition was characterized by some business planning there was no cultural planning to anticipate differences in business cultures and future problems for integration. An important aspect of successful integration is the establishment of a shared vision and understanding of purpose of either parties in the larger picture, a type of role identification. This exercise should not be done in isolation or without consultation and it is imperative that all concerned parties are involved in the process. The case implies that clear communication before, during and after acquisition and integration is deemed imperative to avoid the 'us vs. them' atmosphere. In addition, both management and leadership must be provided throughout the acquisition and integration, both in terms of hard (profit, structure) and soft (staff, culture) issues. While a clear overall vision and strategic goal is imperative to ensure cooperation, allowing business units freedom in identity is crucial to allow gradual integration. The most important aspect derived from the case implies the importance of understanding and managing organizational and national culture. Although not conclusive, evidence suggests that the nature and poor management of differences in organizational culture indeed sets an environment that can make or break initial successes of acquisition integration.

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# Cultural Dimensions of Globalization in East Asian Economies

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## Abstract

Globalization depends not just on the choice of economic policy, but rather on the important role played by culture in shaping economic behavior. In this paper, we review some historical aspects of cultural influences that have shaped the evolution of economic growth across countries in space and time. While culture itself can be influenced by economic dynamics, we examine here the reverse causality role played by culture in determining the speed with which countries in general, and those in East Asia in particular, influence the evolution of economic policy choices.

## Introduction

Throughout history, either by action or through reflection, different societies have responded in various ways to the major problems they have confronted. As this has taken place, it is clear that the major challenge has been to find fundamental solutions to the physical and moral problems that have arisen. This said, those responses that have been effective in shaping social order have been crafted to the specific conditions affecting different populations :

- At a cultural level, i.e., in the domain of the spiritual and the arts, through modes of reflection, behavior, religions, and beliefs :
- At a scientific level, i.e., in the domain of technical knowledge, modes of production, communication, and in terms of access to subsistence resources affecting human suffering and poverty.

Some cultures (as in those that have evolved around Confucian thought, Descartes, or Mohammed), and certain other civilizations (those of fire, of stone, the railroad, up through the information age) have progressively become zones of major influence in the current wave of globalization. Interactions across these cultures and civilizations have produced both absorptive and confrontational responses, each responding to some initial impulse. Among these events we note :

- Europe of the Enlightenment, the Protestant Reformation, and the Christian crusades of the Middle Ages
- China and other parts of Confucian Asia at the time of the Mongol empire of Genghis Khan, Bāber, and Tamerlane
- The Middle East of Mohammed and the successor Caliphates
- Islamic Africa after the destruction of Carthage by the Arabs in 698 in the footsteps of the Phoenicians, Romans, and the Vandals. Arabization of the North African Berbers took place even as powerful Berber dynasties such as the Almoravids and subsequently, the Almohads, ranged up to the center of Spain, and south to Senegal in West Africa.
- Pre-Colombian America, in particular, the spectacular Quicha culture of the Incas who founded a great empire in the 13th century before being overtaken by Spanish conquistadors in the 16th.<sup>1</sup>

Cultural differences from these exchanges have produced varying responses. The willingness of subordinate populations was driven by the extent to which dominant forces conveyed superior humanist values. Those who were less disposed to absorb the newly dominant ideas were treated by dominant powers as ignorant, miscreants, and were brought to conform by a combination of reason, conviction, and more than occasionally, by the force of arms.

Organization of economic, social, and political life flowed from the initial rounds of exchange. It flowed from respect for the same cultural values and consequently defined the expansionary group framework tied to a religion that evoked a common stakeholder sense and social conscience. In this regard, we note :

- Cultural cohesion led historically to a search for a balance of economic and political power associated with geographic domination. In more recent times, we have seen not only the balance of power among

countries, but equally in the balance of influence across regions.

- Asia in particular shows us how clearly modes of thought and religions, even those imported from elsewhere, have influenced entire continental cultures, from central to east Asia.
- On a larger scale, culture deepening and diversification stimulated or restrained the process of development. Whether it deepened or diversified depended on the degree of openness in receptor cultures, and thus posed profound implications for the prospects for economic, political, and social development.

#### **The Impact of Intercultural Dynamics on International Relations**

Only fifty years ago, it took forty days to travel from Paris to Hanoi and more than a week for arrival in Cotonou. The means of transport were the railroad, plus ocean passenger boat, as well as local roads. Now it takes one night and six hours to cover the same distances. When transport made travel a distant affair, so too was the likelihood of cultural exchange, a fact that has now collapsed into both air travel, satellite and cable television, as well as the internet.

It used to be that when a British engineer took up an expatriate position in India, or a French surveyor took up a position in the construction of the Dahomean railroad between Cotonou and Parakou, one left for a stay of several years. Now, an American, German, or French specialist who may be working for a branch operation in Shanghai, can take regular home visits for the holidays, in addition to a summer vacation. Today's expatriate worker is on the road more often than staying in one place, and undertakes far more consultative projects instead of staying in any one place over a professional career.

With the compression of space and time of today's world, once distinct western, eastern, African, and other zones of influence have come under increasing pressure to adapt to new forms of intercultural exchange. These speed of these interferences has, in very little time, shaken economic and commercial trading patterns, and thus the very spirit of diplomatic political and strategic initiatives that used to characterize international relations. These more rapid exchanges of today's globalizing world are shaping, in effect, the foundations of inter-cultural communication, as well as the scope of economic, commercial, political, and social relations.

On the scale of contemporary history, these changes are relatively recent. However, intercultural communication trends are causing Westerners, at least, to ask themselves what is the most efficient manner to engage in trade with newly globalizing countries, in particular, the Chinese and Indian markets, which by themselves have more than 2.5 billion consumers.

As Westerners have sought to adapt new strategies for trade, they also have confronted a periodic clash of values with their prospective eastern partners. Chief among them is the disruptive effects of the Chinese occupation of Tibet, and the pro-democracy demonstrations that took place in Tianenmen Square in Beijing in the 1980's and which led to considerable loss of life. China's leaders know full well the concern that these events have posed to prospective trading partners from the west. They have thus sought to downplay such displays of « hard » power in favor of more subtle economic innovations that could raise standards of living. Adoption of market-driven reforms have enabled Chinese consumers to enjoy for the past fifteen years annual rates of growth in income, and in which an increasing number of elites have gone to western institutions for training in the latest business and technical innovations<sup>ii</sup>.

In turn, Asian leaders have also wrestled with what kind of strategy would be most effective in their prospective opening to western firms and consumers. Mao Tse Tung's closed economic model offered few examples, and so it fell to others, notably Mao's successor Deng Xiaoping, to craft a suitable strategy. That strategy can be summarized as : China, a country with a Chinese spirit plus western technology<sup>iii</sup>.

Outside of Asia, other countries have also wrestled with the choice of an effective strategy for globalization. For many in Africa, globalization has involved new partnerships that have not simply produced a replay of former colonial strategies, i.e., outlets for finished goods and services from developed country producers while relying on primary resources that by default, African countries have for so long been producing<sup>iv</sup>. In short, whether we are looking at East Asia, Africa, the Middle East, or Latin America, the compression of time and space by newly developed technologies of travel and communication have cast a new light on the challenge of globalization.

#### **Changes in the Global Balance of Power and in Zones of Economic Influence**

Prior to any exchange, one usually proceeds on the underlying assumption that the values, beliefs, and convictions of one's background predetermine that superiority of one's cultural values, and scientific and technical methods. The question is when intercultural exchange takes place, what mode will predominate<sup>v</sup>.

History shows that when there are differing cultural models among newly globalizing economies, the inevitable clash of ideas produces a synthesis shaped largely by the balance of power. The resulting balance of power then determines the orientation of international relations. Moreover, it is not just that the resulting balance of power shapes relations within a country or region in terms of various ethnic groups, but also a re-orientation of relations between one region and another. Dominance thus shapes attitudes and perspectives at a regional level, and it does so not just in terms of state relations but also in terms of international business capacities and strategies. As evidence of this socio-economic dynamic, we note, for example, the following regional dynamics now in play.

In Asia, India, China, and Japan, as well as within ASEAN and APEC, historical conflicts have produced aggressive outward looking policies with dramatic results. For the past fifteen years, for example, China has enjoyed annual rates of growth in its GDP of over 9 percent, and with an increase in exports by 28 percent just between the 2001 and 2003 period. China's economic expansion exerts a strong influence on neighboring countries and makes it a new center of growth for its neighbors. In fact, until recently, there was much talk about globalization, but henceforth, the notion of a « Sino-global » model is redefining relations among all countries in the region. China is thus assuming the leadership mantle that was once largely associated with Japan.

In Europe, Germany, France, Great-Britain and Italy are adopting nationalist positions relative to the European Union. Part of this transformation has taken place in light of the uncertain identity of the European Union which has expanded from the original six members of the Common Market to its current membership of twenty-five countries, and a prospective expansion to twenty-eight. Much of this uncertainty derives from the legacy of formerly East European economies who have seen their political fortunes defined as much by trans-Atlantic relations during the Cold War as much as by the economic policies of the EU. One example of this was the decision by Poland to purchase US military fighters instead of those by a continental producer such as Dassault, and this decision took place after Poland had been admitted to the EU. What this signifies is that for many East European countries, they view NATO and/or the US as providing stronger security guarantees in comparison to the still-unfolding EU defense system.

In Africa, key countries such as Egypt, Libya, or South Africa project themselves as leading representatives on behalf of the continent. They do so in face of the difficult challenge of establishing closer ties among countries in the region, be that in terms of complex international organizations that are difficult to organize, to coordinate, to promote and preserve, examples of which include ECOWAS, SADCC, and the defunct EAU. Regardless of which country, or group of countries seeks to play a leadership role, the goal is to articulate a common vision for the continent as well as to define a common set of strategies in terms of globalization trends and negotiations to that effect, such as with the WTO.

Tables 1a and 1b below provide a summary profile of basic characteristics of key regions we have noted in the context of the ongoing debate over globalization.

TABLE 1A: ECONOMIC AND DEMOGRAPHIC PROFILE OF KEY REGIONS IN THE WORLD

Country	Population, in millions, 1988	Population, in millions, 2001	2001/1988 Ratio	Country	GDP, in \$billions, 1988	GDP, in \$billions, 2001	2001/1988 Ratio
China (+HK)	1,085.10	1,269	1.17	USA	4,488.0	7,182.0	1.60
India	781.4	1,016	1.30	Japan	1,923.7	3,954.0	2.06
USA	243.8	282	1.16	Germany	881.8	2,067.0	2.34
Indonesia	170.6	211	1.24	France	715.5	1,453.0	2.03
Brazil	141.5	171	1.21	Gt. Britain	586.7	1,447.0	2.47
Russia	132.2	146	1.10	Italy	604.1	1,186.0	1.96
Pakistan	102.2	138	1.35	China (+HK)	353.8	1,315.0	3.72
Bangladesh	102.6	131	1.28	Canada	402.4	650.0	1.62
Japan	122.1	127	1.04	Brazil	287.3	482.0	1.68
Nigeria	102	127	1.25	Spain	233.1	616.0	2.64
	1988	2001	Ratios:		1988	2001	Ratios:
Of the Top 10 Countries:	2,984 (57%)	3,618 (59%)	1.21	Of the Top 10 Countries:	10,476 (75% of world)	23,500 (80% of world)	2.24
6 are Asian	2,364 (45% of world)	2,900 (48% of world)	1.22	2 are Asian	2,277 (16% of world)	6,300 (23% of world)	2.49
APEC - AM		1,800		APEC - AM		7,000	
World	5,200	6,060	1.17	World Total	14,000	30,000	2.14
				World Per Capita	2,700	4,950	1.83

\*excluding Mexico

Source: Data taken from « Etat du Monde 2005 » (Paris : éditions la Découverte, 2004)

TABLE 1B: ECONOMIC AND DEMOGRAPHIC PROFILE OF KEY COUNTRIES IN THE WORLD

Country	Population, in millions, 1988	Population, in millions, 2001	2001/1988 Ratio	Country	GDP, in \$billions, 1988	GDP, in \$billions, 2001	2001/1988 Ratio
China (+HK)	1,085.10	1,269	1.17	USA	4,488.0	7,182.0	1.60
India	781.4	1,016	1.30	Japan	1,923.7	3,954.0	2.06
USA	243.8	282	1.16	Germany	881.8	2,067.0	2.34
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Brazil	141.5	171	1.21	Gt. Britain	586.7	1,447.0	2.47
Russia	132.2	146	1.10	Italy	604.1	1,186.0	1.96
Pakistan	102.2	138	1.35	China (+HK)	353.8	1,315.0	3.72
Bangladesh	102.6	131	1.28	Canada	402.4	650.0	1.62
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	1988	2001	Ratios:		1988	2001	Ratios:
Of the Top 10 Countries:	2,984 (57%)	3,618 (59%)	1.21	Of the Top 10 Countries:	10,476 (75% of world)	23,500 (80% of world)	2.24
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APEC - AM		1,800		APEC - AM		7,000	
World	5,200	6,060	1.17	World Total	14,000	30,000	2.14
				World Per Capita	2,700	4,950	1.83

Source: As in Table 1a above.

### Mastery and Management of Leadership

For a given region or country, the balance of political and economic power can exert a major influence on not just the shape of local culture but also in terms of linguistic discourse<sup>vi</sup>. Culture may serve as the pretexte with economics as the end reference. Political dynamics, as much as economic ones, revolve around the quest for means of developing partnerships in the form of clients and suppliers, in such a fashion as to establish effective means of projecting influence and power, of states.

Diplomatic initiatives usually reflect strategic efforts to influence target countries in such a fashion as to influence local leaders (« vote as we do »), as well as local consumers (« buy our products »). Given this framework, contemporary globalization proceeds with shifts in the balance of power clearly in evidence, as can be noted in the following patterns :

- Creation, followed by a mechanism of control, on the evolution of forms of behavior
- Spread of cultural, artistic, and linguistic concepts.
- Mastery, including a manipulation of political, psychological, and economic determinants. This includes efforts to respond to local nationalist sentiment, emphasis on common historical ties or in a shared system of beliefs and values, as well as emphasizing mutual benefits of commercial ties.
- Coordination of the key levers of globalization as they pertain to international geopolitical strategies through a harmonization of modes of operation as well as fostering joint economic partnerships.

While these strategies are typical of western firms seeking to expand their operations in remote areas of the globe, they are no longer the only ones so engaged. As local populations become engaged in the global economy, the success of foreign firms depends on an ever more rapid adaptation to them as both consumers and as producers, in terms of their preferences as well as in terms of their purchasing power. This becomes even more challenging as demographic dynamics diverge : Europeans are aging while Asians and Africans are becoming younger as their populations expand at differential rates. As a result, marketing goods and services must take into account these widening differences.

Beyond demographic divergences, firms also confront shifts in the balance of natural resources. Primary materials, in particular hydrocarbons, are becoming more expensive, creating greater pressure on resource substitution and conservation strategies. The price of exhaustible natural resources depends first and foremost on the costs of discovery, extraction, production, refinement, and distribution. While recent increases in real prices have led to new incentives for exploration, there have not yet been comparable discoveries to those that were realized in the earlier decades of the twentieth century. This has caused in turn a more intensive shift to nuclear energy for electricity (as in the re-activation of uranium mines in Niger) as well as an expansion of basic research in the commercialization of renewable energy resources, in particular cost-effective increases in the efficiency of solar radiation technologies.

At the same time as the shift in primary resources proceeds, countries are experiencing shifts in the historical balance of comparative advantage. We see this with the diffusion of commercial nuclear energy technology and the attendant military risks that this entails. But it also takes place as firms seek to maintain competitive costs by closing homeland branches and outsourcing production to assembly plants in Asia and elsewhere. And this is not just limited to western firms. We see a comparable shift by Japan of many well known firms shifting production to less expensive areas, as in the shift of production to South Korea and more importantly, to mainland China.

One basic effect of this transformation is that newly globalizing economies such as China are able to enjoy more rapid increases in income, along with a fundamental shift to a more global standard of living. As this occurs, hitherto local national ideologies, as in the shared poverty philosophy of Gandhian India and Marxist China are being forced to adapt to the new global realities. Pragmatism, not dogmatism, becomes the order of the day. In places such as Vietnam, instead of relying on the Marxist vision of Ho Chi Minh and the historic struggles against French, Japanese, and U.S. domination, the code phrase today is « make money, not war. » This applies no less equally to China, where Confucian morality and the Marxist monopoly of the political reins of government are evolving into a mix of unbridled capitalism and corruption. This apparent pragmatism runs counter not just to local political ideology, but also to historical experience, where Buddhist, Shito, and Taoist religious beliefs defined for centuries the ethical basis of family action, professional identity, and political legitimacy.

What does this cultural clash imply ? While it may simply be a matter of time before dominant power redefines a local paradigm for governance and economic exchange, we see in the interim many far from resolved patterns of behavior. For example, in east Asia, four countries (China, India, Indonesia, and Japan) represent themselves forty-six percent of the world's population while producing 22 percent of the cumulative GDP of the 200 countries in the world (\$7 trillion out of \$31 trillion in 2004). As our comparisons in Table 1b have shown, the extraordinary transformation of China has yet to be understood not just in Asia, but in the rest of the world. Will, for example, China remain an outsourcing country for newly diversifying European, North American, and Japanese firms, or will its newly emerging economic strength change the global balance of power in ways that have yet to be understood or foreseen? <sup>vii</sup>

In other parts of the world, economic growth and development is far less dramatic. Many countries in Sub-Saharan Africa continue to stall in the face of both new global economic realities as well as ongoing continental crises. Sub-Saharan African countries continue to lose market share to Asian producers in global primary exports. In addition, ongoing epidemics such as the unchecked spread of HIV/AIDS destroy the ability of leaders to mobilize resources, with the result that some countries have become failed states in most senses of the term, as in the collapse of governmental institutions in Somalia, Sierra Leone, and more recently, in the Democratic Republic of the Congo and Rwanda. The prospect for these countries is not promising, despite the newly embraced Millennium Development goals.

As to Europe, we have already noted the issue of aging populations that creates higher dependency rates than ever experienced before. In addition, the newly expanded European Union creates higher administrative costs of adjustment, not just in the provision of welfare state services, but also in terms of agricultural subsidies that threaten to further drag down rates of economic growth.

While these shifts take place, historically trading surplus countries such as Japan and Germany find themselves less capable of financing structural deficits elsewhere (as in the U.S.), but also in terms of stimulating world economic growth and trade. This is akin to a zero sum game – each surplus must be lent, just as each deficit must be financed. If this remains an essentially north-north phenomenon, then little is left for stimulating the emergence of newly developing market economies, be they in Asia, Africa, or Latin America, and global economic inequality will most likely increase along with rising levels of frustration.

#### **Political and Economic Regional Responses to Globalization**

Autarky is no longer a choice for countries in today's global environment. Regardless of size, countries survive on the basis of productive international partnerships that respond to new levels of global competition. We see this evolving system of partnerships in various configurations: The European Union, with 25 countries, 750 million people, \$10 billion in cumulative GDP; ASEAN<sup>viii</sup>, a mosaic of ten countries, 500 million people, \$750 billion in cumulative GDP; NAFTA, consisting of the Canada, Mexico, and the United States, consisting of 420 million people, and a cumulative GDP of \$11.5 billion; and ECOWAS, with 16 countries, 263 million people, and a cumulative GDP of \$173 billion.

Multinational political re-alignments on a regional level proceed on the necessity of creating viable alliances for all, regardless of national cultural traditions or historical experience of each of a group's member states. As such, it is not surprising to find widespread divergences among each grouping: Indonesia's 220 million inhabitants with Brunei's 350 thousand; Thailand's \$125 billion GDP with the \$1.4 billion of Laos; A \$10.5 billion GDP of the U.S. alongside the \$600 billion of Mexico; Nigeria's 133 million population alongside 1 million Gambians. Nevertheless, neighboring alliances in a given region provide a bridge between purely national policies pursued at a single state level and the irreversible process of global economic integration.

Regionalization typically unfolds in an evolutionary pattern that brings together variable structures of exchange: bilateral agreements, free trade zones, customs unions, common markets, or economic and/or political unions. By their very essence, regionalization initiatives are driven by the pursuit of common objectives that seek, in theory at least, to raise questions that might otherwise divide a partnership. In Asia, for example, regional partnerships have focused on harmonization of product and service standards, as well as on greater coordination of policies within the respective financial markets of participating countries. One fortuitous byproduct of this process is the periodic meetings of country leaders who face sometimes difficult political choices but whose gatherings place primary emphasis on strategies for promoting greater economic and commercial ties. In this sense, these gatherings often facilitate an ongoing means of communication regarding political issues that otherwise might have few means of resolving.

In Asia, the process of regionalization operates with the search for consensus and a commitment to reduce political, economic, commercial, and cultural shocks that might otherwise unfold (« iron pots and clay pots »). In so doing, they have made it easier to address periodic differences, as in the Spratley and Parcels issue over the South China sea involving Malaysia, Vietnam, Singapore, and Brunei<sup>ix</sup>; as in the tension between Malaysia and Singapore over the development of the Malaysian railway system; as in the Indonesian and Singapore territorial jurisdiction

issue ; and as in a comparable issue between Singapore and the Philippines, among others. Table 2 provides a brief profile of the member countries of ASEAN.

TABLE 2: ECONOMIC PROFILE OF ASEAN MEMBER COUNTRIES(2003)

	Annual Growth Rate	GDP in \$billions	PPP GDP per capita in S.U.S.	Real Per Capita Income, in S.U.S.	Population, in millions	Exports, in S.U.S. billions	Imports, in S.U.S. billions	Trade Balance, in S.U.S. billions	External Debt, in S.U.S. billions
Singapore	11.0%	91	25,353	22,700	4	134.0	112.3	21.7	0.0
Malaysia	6.5%	86	8,513	3,588	24	98.2	90.0	8.2	41.3
Thailand	3.1%	123	5,797	1,952	63	67.9	58.7	9.3	70.3
Indonesia	5.1%	150	2,685	704	213	62.0	55.8	6.2	138.0
Philippines	3.6%	83	3,622	1,038	80	38.3	28.9	9.4	51.9
Vietnam	4.0%	40	1,755	476	84	10.0	9.3	0.7	21.6
Brunei	2.5%	6	20,100	20,333	0	2.6	1.8	0.8	0.0
Myanmar	4.5%	40	1,200	816	49	1.2	1.4	-0.2	5.1
Cambodia	4.0%	4	1,286	333	12	1.0	1.1	-0.1	2.2
Laos	4.0%	2	1,726	333	6	0.4	0.5	-0.1	2.2
ASEAN	5.5%	625	3,321	1,168	535	415.6	359.8	55.8	332.6
World	1.9%	33,000		5,280	6,250				
USA	1.1%	10,200	33,872	35,400	288	773.0	1208.0	-435.4	814.0
Japan	2.3%	4,500	23,780	34,600	130	460.0	343.0	117.5	0.0
China + HK	7.4%	1,261	3,382	981	1,285	442.0	417.2	24.8	147.6
France	2.8%	1,400	21,897	23,400	60	299.0	275.0	24.1	45.0

Source : *Asiaweek* April 27, 2004

Regional partnerships in Asia are consistent with research findings on strategic alliances. We find, for example that cross-border alliances in South-Asia work well in enabling ASEAN membership countries to take advantage of their respective factor endowments or to benefit from neighboring infrastructure, as in Indonesian links to Shenzhen province in China, but also ties between southern China provinces as Laos, Cambodia, and Myanmar. At the time of its creation, ASEAN was based largely on relatively rich capitalist market economies to provide a sanctuary against a relatively poor and largely communist group of potentially hostile neighbor countries (China, Vietnam, Cambodia, and Laos). Yet, following the end of the war in Vietnam in 1975, the end of the struggles between the Vietnamese and the Khmer Rouge in Cambodia, and finally the end of the Cold War in the 1980s, ASEAN took on a more dynamic character. Growing from six to ten members, it then emerged a mixed group of countries that looked for some measure of security within the context of a newly expanding China. Finally, China's post-Maoist turn to a more market-driven strategy brought about stronger ties with Japan and South Korea, with China now participating on an increasing frequency in meetings of ASEAN member countries.

#### **The Role of Culture on Asian Development Practices**

As we have noted, Asian economies reflect a strong presence of both Buddhism and Islam, with a philosophic perspective borrowed from Confucianism, Taoism, and Shintoism. Displaying personal discretion and moderation, Asian societies view their economic functions through these moral lens, and it shows in terms of actions and behavior in social organizations that acknowledge, reward, and reinforce political harmony. The corresponding hierarchical structure of society in Asia manifests itself in terms of attitudes of workers toward their superiors, of students toward their professors, and of citizens toward their leaders. This hierarchical model shows up in the economy with vast networks of reporting relationships, as in the Japanese *keiretsu* (that replaced the *zaibatsu* of the 1930s) and in the Korean *Chaebol*. One historical irony in all of this is that the Confucian model of hierarchical order can create the very alienation that Marx so strongly criticized of the emerging industrial capitalist world, yet which became the dominant ideology in China under Mao Tse Tung, and which persists among his successors even today<sup>x</sup>. Thus, while a corporate scandal can produce great turmoil when it reaches the highest levels of authority, in general, the Confucian model dominates most modes of social and political institutions, always with the underlying notion of a steady path toward nirvana<sup>xi</sup>. It is therefore not surprising that veneration for one's elders and ancestors translates into a similar attitude of deference toward an aging corporate or political leader.

A basic question is whether the subordination of individuality in this Asian model is a recipe for success. Where it becomes problematic is with the opening of an economy to international trade, and in the fixation of decision-making in such a fashion that innovation can proceed. What is increasingly clear is that once the winds of globalization become strong, there is less emphasis on a rigid hierarchical order and a greater acknowledgment of individual leadership in the face of risk. This is particularly true in the eastern part of China, where some 400 million live and work in a more dynamic global environment than those in the interior, and it also shows in Korea,

Vietnam, and China where increasing exposure to those trends erodes the once rigid approach to institutions that traditional Confucian values have upheld. « Make money, not war » has become a more dominant motto among the youth in many of these countries, where historically their closed borders reinforced a sense of distinction that open trade can no longer support. And it has begun to accelerate in China since its admission to the World Trade Organization, which reinforced the rapid economic growth that the economy has been experiencing, and which is changing the balance of power in fundamental ways throughout East Asia. In such circumstances, a deference to authority of elders is giving way to a more aggressive and entrepreneurial spirit. And it also has its political counterparts in periodic and ongoing uprisings for change, as in Indonesia and in the Philippines<sup>xii</sup>. One can thus ask what about the collision of values in many of these countries.

#### **Singapore: A Lumbering Dragon**

Singapore, with its mixed population of Malays and ethnic Chinese is an authoritarian parliamentary republic. Established in 1965 following its secession in 1965, wealth in this tiny state of 618 square kilometers came during the 1990s as global trade and finance expanded in the region. With a 2000 GDP of \$85 billion, Singapore's per capita GDP of \$28,000 makes it one of the richest countries in the region. Yet, the apparent success of this authoritarian state belies its underlying problems. What both President Lee Kuan Yew and his successor Goh Chok Tong have been compelled to acknowledge is the need to blend the religious beliefs of its Malay Moslem population with those of its Chinese Confucian merchants, a delicate balancing act that must be seen as rational to all. As a result, public whipping for petty crime is widespread, as well as an aggressive police force that zealously prosecutes all who smoke in public or throw trash on the ground.

Singapore's basic division lies between its Moslem Malay majority who dominate political life and its ethnic Chinese minority who dominate economic life. Of its population, Singapore consists of some 23 percent of min-nan Taiwanese descent, 12 percent of Chow Chew origin, 9 percent Cantonese, 5 percent Mandarin, with 11 percent Malay and Anglo-Australians at 5.2 percent. In terms of language use, Taiwanese Chinese accounts for some 40 percent of speakers, Malay represents another 12 percent, and Cantonese at 9 percent, with the rest speaking a mix of Tamil and English, sometimes referred to as « singlish » for « Singapore English », as it has come to be known. And within this mosaic, one finds a strong national sense of identity across all groups, and at the same time with respect for differing religious traditions.

Singapore's education system is highly developed, from kindergarten to the university. Social equality is meticulously upheld, and in which parents are free to choose which of Singapore's four language schools they may wish for the education of their children. At the end of secondary schooling, 87 percent of students speak correct English and 65 percent speak both English and Chinese.

A major driver in Singapore is its high level of trade dependency, at a level rivaled only by Hong Kong (with exports at \$145 billion and imports at \$128 billion as of 2001). What propelled Singapore to this role in part was the impact of the Cold War in the region. Both Hong Kong and Singapore came to function as entrepôts for trade among firms in Taiwan, South Korea, Japan, and China. Functioning first as a port of call, Singapore then evolved into a major industrial assembly economy.

Despite these advantages, Singapore has faced limits to its potential. Among them is the outbreak of SARS<sup>xiii</sup> in February-March of 2003, which resulted in an immediate quarantine on foreign trade, the firing of some 800 employees in the port as a result, and the growing strength of neighboring ASEAN<sup>xiv</sup> countries, thereby undermining Singapore's image of a full employment high growth economy. As a result, for the first time since independence in 1965, Singapore has seen its growth rate fall to below 2.5 percent, and was actually negative in 2001. What authorities have done in response is to accelerate parallel trade agreements with ASEAN member countries, notably Australia in 2001 and the US in 2003. Yet even these agreements may pale in comparison to the extraordinary growth of China, and which is attracting much investment from Singapore's ethnic Chinese toward both mainland China and Taiwan.

#### **Malaysia : Pragmatic Coexistence of Cultures**

Malaysia is a former British colony that evolved into an independent constitutional monarchy beginning in 1957. Its long peninsular configuration gives it some unique geographic advantages. With some 330 thousand square miles of land, it is separated by the South China Sea into the Malay peninsula (132 thousand square kilometers) and East

Malaysia (some 200 thousand square kilometers) on the island of Borneo. Borneo contains the provinces of Sabah and Sarawak, which joined the Malay federation in 1963.

Malaysia's population of 25 million has doubled over the past 30 years. It consists of a dominant Malay population (the Bumiputras account for 65 percent, and who dominate the civil service and government institutions) with ethnic Chinese at 26 percent (and who, as in Singapore are dominant in local and international business), followed by ethnic Indians at 8 percent, and who are largely dominant in large scale agricultural plantations. Malaysia has fostered rapid population growth as a means to counterbalance some of its larger neighbors, particularly in reference to Vietnam, which has a population of some 84 million. And of course, there always is the presence of China, with its 1.3 billion population. Together with South Korea and Japan, these countries have become the dominant partners in the regional ASEAN group, as can be seen in Table 3 below.

TABLE 2: BASIC PROFILE OF THE ASEAN +3 GROUP

	Population, in millions	GNP in \$US billions	Per Capita GNP, in \$U.S.
ASEAN	530	575	1,100
Japan	135	4,509	34,715
China	1,285	1,260	904
South Korea	50	500	10,000
ASEAN +3	2,000	6,400	3,200

Source: Data from *Etat du Monde 2005*, as noted in Table 1

Malaysia also has a large immigrant population consisting of some 2 million Indonesians as of 2003, and which provide the economy with a skilled labor force, especially in construction. This labor enables Malaysia to reduce its costs, and thus helps maintain a competitive international position in the current global environment. We also note that, as in Vietnam, Malaysia uses the latin alphabet for its main language, Hokkien. Hokkien is a dialect spoken by the Malay Chinese, which, along with Indian Tamil and English, account for the overwhelming number of speakers in the country.

Political dynamics in Malaysia are driven by a careful mix of ethnic participation. The dominant political party, UMNO, relies on support from MCA, the powerful Chinese political party, as well as from MIC, the Malaysian Indian party. In recent years, the Malaysia Islamic Party, or PAS, is exerting an increasing influence in elections and is becoming yet another force in the political landscape.

Islam is the official religion in Malaysia, accounting for some 55 percent of the population, even though government statutes call for protection of other religious groups. Government policy is built on the notion of respecting differing local cultures, and careful attention is given to assuring participation in the political process by these groups. Although Islam is the state religion, Malaysian authorities have gone so far as to place other religions on an equal footing, particularly in terms of recognition of various religious holidays. For this reason, Malaysia has more religious holidays on its calendar than almost any other country in the world<sup>xv</sup>.

Malaysia has faced a difficult balancing act in terms of its religious and political institutions. For more than twenty years, President Mohammed Mahathir established a record of sound and vigorous economic growth<sup>xvi</sup>. Since his retirement in 2004, his successor Abdullah Badawi, has faced the growing challenge of maintaining Malaysia's competitive position in the face of more dynamic growth from both China and India. While Mahathir came across as strident and anti-western during the stormy financial crisis of the late 1990s, Badawi (who completed his studies at the Islamic University of Penang) has adopted a more conciliatory tone<sup>xvii</sup>.

In this environment, foreign firms have adopted a policy of appeasement, and have thus made the succession of Badawi relatively smooth. At this point, foreign multinationals have made important investments in the country and bringing high tech jobs along with them<sup>xviii</sup>. Yet Malaysia has some of the same problems as Singapore. Both operate in an extremely competitive market with their less well off neighbors of China, India, and Vietnam, and yet must continue to attract foreign investment lest their growth slow down. So widespread is the recognition of this phenomenon that Malaysia has recently begun to allow wholly owned foreign subsidiaries to set

up operations rather than the historical practice of requiring a 30 percent Malaysian participation rate.

#### **Indonesia: Recurring Crises of Independence**

Indonesia is the largest Moslem state in the world and the most populous in southeast Asia. With a population of 220 million living among 14,000 islands that make up the Indonesian archipelago, of whom 180 million are Moslem. In contrast to other ASEAN Moslem majority states in the region, Indonesia has had greater ethnic tensions with which to contend, some of which have resulted in breakaway secessionist movements. In common with Malaysia and Singapore, Indonesians have a great deal of ethnic and linguistic diversity. Bahasa is the official language, whereas English serves as the language of commerce much as it does in other neighboring countries.

Indonesia is a presidential republic. Current president Susilo Bambang Yudhoyono was elected in September 2004, following the three year term of Megawati Sukarnoputri, Indonesia's first woman president. Megawati was elected following the downfall of the Suharto dictatorship whose interim ruler Abdurrahman Wahid (Gusdur) functioned during the transition to a presidential system.

Indonesia's sometimes turbulent political fortunes have turned not just on its oil wealth, but also on a lack of cohesion among its many ethnic groups<sup>xix</sup>. While Megawati had worked hard to reduce many of these conflicts in the aftermath of the East Timor secession, other revolts continued to fester and which caused foreign investors to look at the country as in a high risk category<sup>xx</sup>. And the lack of foreign investment has meant that even with oil, the country has not been able to achieve the kind of economic growth as have some of its neighbors.

Political turmoil has led some to call for the installation of Shari'a law as the official code of administration. However, even Indonesia's Moslem population, long known for a more tolerant brand of practice, did not provide enough support for this proposition, which failed in the 2004 elections. Some of this reticence reflected the careful diplomatic efforts of Megawati. She negotiated in September 2002 a peaceful commitment by the Islamic fundamentalist group Laskar Jihad, to stop fighting and to cease its operations. She also negotiated in December 2002 a cease fire with the Banda Aceh separatist rebels who had been fighting for independence on the northwest coast of Sumatra for the past several years<sup>xxi</sup>. Yet this latter accord began to unravel in 2003, and a fragile truce came about in response to the tsunami destruction of December 2004.

Current president Susilo Bambang Yudhoyono has sought to achieve political stability through a policy of stimulating economic reform while at the same time upholding an independent position in Indonesian foreign affairs. Thus, Indonesia opposed the United States on the war in Iraq, while at the same time looking for international assistance in strengthening the national army to preserve political stability. What has made this strategy particularly difficult to pursue is that Indonesia has not yet recovered fully from the Asian financial crisis that accompanied the devaluation of the Thai bhat in 1997, and which in 1998, produced a 13.5 percent contraction in Indonesia's GDP. While recovery is taking place at a current rate of 4 percent (as of 2003), it is below that of its neighbors and below what Indonesia was able to enjoy during the earlier 1990s. Key to the recovery is a healthy export surplus built on oil and natural gas, electronic components, wood and derivatives, along with various minerals. The current surplus stands at \$U.S. 29 billion (with exports at \$62 billion and imports at \$33 billion), out of a today GDP of \$220 billion. What remains is whether the destabilizing effects of the December 2004 tsunami will derail the careful recovery that had slowly begun to expand, for which such sectors as tourism in places like Bali have been hit hard.

#### **India: The Challenge of Castes**

Despite economic liberalization and an increasingly robust economy, India still has the achilles heel of an inherited caste system<sup>xxii</sup>. India's caste system has had a combination of effects on the economic and social order. Among them, we cite:

- Professional specialization and hereditary artisanry
- A rise in endogamous relations among members of the same caste
- A reinforcement of hierarchy and social order

Indian castes actually are more numerous than first appears. Traditionally, India has evolved with five distinct caste structures, each of which has its own hierarchy, or « varna », and often sub-divided into subgroups or « jatis »:

- At the top are the Brahmins, who originally constituted a priestly class. Brahmins served at marriage and

- funeral rites. They typically are vegetarian as eating any « living » thing is thought to be impure ;
- Next are the Kshatriya, who belong to a warrior caste somewhat less pure. Apart from their warrior tradition, other functions seem less well defined ;
  - Third are the Vaisya, who are production workers who have evolved essentially into a merchant class. Many follow vegetarian tradition, especially in West India ;
  - Fourth are the Sudra, who constitute an outcast class and represent the great majority of India's population. They are overwhelmingly peasants and small artisans.
  - Finally, there are the untouchables, those who fall even below the Sudra class.

Principles based on hereditary specialization, endogamous family relations and social hierarchy create some rigid distinctions that inhibit the full expression of skills and talents in Indian society. Birth right at one level translates into birth obligation at another, with little social mobility if at all.

Endogamy leads to monopolization in family relations. A 1993-1994 industrial survey noted that 90 percent of all private firms are controlled by families belonging to specific social castes<sup>xxiii</sup>. More specifically, the survey found that these families controlled 70 of the 100 largest Indian firms. A subsequent survey undertaken in 1997 showed that among the top 50 Indian family firms, 15 are controlled by members of the Brahmin class<sup>xxiv</sup>. Thus a single caste can, by virtue of a few socially connected families, dominate an important part of the national economy. By setting arbitrary constraints, the choice of markets, goods, and factors within caste-shaped firms leads often to an inefficient allocation of resources, and in which productivity gains are either lost or under-realized, thereby reducing the economy's rate of growth for a given rate of saving.

Over time, Brahmin dominance in the social order served at least two functions. First, it reinforced a set of elites who would provide a structure for social protection. And second, Brahmins would serve as instruments for interpreting and expanding Hindu thinking and beliefs. Within this tradition, being born into a particular caste is part of a process of purification from one's previous life. Passing to the Brahmin caste from successive previous lives conforms to the process of birth and renewal toward spiritual purification.

Against this rigid tradition, we should also take stock of the influence of Gandhi. Himself born a Brahmin, Gandhi spent the greater part of his life in struggles for social justice. These struggles involved not just non-violent resistance to British colonial rule, but also ongoing efforts to abolish India's caste system toward a broader ethos that focused on the less advantaged members of society. Today, we see some evidence of the relaxing of caste strictures, but it often carries a price. When a marriage involves a daughter from a lower caste, it typically is the case that the lower caste family must provide a large dowry to the family of the groom. The children of the family are considered to become the property of the family of the groom. In the event that no children are issued, the husband may renounce the marriage with no obligation to return the dowry in part or in whole. In some cases, there have been reports of « honor » killings by Brahmin individuals for a failure of a spouse's family to pay a dowry, or because the wife no longer wished to be married to her partner.

Educated women in India, particularly those that have succeeded in establishing professional careers, have taken the lead in criticizing the caste system and in promoting the extension of human and civil rights. Despite change in this area, India still functions with a social structure that on the one hand continues caste-based practices and tradition, even though civil law and India's constitution expressly forbid the use of social privilege as a basis for social relations. Thus, while India since the time of Gandhi has outlawed the caste system, in reality, it continues to operate in many sectors of society, and often to the detriment of India's enormous economic and social potential.

#### **Japan: Stress and Deception**

Of all economies in East Asia, Japan has not only been a pioneer in the adaptation of western technology, but also one of the most successful. What makes Japan somewhat exceptional is that this has taken place in a context in which great emphasis has been placed on social conformity, a reluctance to emphasize individual distinctions, and in which values of loyalty and devotion are paramount. As in the ancestral model of China, Japan has built a social system around a devotion to hierarchy and authority. What distinguishes Japan's approach to these Confucian values is its more authoritarian form. Much of this derives from the Japanese tradition of its samurai warrior class, who serve as first protectors of the divine authority of the Emperor. Bushido, the Japanese code of honor, places central emphasis on ritual adherence to authority, including the famous « hari kiri » suicide ritual that during the

Second World War, took the form of the famous suicide « kamikaze » planes that tried to destroy allied ships fighting imperial Japan.

The education system of Japan seeks to inculcate children with an inbuilt sense of deference to authority and in support of social harmony. Before the Second World war, the Emperor, or « Tenno », was considered the earthly symbol of purity, and whose Prime Minister functioned as the first « Shogun », or administrator of the Emperor's divine will. Decisions by the Emperor as administered by the Shogun would reinforce the virtues of honesty, patience, spiritual unity among all citizens upon pain of death. In this social order, each individual knew his or her place and how to translate that role into the service of the nation.

Within Japan's industrial system, each worker was called upon to display acts of loyalty, with decisions based on collective consensus all in support of a hierarchical social structure. Labor unions did not exist to bargain for better working conditions but to improve the tasks of production, and confrontation was to be avoided. Given this rigid conception of social order, when leaders of firms failed to protect the interests of workers, or when corruption took place at the firm or even political level, reactions could at time become violent.

Western firms seeking to do business often have confronted a veil of ignorance. This has not been due to language alone. It reflects a protective nationalist sentiment in Japan, and a general unwillingness to cede significant control over economic decisions to others than Japanese themselves. Thus, while Japan has become a more open economy since the Second World war, this opening, like the opening by Commodore Perry in 1853, has been accompanied by a will to acquire modern technology from the West and to then use it in the crafting of a mercantilist economic policy. Not surprisingly, in Japan today, as is the case of China and Korea, we see an absorption of Western products and technologies, but also with the view that trading surpluses are considered to be a benchmark of success rather than an imbalance to be redressed.

## Conclusion

In this review, we have seen that Western-centered economic models that have been used to explain economic growth and development have fallen short when it comes to non-Western economies. The principal reason for this gap is that the evolution of economics as a social science has been predicated on the application of scientific principles, principles that if they are to meet the standard of science, must have universal rather than partial validity.

In today's process of globalization, it is essential to take geographic and cultural differences into consideration if one is to understand why some countries succeed and others do not. Analyses of comparative costs in terms of literacy, health standards, the urban environment, or a ladder of professional success will inevitably differ beyond purchasing power parity estimates in various countries, be they in Burkina Faso, Benin, or Vietnam or Laos. Yet training in economics throughout the world continues to function largely on Western-centered theories and models. And here we are barely a generation from the great waves of political independence in which success is measured by formal mathematical models in which statistical tests are the norm but in which important qualitative dimensions reflective of cultural and political differences are largely unobserved, much as in the case of the economic weight of the informal sector in many developing economies. In our view, this unobserved behavior is as critical as the « residual » in the well known growth studies of the 1960s and 1970s in which changes in factor inputs explained only a portion of differences in rates of growth among major developed economies.

If there are challenges for strengthening economic ties between developed and developing economies, they are due in part to the failure to adopt a more comprehensive view of the determinants of economic growth and behavior along the lines we have elaborated on here. What traditional Western-centered mathematical economic models tend to reflect is an ignorance of local economic differences that may not be directly observable. When confronted with inconsistent results, these models call into question the universal pretensions of economics as a social science.

- Overcoming the theoretical and empirical gap between Western mathematical models and the socio-economic realities in globalizing economies will require taking explicit consideration of a number of phenomena. We emphasize the following :
- At the cultural level, determining how ideology, philosophy, modes of thinking, religion, beliefs, customs,

- and behavior differ across markets and regions ;
- At the geographic level, taking into consideration both population dynamics and natural resources into what may be treated as economic geography and its role in explaining economic phenomena ;
- At the institutional level, analyzing how economic and financial flows are organized in both the formal and informal sectors, including an examination of the determinants of an economy's infrastructure both physical and human (i.e., schooling and health).

When any one of these dimensions of development fails to function, it usually signals a form of economic and financial, not to mention political, crisis. Since globalization depends in part on managing the risks of crises, a clear understanding of cultural, geographic, and institutional factors can serve as an important building block to its success<sup>xxv</sup>. Given differences in the factors across economies and regions through time, individual countries can be quite rational in adopting their own national strategies<sup>xxvi</sup>.

From an expanded research perspective, it follows that educational systems across countries should embrace a study of their unique characteristics and then to engage in regional exchanges on which greater mutual understanding of economic and social ties may be pursued<sup>xxvii</sup>. It is also through such bottom up acquisition of knowledge that emergency policies in the face of global ones may be better crafted and in which their frequency may become less severe than the ones that we have seen in recent years.

## **Annex**

### **The Impact of Philosophy and Religion on Asian Culture**

The transformation of South East Asia from a model based on Marxist autarky to an export-driven market environment has produced profound consequences for the region. This transformation is all the more remarkable given historical differences in fundamental national values, behavior, and popular aspirations. Whether one looks at India, China, South Korea, Japan, or Vietnam, western-centered models fall short in providing a vigorous explanation of what has been taking place. We take in this position in consideration of several examples, notably :

- Marx never addressed less developed countries such as China or the Sudan in his writings ;
- Keynes never took into account how his theory of macroeconomic stabilization might differ in terms other than those of an advanced industrialized economy such as Great Britain ;
- Rarely have contemporary economic theorists chosen to go beyond the manipulation of traditional econometric models to take into consideration the importance of such phenomena as the informal sector in African and Asian economies (it represents approximately 40 percent of official GDP in Vietnam, for example), or informal credit and savings institutions such as the « tontines » in Sub-Saharan Africa whose functioning is well adapted to the local environment, or even how differences in local customs or the absence of infrastructure nevertheless does not prevent the emergence of dynamic economic relations.
- There also is an intercultural communications bias adopted by the great majority of economists, particularly as it pertains to their counterparts in the humanities and other social sciences. Often expressed in dismissive terms, economists often dismiss the methodology used by other social scientists as incompatible with the norms of scientific investigation, and in which they often cite that only economics has risen to the scientific standard of a Nobel Prize. In the never ending quest to establish an equivalence between economics and the physical sciences, economists thus overlook critical cultural and human aspects that are so often at the base of the very economic decisions they choose to study.

If the emergence of contemporary China has been somewhat of a mystery, it is in part because it has not a phenomenon in which one can use the typical reasoning of contemporary economic science. In our view, the key to understanding China's economic transformation must include an understanding of the practical philosophy of its leadership who at the same time can proclaim their communist credentials in a periodic critique of capitalism while at the same time fostering some of the most capitalistic forms of behavior that one could imagine. This seeming paradox reflects nothing less than the ongoing influence of Asian religious and philosophic values and customs, that reflect their Confucian, Buddhist, Hindu, Taoist<sup>xxviii</sup>, Shinto<sup>xxix</sup>, and Islamic heritage. In this sense, many economists are not likely to discover the underlying dynamic that shapes the emergence of Asian economies in the twenty-first

century. For this reason, we now look at how these influences have indeed created the kind of dynamism to which we are now witness.

### **Confucianism**

The great majority of Asian countries have developed institutions that are strongly influenced by Chinese cultural traditions that combine both rigor and superstition. Given that China's influence extends over a period of three thousand years, neighboring countries have had few choices as to how they would acknowledge the cultural role of China. While these countries have also engaged in periodic wars of conquest, they have nevertheless shared a common bond of essentially Confucian values. Established originally by Kong Fu Tseu<sup>xxx</sup> in the sixth century BPE, Confucianism is based on a system of philosophic principles and moral values for the ideal organization of human society, and all in the pursuit of social harmony.

Superstition plays a role in the Confucian value system. It is based on an integration of ancient notions of Chinese cosmology that provide a justification for political and social organization. Confucius emphasized an unflinching respect for social hierarchy. At the top of the social pyramid, the emperor represents the link between earth and the supernatural. He is thus the central figure who by his divine authority, mediates social harmony. Everything is directed around the emperor and everyone must obey his directives. In symbolic fashion, the emperor lives in the center of the palace, which is in the center of the capital, which is in the center of China, and in which China is the center of the universe. It is from this conception that China has derived the expression of the country as the center of great middle kingdom.

Surrounding the emperor is a large retinue of educated individuals who serve as civil servants devoted to establish the links between the emperor and the people. These bureaucrats thus carry out orders of the emperor and express the divine will of the emperor. In turn, and in a strictly hierarchical fashion, farmers, artisans, and merchants each constitute classes that must render homage and loyalty to the civil servants of the emperor.

This social arrangement operates with a view of promoting basic social harmony with the emperor at the center. Social harmony is the supreme goal of philosophy and Confucian values. In China, moral authority of each individual is sufficient to guarantee social harmony among all subjects within the empire.

When Japan adopted Confucian values, they were reinforced and became even more authoritarian. Armed forces such as the samurai warriors would provide proof of imperial strength in order to punish any transgression from a hierarchical model in which the emperor reigned supreme. The Samurai thus functioned in a more militaristic fashion as the counterparts to their more bureaucratic Chinese civil servants. As some have suggested, the emphasis on military strength to reinforce social hierarchy has produced both external aggression, as in the occupation of Korea in 1910, and in the expansionism of Japan during the Second World War, but also in terms of socially destructive behavior in contemporary times. The popularity of religious sects and suicides in Japan is more pronounced than in most neighboring countries.

The Asian notion of a harmonious organization of an obedient society expressing devotion to the emperor, the country, the business executive, the head of family, and one's ancestors explains much of the contradiction between a tradition of extreme hospitality, smiles, and suppleness side by side with a strong sense of closed negotiations in commercial relations, be that among partners or with one's competitors.

The sense of social closure manifests itself first and foremost among Asians themselves. A Chinese worker may work up to 14 hours a day, often including Saturdays, for very low salaries, and with practically no social service provision for those who are weak, old, or sick. The same sense of closure also shows up in terms of international relations with Western groups. This often produces misunderstanding, even to the point of resentment in such alliances as joint ventures in China and Vietnam. As a result of the closed sense of communication, foreign investors often find themselves drawn more often to projects in which they have complete control whenever law permits, but in which greater mutual understanding becomes a casualty.

Taken together, Confucian values and attitudes have a profound influence on social behavior in many Asian countries. It shows in terms of the organization of individual and social life, as well as in terms of international trade and trade negotiations.

### **Buddhism**

Buddhism<sup>xxxi</sup> constitutes a parallel development with Confucianism in Asia. From its origins in India, Buddhism spread rapidly across many countries in Asia, evolving in various ways as to how best understand both the concepts

and their applications. Although Buddhism gradually lost influence in its native India after the 12th century, it has continued to thrive in other parts of the world.

Buddhism embodies a means of spiritual reflection, a personal and social philosophy which at the same time is « agnostic » in that it has neither a god nor a body of saints. As a partial offshoot of Hinduism, Buddhism began along the Ganges in the sixth century BPE and evolved into a philosophy to understand human suffering, and from which one can find the path for its elimination by following the highest path. This awakening, from which the term « buddha » comes from the ancient Sanscrit, is based on the pursuit of knowledge and in the support of other members of society.

A single life is insufficient to achieve the golden awakening. Several are necessary. Through meditation and the gradual accumulation of wisdom, one moves ever closer to the divine path, with each cycle of rebirth and reincarnation. This philosophy corresponds simultaneously to the needs and aspirations of many Asians. It provides a timely spiritual response to the sufferings of the body and the soul.

Throughout one's life, each individual, whether rich or poor, passes from adolescence to maturity, to old age, sickness, and death<sup>xxxii</sup>. Recognizing this eternal cycle of renewal, it is incumbent on each individual to adapt a lifestyle that is built on the quest for universal harmony as expressed in the teachings of Buddha<sup>xxxiii</sup>. The emphasis on social harmony enables one to understand all walks of life, from those with means to the least advantaged.

The appeal of Buddhism lies in its various ways of fostering belief. The degree of austerity differs significantly among practitioners. To achieve the highest level of understanding, or nirvana, several instruments are possible. There is the Buddhism as a grand instrument, a small instrument, a golden instrument, a Zen instrument, among others<sup>xxxiv</sup>. Because there is no single way to nirvana, Buddhism has produced some offshoots that are built around cultish practices, as in the Soka Gakkai, Sukyo Mahikari, Sahaja Yoga, and others, to which we add that some also have taken on violent forms that are antithetical to most teachings of Buddhism. The sarin gas attack on the Tokyo subway was led by a cult, for example.

In terms of economic content, one dimension common to most forms of Buddhism is a renunciation of worldly possessions and consumption as they constitute obstacles to the path to nirvana along the continual process of destruction and renewal. In this sense, Buddhism is antithetical to most western notions of economic dynamics that revolve on savings and investment, productivity and technical change, and in which the assumption is the choice of scarce resources to satisfy unlimited wants.

It also is instructive to note that Buddhism is an alternative to the Eurocentric notion that, as Max Weber put it in 1904, the protestant ethic is the religious key to the industrial success of the western world. By placing emphasis on a continuous process of death and rebirth toward the state of nirvana, and by an active dedication to respecting the social hierarchy provides Asian economies an equally valid way to generate material wealth. The corollary respect given to one's elders and ancestors translates into devotion to the leader of a firm, as well as the leader of the country, all acting in concert in pursuit of a common goal of improvement. Indeed, it is this system of hierarchy that explains not just the militaristic impulse in some Asian societies, but also to treating the firm in near theological terms. Images of individuals placing jewels and other gifts to the Korean government to help it overcome a financial crisis such as took place in 1997, or the periodic suicide of corporate officials in Japanese firms when scandal or fraud was declared is testimony to the sense of subordination of the individual to the higher goals of society.

#### **Islam in Asia**

Islam has produced major political and cultural consequences not just in the philosophy and religious practice among Moslems, but also on intellectual, scientific, artistic, economic, and social life in communities where it has become the dominant religion as well as in countries where it is in the minority. Historically, Islam has functioned as a cultural intermediary that covers the pagan, agnostic, and other ancient religions, and whose cultures functioned under various dynasties such as the Pharaohs in Egypt, the Etruscans, Greeks, Romans, and the Middle Age up to and through the European renaissance.

In Islamic society, shari'a law has long served as the instrument for civil and criminal codes of conduct. Shari'a law derives from the Koran, which is considered as the earthly manifestation of Allah, the supreme being<sup>xxxv</sup>. Since the beginning of the Hegira, or exile of Mohammed the Prophet from Mecca to Medina in 622, Islam has evolved as a source of struggles for power and extension over large geographic areas in an effort to bring other

people to its rule. Following the death of Mohammed in 632, a civil war broke out between Ali, the nephew of Mohammed and the Sunni Umayyids over the succession of power. The Umayyid victory resulted in the establishment of the first caliphate dynasty, a struggle which also resulted in the assassination of Hussein in Karbala in 680. The martyrdom of Hussein became the rallying cry for the Shi'ites, who became the principal opposition to the then dominant Sunni Umayyid caliphate. With this passage, the Sunni Arabs then spread westward, conquering Carthage in 698, and proceeding westward to cross into Spain and then into France.

While Sunni conquests were aimed at conversion of all those in their path, some such as the Berbers of North Africa offered periodic resistance. In the Aurès region of present-day Algeria, for example, Berber populations maintained their historic and cultural identity, for whom the Kabyl have become well known<sup>xxxvi</sup>. Yet despite such resistance, some Berbers did use Islam to engage in a jihad against populations further south, notably the Almoravid invasions into the ancient kingdom of Ghana. But none of these changes produced a monolithic empire, as the Seljuk Turkish invasion of Baghdad in 1055 attests. The Seljuk invasion resulted in the domination and subsequent exile of the Umayyids by the Abbasids, after whom Ottoman power then went on to rule as far as Algeria for the next several centuries.

#### **Islam in China**

Islam also spread farther east into Central Asia, and through a combination of military pressure and growing trade, extended its reach into western China. Yet it was mostly the Mongols who converted to Islam following the rise of Genghis Khan, followed by Tamerlane in the 14th century, and Bäber in the sixteenth, and Mongol power represented the greatest threat to China's imperial rule.

Immigration of Arabs into the western provinces of China had already begun by the eighth century, in large part through the growing trade in goods and for which the famous Silk road from Sian to the Middle East would become famous. Commercial success among the Mongols posed a rising threat to the Yen dynasty in China, especially with the imperial conquests begun under Genghis Khan. Mongol successes led to Islamic domination in the larger cities in western China, particularly in the Gansu and Yunan regions. Chinese perceptions of these converted peoples took the form of calling them the « hui-huis », and for whom their Islamic religion was known as « Qing zhen jiao », or the true and pure faith.

It is well known that Confucianism is based on the search for wisdom, harmony, and tolerance. Chinese thus had a certain level of hospitality toward these new believers and in the sixteenth century, the Chinese philosopher Li Zhi made efforts to articulate an Islamic-Confucian synthesis of beliefs. Given this context, Moslems in China have become well integrated within the local population. It was only in the nineteenth century that tensions began to break out, notably the uprising in Taiping that resulted in 30 million fatalities over a period of twenty years, and which in turn produced corollary uprisings in the south-west (1855-1873) and the north-west (1862-1877) between Confucian and Moslem Chinese.

Tensions between Moslem and Confucian Chinese during this period coincided with a major debate over the modernization of Islam. It was becoming increasingly clear that the surrounding world, notably the West, had achieved rapid material progress that created growing pressure to address the reciprocal relations between religion and the state. Chinese authorities expressed growing doubts over the role of Moslems in society, in particular the extent to which they viewed themselves as Chinese or as members of a non-Chinese community. Not surprisingly, in the turbulent years of the Cultural Revolution in the 1960s, revolutionary groups went about harrassing Moslems with the same intensity as they did other potential enemies of the state. When the Cultural Revolution ended a few years later, Chinese authorities did seek to make amends by inaugurating with great pomp a new grand mosque in Beijing in 1970. Since then, Chinese authorities have displayed a relatively tolerant stance toward Moslems, who today constitute some 13 million in the country, and thus an important national minority.

#### **Islam in Central Asia**

As Islam confronted pressures regarding modernization in China, so too was the experience in Central Asia. Many in Central Asia urged an evolution in Islam through modern schooling, and through social reforms that extended down to daily political life. Moslems in the region thus asked the same question as their Chinese counterparts, namely, « What can we learn from the West without losing our sense of identity<sup>xxxvii</sup> ? » Part of this self-examination took place as the once strong administration of the Ottoman Turks foundered on a frozen system in which little innovation took place<sup>xxxviii</sup>.

One central question that arose was the central issue of the secularization of Moslem states in which the role of the State began to diverge from Islamic religious authority. This process reflected several divergent tendencies, including the somewhat paradoxical one in which Shar'ia law was applied increasingly in efforts to provide protection for minority rights among the Christian and Jewish populations within the Ottoman empire<sup>xxxix</sup>. And as secularization proceeded, little attention was given to the protection of minority rights, often placing them in an ambiguous and uncomfortable role. Risks of genocide, of ethnic cleansing became more acceptable in Moslem states with the ironic decline of Shar'ia law and an ambiguous role of secular law.

In India, the Moghul empire began to fall apart over a series of generations. What created a pause in this process was the Sepoy rebellion of 1757, where local soldiers serving in the British colonial army resented military practices they viewed as inimical to their beliefs. In particular, what sparked the rebellion was a refusal to obey the British order to use their teeth to reload their bullet cartridges that had been greased with pork fat in their manufacture. While the Sepoy rebellion was put down by British forces, the rebellion also produced conflict between the Moslem Indians who wanted to restore the Moghul empire to its former Islamic glory from its decline after the death of Moghul Aurangzeb in 1707, and the Maharasha empire that consisted of Indian Hindu believers. The rebellion of 1757 set into motion a continuing chain of divisions between Moslems and Hindus, culminating with the separate states of India and Pakistan at the time of independence from Britain in 1947.

While religious divisions deepened within India, other countries took a different path in the waning days of the Ottoman empire. Interestingly, Turkey emerged from its Ottoman roots under the nationalist leaders Mustapha Kemal Ataturk, who not only abolished the caliphate, but used a firm hand to make Islam clearly subordinate to the newly emerging republic<sup>xl</sup>. Ataturk reinforced this separation by adopting a Western style civil code, and placed major emphasis on public schooling, the banning of headscarves, and other symbols of traditional Islam, thereby creating a legacy that has lasted since then. Today Turkey is viewed as one of the more modern states in the Moslem Middle East, not just for these reforms, but for others that created higher rates of schooling, guarantees for religious minorities, as well as providing for significant roles for women, including more recently, the election of Tansu Ciller, Turkey's first woman Prime Minister from 1993 to 1996.

In Persia, the Kadjar<sup>xli</sup> kingdom stood at some 10 million inhabitants at the beginning of the 20th century, of whom only some six percent lived in rural communities. However, the country remained poor during the first half of the twentieth century until oil was discovered in the 1930s<sup>xlii</sup>. Since then, a newly renamed Iran became progressively more important as oil resources were developed, contributing some 70 percent of government budget revenues, but not without ongoing political turmoil. Although Iran under the Shah (1953-1978) rode the oil price rises of the 1970s, it also led to political instability as import prices rose as well, and which culminated with the fall of the Shah and the creation of a revolutionary Islamic government under Ayatollah Ruhollah Khomeini in 1979. While Ayatollah Khomeini orchestrated the US embassy hostage crisis as a unifying means to solidify political power, his successors have presided over an ambiguous relationship in which an elected parliament, or majlis, proposes legislation but all final decisions reside with an unelected group of ayatollahs who have done much to resist any restraints on the dominant role of Islam in what was under the Shah a relatively moderate regime. Not surprisingly, foreign investors look askance at Iran as a high risk country and capital inflows have been meager for some time. And while Iran today has taken cautious steps to engage in economic and political reform, the country still faces an ambiguous future, and one particularly clouded by ongoing efforts to acquire nuclear weapons technology.

In Saudi Arabia, another set of tensions have also been put into motion. By far the country with the greatest proven oil reserves, it has adopted a political and religious arrangement in which the ruling house of Saud that came to power in the 1930s enjoy a level of political legitimacy in part because of their declared support for fundamentalist Wahabi, who enforce and propagate a strict version of Islam within the kingdom as well as promote its application abroad. Unlike Turkey, for example, Saudi Arabia, which is home to two of the holiest sites in Islam – Mecca and Medina – affirms the political legitimacy of the kingdom with its strict application of Shar'ia law.

Oil affords the Saudis the ability to pursue modernization of the country's infrastructure, including university education for women. Yet the contradictions of the modernization efforts show up with a strict separation of women from men, and other strictures such as a prohibition on women driving automobiles, as well as a strict gender separation at social functions.

In Tunisia, much progress has taken place during the time of President Habib Bourguiba, who was leader of the Neo-Destour party at the time of independence in 1957. Tunisia's constitution guarantees gender equality, forbids polygamy, and permits contraception and controlled abortion. Although Tunisia has no known petroleum resources, it has achieved relative economic success through modernization in its schools, and through setting some boundaries between religion and the state.

Finally, we note countries such as Indonesia in the far East, which have traditionally been known for practicing a more moderate and tolerant branch of Islam. This has been due in part to the spread of Islam in the archipelago by largely commercial contacts rather than wars of conquest and resistance. It also has made notable steps toward democratization in the political system, particularly in the period following the rules of Sukarno and Suharto from the 1960s to the early 2001 period<sup>xliii</sup>.

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## **End Notes**

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<sup>i</sup> je ne parlerai pas de l'Amérique Latine dans cette présente communication.

<sup>ii</sup> Guy SCHULDERS, « La Chine du Nouveau Départ », Editions L'Harmattan, Paris 1987 et Guy SCHULDERS, « Turbulences Chinoises », Editions L'Harmattan, Paris 1989.

<sup>iii</sup> Quand nous avons publié « La Chine du Nouveau Départ » en 1987, puis « Turbulences Chinoises » en 1989, l'économie chinoise n'intéressait pratiquement personne en France ; seules les considérations culturelles étaient alors évoquées. Maintenant, après que la sortie presque simultanée de deux films à succès ait rappelé à nombre d'Européens les charmes romantiques et doux de l'ex-Indochine, les candidats à l'investissement se sont précipités pour se déployer au Vietnam.

<sup>iv</sup> Il faut éviter, cependant, l'erreur qui consiste à considérer que les matières premières se trouvent dans les pays du Sud alors que les produits industriels sont exclusivement fabriqués dans les pays du nord. Le cas des économies asiatiques contredit cette présentation dualiste par trop caricaturale. Actuellement, l'Amérique du Nord, en particulier le Canada et les USA, figurent parmi les premiers producteurs d'un grand nombre de matières premières.

<sup>v</sup> Guy SCHULDERS, « La Dynamique des Rapports de Forces », Editions L'Harmattan, Paris 1994.

<sup>vi</sup> Ludovic FRANCOIS, « Business sous influence : Qui manipule qui ? », Editions d'Organisation, Paris 2004.

<sup>vii</sup> Bien qu'apparemment pacifique, ce pays usera-t-il de sa puissance économique spectaculaire pour imposer des solutions unilatérales aux difficiles problèmes de Taiwan, des Parcelles, des Spratleys, etc.

<sup>viii</sup> ASEAN (Association des Nations du Sud-Est Asiatique), créée en 1967 entre Malaisie, Singapour, Thaïlande, Philippines, Indonésie, rejoints par le Brunei en 1984, puis par le Vietnam en 1995, le Laos, le Cambodge et le Myanmar (Birmanie) en 1997. L'ASEAN avait à l'origine pour rôle de promouvoir la coopération économique et sociale dans la région du Sud-Est Asiatique ; en réalité le rôle politique de coopération régionale et d'atténuation ou d'empêchement des conflits s'est révélé fondamental.

<sup>ix</sup> Au niveau bilatéral, la Chine et le Vietnam s'opposent de manière périodique et parfois très tendue au sein de ce même conflit portant sur la revendication de territorialité de ces archipels.

<sup>x</sup> Karl Marx avait sur ce point adopté la « *théorie de l'aliénation* » de Ludwig Feuerbach, qui avait lui-même abandonné l'idéalisme hégélien pour prôner l'analyse matérialiste de l'Histoire.

<sup>xi</sup> Ultime étape de la perfection chez les Bouddhistes, caractérisée par la maîtrise des désirs, de la douleur, par la possession de la connaissance et de la vérité.

<sup>xii</sup> Nous n'aborderons pas les conflits plus politiques que culturels qui se sont manifestés aux Philippines au cours de ces dernières années. On se reportera à l'article de Carmen A. Abubakar, (Institut des Etudes Islamiques de l'Université de Manille) « L'interminable conflit de Mindanao », Le monde diplomatique, septembre 2003.

<sup>xiii</sup> SRAS : syndrome respiratoire aigu sévère ; les mesures de précaution et surtout les incertitudes des scientifiques à l'égard de cette pandémie, mal connue et non maîtrisée, ont conduit, parfois jusqu'à six mois en 2003, au blocage des transports et des échanges de nombre de pays asiatiques sur le plan régional comme mondial. La pandémie a fait officiellement 32 morts sur 200 malades à Singapour au printemps 2003.

<sup>xiv</sup> Voir note n°6

<sup>xv</sup> La politesse asiatique associe, bien entendu à ces fêtes, l'envoi de cartes postales. Lorsque les fêtes se chevauchent, comme se fut le cas pour certaines en 2002 et 2003, les imprimeurs ont publié des cartes biconfessionnelles sur lesquelles pouvaient figurer à la fois "merry christmas" et "happy deepavali". On trouve même à Kuala Lumpur des cartes où toutes les fêtes confessionnelles figurent en même temps : « merry christmas », « happy chinese new year », « happy deepavali » et « selamat hari raya » !

<sup>xvi</sup> PIB actuel : 105 milliards \$, dont 50% provenant des services et 41% de l'industrie ; revenu moyen /habitant : 3850 \$ ; taux de croissance: 5,2% ; exportations : environ 100 milliards \$ ; Importations : 85 mds \$ (données pour 2003).

<sup>xvii</sup> Etat de la côte nord-ouest de la Malaisie ; abrite la célèbre mosquée de Jalan Kapitan Keling.

<sup>xviii</sup> Honda, BP, Rolls Royce, Nokia, Ericsson, BMW, etc

<sup>xix</sup> Guy SCHULDERS & Serge BÉSANGER, « Les relations internationales Asie-Pacifique », Editions Alban, 1998.

<sup>xx</sup> Massacres de 1999 au Timor oriental, ancienne colonie portugaise à majorité catholique ; explosion d'une bombe sur l'île de Bali en octobre 2002, tuant 180 personnes, majoritairement d'origine étrangère ; attentat à Jakarta début août 2003 (5 morts), etc.

<sup>xxi</sup> Aceh, (située dans la partie nord de Sumatra) est l'une des quatre provinces les plus riches de l'archipel indonésien, avec les îles Riau, Kalimantan Est et la Papouasie occidentale. Cette province de quatre millions d'habitants recèle d'importantes ressources naturelles, notamment en gaz naturel liquide. Le « *Mouvement Aceh Libre* » revendique depuis 1976 son indépendance à l'égard des autorités de Jakarta. Ce conflit a fait trente mille morts en trente ans.

<sup>xxii</sup> On pourra se référer à Robert Deliège, « le système de castes », PUF, Paris 1993 ; ou à Louis Dumont, « Homo Hierarchicus : le système de castes et ses implications » Gallimard, 1966.

<sup>xxiii</sup> Bodhisattva Ganguli, « Lost opportunities » in Business India, août 1997.

<sup>xxiv</sup> Business Today, août-septembre 1997

<sup>xxv</sup> Voir notre « Turbulences Chinoises », op. cit., publié dans la semaine des événements de Tien Anh Men en juin 1989. Le développement économique extrêmement rapide de la Chine nous paraissait alors s'effectuer beaucoup plus rapidement que ne pouvaient « l'absorber » les esprits longtemps étouffés ou bridés par un système communiste, où l'enrichissement personnel autant que l'individualisme étaient non seulement impossibles, mais surtout dénoncés et livrés à la vindicte populaire. La coexistence subite, à partir de Deng Xiaoping, du capitalisme dans les affaires et du communisme dans les esprits conduisaient, selon nous, à un inextricable syncrétisme et surtout à un risque de cassure systémique.

<sup>xxvi</sup> Guy SCHULDERS, « Développement : stratégie de l'urgence », Editions L'Harmattan, Paris 1990. Ce livre a été écrit lorsque nous nous trouvions en poste en République Centrafricaine, en tant que Directeur du Département d'Economie de l'Université de Bangui.

<sup>xxvii</sup> Nous avons personnellement vécu ce problème durant les dix-neuf années passées auprès des étudiants africains de 1973 à 1992.

<sup>xxviii</sup> le *Taoïsme*, procède d'une codification des pratiques et des traditions populaires des Asiatiques ; il s'agit d'un mélange de culte des esprits, de la nature et des ancêtres ; cette doctrine provient du philosophe chinois Lao-Tseu (VI<sup>e</sup> siècle av JC). Le Tao : « cours des choses » ;

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Philosophie à l'origine du yin (éléments positifs) et du yan (éléments négatifs). Nous ne développerons pas les principes de cette philosophie dans cet article.

<sup>xxxix</sup> le *Shintoïsme* a été la religion officielle polythéiste d'Etat du Japon jusqu'en 1945. Elle honore les ancêtres et les forces de la nature. Les Japonais sont généralement à la fois shintoïstes (pour les grands événements de la vie) et bouddhistes (pour ce qui concerne l'au-delà).

<sup>xxx</sup> Les adaptations du nom de *Confucius* dans les alphabets occidentaux ne peuvent être qu'approximatives (Kong Tseu, Kong Fu Tse, Confucius, 551- 479 av. JC).

<sup>xxxix</sup> Le Bouddhisme a été officiellement fondé par Siddhârta Gautama dans le Sud Népal au VIème siècle av JC ; il existe environ 600 millions de bouddhistes dans le monde ; cette religion s'est rapidement étendue à l'Occident au cours des deux dernières décennies.

<sup>xxxii</sup> L'on comprend, dès lors, toute l'influence du Bouddhisme sur la philosophie allemande du XIXème et du XXème siècle : Hegel parlait de la « philosophie du devenir » (toute entité engendre son contraire ; la vie engendre la mort), Nietzsche évoquait la « généalogie de la morale » et la possibilité de l'amélioration progressive de l'être humain, Schopenhauer était également bouddhiste, Albert Schweitzer s'intéressera beaucoup à cette religion qui n'est pas incompatible avec la croyance en un autre Dieu. Alexandra David-Neel, la célèbre spécialiste britannique de l'Inde comptait également parmi les Occidentaux célèbres convertis. Des artistes contemporains très en vogue se déclarent également bouddhistes.

<sup>xxxiii</sup> L'humanité fait l'objet d'un cycle de morts et de renaissances (comme le croyaient déjà les indiens) à cause d'une loi universelle de causalité (*karma*) ; mais ce cycle se terminera lorsque l'homme aura vaincu son ignorance (par sa méditation) et sera éveillé (*Bouddha*) ; le Bouddhisme est donc la recherche de l'éveil par la méditation, l'orientation de l'être vers l'anéantissement suprême, le *nirvanâ*, considéré comme la libération définitive.

<sup>xxxiv</sup> le Bouddhisme "*grand véhicule*" (Mahayana), qui existe encore en Chine, au Vietnam, en Corée et au Japon. Il repose sur la recherche de compassion universelle ; le croyant refuse la trop grande austérité et recherche son « éveil » par la bienveillance, le don et la compassion. Le Mahayana voue un culte à Bouddha et à ses saints (bodhisattvas) ;

le Bouddhisme "*petit véhicule*" (Hinayana), qui existe encore en Thaïlande, en Birmanie, au Sri Lanka, au Cambodge ou au Laos repose sur la pratique d'un ascétisme et d'un renoncement strict permis aux plus éclairés (élitisme) ; le Hinayana se veut fidèle à la tradition des Anciens. Ses croyants sont regroupés dans les monastères, entourés de laïcs qui espèrent se réincarner en moines dans une autre vie ;

le Bouddhisme "*zen*" au Japon fait partie du Bouddhisme grand véhicule et prône la rigueur et l'ascétisme, ; il ne regroupe que des moines et procède généralement de lectures répétées de textes sacrés, en position za zen (assise), et de la pratique des arts martiaux. Cette forme de bouddhisme a fait naître l'esprit "zen", qui constitue l'éclairage au Japon des « samouraïs » en plus de cérémonies de thé, de l'art floral, de la calligraphie, du tir à l'arc, etc.

le Bouddhisme tantrique ou "*véhicule de diamant*" (Vajrajana) se retrouve encore en Mongolie et au Tibet ; il procède de rites plus ou moins secrets, de la répétition à l'infini de textes et de formules sacrées (tantras et mandalas), et de l'utilisation d'objets de culte (musique, chapelets, moulins à prière, etc.).

<sup>xxxv</sup> CORAN: Verbe incréé de Dieu (attribut de Dieu et non création de Dieu), révélé par le truchement du prophète Mahomet "en arabe clair". Le Livre est divisé en 114 chapitres (sourates)

<sup>xxxvi</sup> Populations du Nord-est de l'actuelle Algérie, dont sont issus les habitants des actuelles wilayas algériennes de Tizi Ouzou, de Bejaia, l'est de la wilaya de Boumerdès, le nord de celle de Bouira et, en pays arabophone, de la wilaya de Jijel et de la presqu'île de Collo. Encore aujourd'hui, ces populations sont caractérisées par une natalité très supérieure à celle du reste de l'Algérie. L'économie de cette région s'est développée très rapidement dans les années soixante dix, puis a connu une baisse notable de rythme —due en partie à un fort ralentissement des investissements— et enfin un « printemps berbère » en 1981, relevant d'une revendication culturelle et identitaire de « berbéricité » (tamazight).

<sup>xxxvii</sup> On se reportera à l'ouvrage de Pierre Chuvin « Samarkand, Boukhara, Khiva », Editions Flammarion, 2001.

<sup>xxxviii</sup> Les Ottomans à Istanbul, les Saphavides à Ispahan, l'Empire du Grand Moghol en Inde, les Khans à Boukhara.

<sup>xxxix</sup> Des sultans turcs proclamèrent en 1839 « La Charte du Gülhane » instaurant l'égalité devant la loi de tous les sujets de l'empire ottoman.

<sup>xl</sup> Fondateur de la République turque en 1923, dont il restera le président jusqu'à sa mort en 1938. Chef charismatique de la lutte nationale turque de libération en 1919.

<sup>xli</sup> Mohammad Ali Mirza Kadjar devient Shah de Perse en janvier 1907. Six mois plus tard, l'Angleterre et la Russie se partageaient la Perse.

<sup>xlii</sup> Pétrole brut, gaz, ciment, chrome, charbon, cuivre, fer, manganèse, plomb, étain, zinc.

<sup>xliii</sup> Ces points seront développés dans les paragraphes qui suivent.

# Culture's Constraints: The Effect of Culture on Performance Management: A Seven Country Study

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## Abstract

Of all the available human resource management (HRM) processes, performance management (PM) is potentially the most powerful, if simultaneously the most problematic. This paper reports the findings of a recent research study of the usage, characteristics, and effectiveness of performance management systems across seven countries in the Asia Pacific region. Australia, Indonesia, Singapore, Thailand, Hong Kong, the Philippines, and Sri Lanka were surveyed. Whilst the sample sizes were widely divergent, ranging from only eight responses in Sri Lanka to almost one thousand in Australia, the themes which emerged are interesting not only for their similarity but also for their contextual differences. There are some signs of an increasing convergence between system types and usage, but as expected, this trend is undoubtedly mediated by specific socio-cultural differences.

## Introduction

The review of employee performance, and the management of their collective contributions to organizational effectiveness, have been perceived as a combination of informal and formal techniques which together have the potential to motivate individual employees and their work groups; to evaluate the efficacy of all human resource management (HRM) functions; and to provide organizations with a strategic advantage in their ongoing pursuit of competitive goals and imperatives. As a recent Australian National Audit Office (2004, p.13) report notes, "performance management provides a mechanism to systematically improve organizational performance by linking and aligning individual, team and organizational objectives and results. It also provides a means to recognize and reward good performance and to manage any identified underperformance".

However, despite its significant potential benefits to both individual employees and their organizations, including positive links to organizational financial performance (Rheem 1996, p. 3-4, McDonald and Smith, 1995), there is considerable empirical and anecdotal evidence suggesting that many managers and their organizations continue to regard performance management as a mechanistic and sometimes annoying annual ritual, with minimal understanding of the powerful HRM tool it can become. The effectiveness of performance management systems is determined largely by organizational philosophies and policies; the attitudes and skills of those responsible for their implementation and administration; together with the acceptance, commitment and ownership of appraisers and appraisees (Lawler, 1994, Hedge and Teachout, 2000). It may also be heavily influenced by national cultural frameworks and values, although this variable has seldom been explored.

Some critics of performance management have suggested that it "...nourishes short-term performance, annihilates long-term planning, builds fear, demolishes teamwork, and nourishes rivalry and politics" (Deming 1982, p. 102), and others (for example, McGregor, 1957, Levinson, 1970, Lawler, 1994, Glover, 1996, Glendinning, 2002), whilst supporting its underlying principles, are cynical about its practical implementation. Yet other authors (Gabris and Ihrke, 2000, 2001) emphasize the crucial importance of the notions of 'procedural fairness' and 'distributive justice' to the acceptance and efficacy of such systems. These latter dimensions may assume different meanings in diverse cultural contexts, but again there is little empirical data to date on such issues.

The globalization of business in recent decades has highlighted the importance of both nationally acceptable and internationally applicable management and human resource management paradigms, systems and processes, and has fuelled the contemporary debates on their convergence, divergence, or cross-vergence within Western and Asian contexts. If performance management is perceived as one of the most potentially significant

HRM tools, due to its capacities to measure and align employee and organizational performance; to motivate enhanced performance and employee satisfaction through demonstrable links between performance appraisal and associated remuneration and rewards systems; and to evaluate the overall effectiveness and utility of all other HRM processes, then a comparative study of the objectives, types, methods, outcomes, and difficulties of performance management systems used in a sample of Asia Pacific regional countries would seem to contribute significantly to the exploration of the differential applications of HRM processes within different national and socio-cultural contexts.

This is the intention of the exploratory study reported in this paper. Its significance lies in its contribution to the research data on performance management in a region which has had "...little research conducted... (and in which) the appraisal process may be misinterpreted as a signal of distrust or even an insult in some (regional) countries" (Vance et al 1992, p. 314). These authors go on to suggest that "...significance divergence in management styles across countries would lead to different employee needs and expectations for the effective design and management of the appraisal process" (ibid: 315-316), reflected in different variations and emphases in their chosen performance management systems. Accordingly, Habir and Lasarati (1999), interpreting Hofstede's (1982) cross-cultural research findings, posit that such Asian performance management systems would likely display "moral (rather than calculative) relationships between employers and employees...a strong need for harmony and face....paternalism... the acceptance of status differences...and reluctance to plan ahead"(p. 549). This paper attempts to ascertain the effects of these aspects on performance management systems in the chosen countries.

#### **Objectives of the Study**

The study proposed to:

- Obtain data on the purposes, types, and characteristics of performance management systems (PMS) utilized in a selection of Asia Pacific countries
- Explore the strategic focus of such PMS, and likely prospective changes
- Examine the perceived effectiveness of these PMS, and relevant success factors, and
- Compare and contrast the findings from the selected countries, with a view to determine the influence of socio-cultural factors.

#### **Methodology**

The research study was based on an initial pilot survey conducted by interview in 20 Singaporean companies (Mills, 2002), and with the author's permission, replicated in late 2003 throughout Australia. The latter study used a modified form of the Singapore research instrument, administered as an e-survey on the Australian Human Resources Institute (AHRI) website, and the findings have been separately published in both professional and scholarly journals. The Asia Pacific research project was conducted in early 2004, with the support of the Asia Pacific Federation of Human Resource Management (APFHRM), and administered by the various countries' HRM associations. This component of the study was conducted by conventional questionnaire method. This paper reports the comparative findings of the AHRI and APFHRM studies, including Australia, Thailand, the Philippines, Indonesia, Hong Kong, Sri Lanka, and Singapore, excluding the original Singapore data due to their different collection method.

The AHRI and APFHRM surveys used almost identical questionnaires, with only very minor modifications to reflect interpretive distinctions between Australia and Southeast Asian samples. The research instrument comprised nine (9) sections, including company and respondent demographics (e.g. industry, employee numbers, headquarters); PMS aims; system type and designer(s); strategic focus of the PMS (e.g. Balanced Scorecard); performance criteria/communication methods; performance appraisal methods and linkages; present and future trends; PMS training; and respondents' overall satisfaction with their PMS. Data from the surveys were analyzed using SPSS, and findings are reported only as frequencies.

#### **Limitations**

In all country samples, the respondents were HRM professionals and members of the respective professional associations, which skew the findings towards their perceptions, rather than those of employees, supervisors, middle and senior managers. Whilst this is an acknowledged limitation of the study, it may encourage more robust future studies, which will explore the perceptions of the latter groups. In addition, the relative sample sizes of the various countries range from n = 992 in Australia to n = 9 in Sri Lanka, with significant variations in between, supplying an

additional caution to the generalization of the findings. Rozhan et al (2000) and Salleh et al (2001) indicate that it is problematic to obtain representative research samples from Southeast Asian countries, an issue that needs to be addressed by regional researchers. However, despite these limitations, the data obtained from this regional study provide a relevant basis for subsequent more detailed research on PMS in the Asia Pacific region.

**Research Findings**

The detailed findings of the study are divided into the sub-categories of sample demographics; PMS purposes, types and designers; strategic focus and training; present and future trends, and overall effectiveness issues, for convenience.

**Sample Demographics**

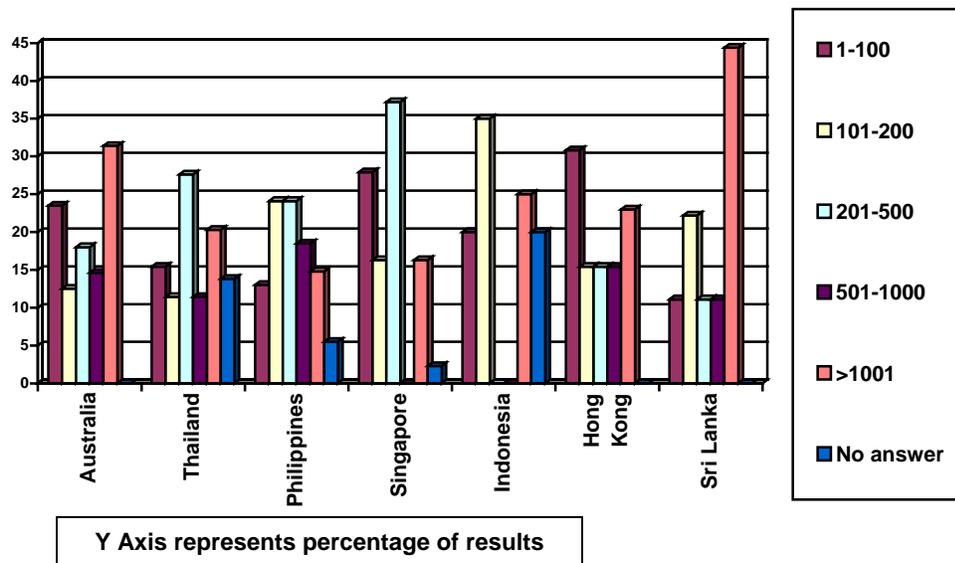


FIG. 1: DEMOGRAPHICS (NUMBER OF EMPLOYEES)

Fig. 1 shows the comparative distribution of the research sample with respect to company size (number of employees). As the figure shows, the sample includes respondents from small, medium and large organizations in all countries, with Sri Lanka, Australia and Indonesia having relatively greater proportions of large enterprises, but all countries having a broad spread of company sizes. The very small Sri Lankan and Indonesian samples obviously distort these findings, but the Australian and Thai samples are reasonably reflective of overall company sizes in those countries. All countries had more private than public sector representation, perhaps attributable to the sampling technique (i.e. use of professional associations), but all had broad industry representation, including general manufacturing, food and beverage, finance and related, electronic manufacturing, property and related, and shipping and logistics, sectors. Only the Australia and Thailand samples approximate their national industry sectoral distributions.

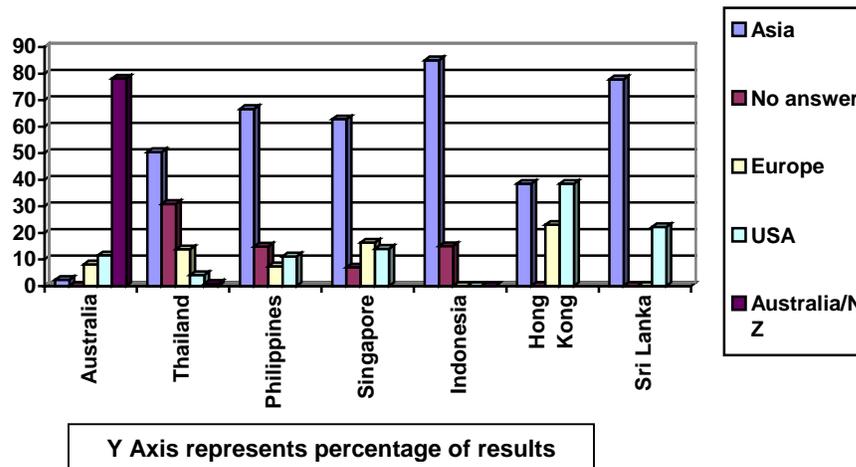


FIG. 2: ORGANISATION'S HEADQUARTERS LOCATION

As Fig. 2 shows, the survey respondents primarily came from locally-owned organizations, with only Hong Kong having a significant proportion of multinational parent companies. This is an important issue for this study, as it allows a clearer examination of the ways in which performance management systems are influenced by local rather than foreign cultural influences. As Laurent (1986), cited in Vance et al (1992, p. 314) suggests, “nationality (is) the most powerful determination of assumptions about performance appraisal”, and a predominance of multinational corporations in the study would likely have distorted these aspects.

**PMS Purposes, Types and Designers**

TABLE 1: PURPOSES OF PERFORMANCE MANAGEMENT SYSTEMS

Aims of PM/A	Australia (%) N = 992	Thailand (%) N = 123	Philippines (%) N = 54	Singapore (%) N = 43	Indonesia (%) N = 20	HK (%) N = 13	Sri Lanka (%) N = 9
Set performance objectives	2.4	50.4	75.9	76.7	75.0	76.9	66.7
Appraise past performance	88.9	50.4	92.6	72.1	50.0	92.3	66.7
Link pay to performance	50.7	50.4	79.6	93.0	30.0	84.6	44.4
Develop individual competencies	56.6	40.7	53.7	48.8	60.0	61.5	66.7
Determine training and development need	89.2	40.7	87.0	86.0	60.0	92.3	55.6
Assess future potential/promotion prospects	47.9	35.8	83.3	76.7	45.0	69.2	44.4
Assist career planning decisions	56.0	27.6	57.4	60.5	45.0	76.9	44.4
Retain high caliber staff	27.5	26.0	42.6	34.9	20.0	23.1	55.6
Change organization culture	28.0	13.0	22.2	9.3	25.0	15.4	11.1
Discipline/dismiss non-performing staff	28.9	12.2	53.7	32.6	50.0	61.5	22.2
Other reasons	4.2	1.6	1.9	7.0	5.0	7.7	0

Note: N = Number of respondents

As Table 1 illustrates, there are identifiable similarities and differences in the prioritization of the purposes of performance management systems (PMS) between the surveyed countries. Thus, all countries employ multiple purposes, with most (except Australia) setting performance objectives; appraising past performance; and fostering training and development outcomes, but there are interesting differences in the other listed aims. For example, the links between pay and performance are highest in the Singapore, Hong Kong, and Philippines samples, about half in

Australia and Thailand, and lowest in Sri Lanka and Indonesia. Similarly, the development of individual competencies; the assessment of future potential (except the Philippines and Singapore); the retention of ‘high calibre’ staff; organizational change; and discipline/dismissal, were not highly rated in most countries.

Whilst some of these similarities and differences might be attributable to the differential sample sizes, they may also have deeper explanations. These will be discussed in later sections, but as an example, the pay-performance link is arguably more problematic in a highly-regulated and more strongly-unionized country such as Australia (despite recent industrial relations changes) or ‘high context’ countries such as Indonesia, and somewhat easier to achieve and more socially acceptable in Singapore, Hong Kong and the Philippines. Similarly, the retention of staff, discipline and dismissal imperatives will likely depend on local macro- and micro- labor markets, traditional career patterns, or the degree of technological development, as well as socio-cultural influences.

TABLE 2: TYPES OF PERFORMANCE MANAGEMENT SYSTEMS

PM/A Systems Design	Australia (%) N = 992	Thailand (%) N = 123	Philippines (%) N = 54	Singapore (%) N = 43	Indonesia (%) N = 20	HK (%) N = 13	Sri Lanka (%) N = 9
Performance Management	63.9	49.6	57.4	60.5	30.0	46.2	33.3
Trait Based	12.5	25.2	51.9	39.5	45.0	38.5	55.6
Management By Objectives (MBO)	7.2	16.3	29.6	37.2	25.0	30.8	22.2
Team Performance Management	12.1	16.3	16.7	9.3	5.0	23.1	11.1
No Formal System	3.6	8.9	0	7.0	0	0	0
Hybrid System	21.1	5.7	22.2	16.3	25.0	38.5	22.2
Ranking system	0	0	27.8	20.9	10.0	7.7	11.1
360 Degree (Multi-rater) System	0	0	14.8	11.6	0	0	0

Note: N = Number of respondents

Table 2 displays the *types* of systems used to appraise employees, ranging from ‘performance management’ (which was defined in the study as ‘linked to the organization’s strategic direction and key measures’), ‘hybrid’ (defined as ‘a combination of system types’), ‘team performance’ (an element of team feedback), MBO and 360 degree/ multi-rating, to more traditional ranking and trait-based systems. As indicated, only a majority of Australian, Singaporean, and Philippines respondents employ the more integrative ‘performance management’ system type, whilst the majority of all country respondents (except Australia) use more conventional trait-based, ranking, and MBO types. Team performance and 360 degree systems are not reported as significant in any of the countries, but hybrid types have some support in Indonesia, the Philippines and Australia.

It is interesting that the use of Management by Objectives, which was the most popular system in earlier Australian studies (Nankervis and Penrose, 1990, Nankervis and Leece, 1995), has declined there considerably in recent years, but is still reasonably popular in Singapore, Hong Kong, the Philippines, and Indonesia. Future trends in the types of PMS are discussed later in the paper, but it might be noted here that the continuing usage of trait-based and ranking systems, and the lack of present support in all countries for team and multi-rater appraisals, are likely to reflect national social and cultural issues. These findings are arguably significant (and of concern) within an increasingly globally competitive business environment, which demands objective, comparative, and comprehensive performance data both individually and collectively.

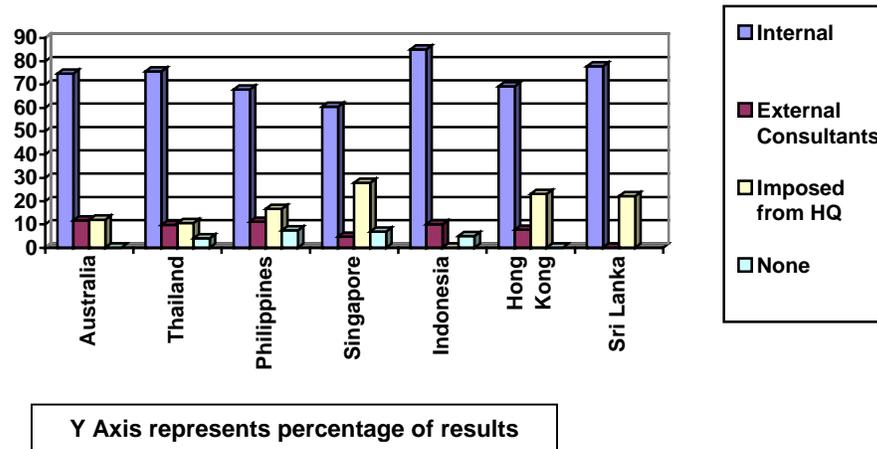


FIG. 3: PERFORMANCE MANAGEMENT SYSTEM DESIGNER

Fig. 3 shows that, in all countries, the *designers* of PMS are primarily internal organizational staff, presumably mostly human resource management professionals, with little use of external consultants, or systems imposed by foreign owners, consistent with earlier demographic data. It may be argued that a strategic approach to performance management demands both design by professionals with sound knowledge and understanding of organizational imperatives, and newer and more comprehensive PMS, which reflect these.

**Strategic Focus and Training**

This section of the study sought to ascertain the extent of the conscious integration of organizational and individual values and objectives within performance management systems, and in particular the degree of acceptance of the Balanced Scorecard (BSC) method. Fig. 4 below shows the prevalence of the use of vision/mission statements, critical success factors, organizational values, and the BSC. It demonstrates that, whilst vision or mission statements are popular in all countries; and that the promotion of organizational values is more used in Australia, Hong Kong, the Philippines, and Singapore; critical success factors (the link between individual and organizational objectives) are less employed in all surveyed countries. The Balanced Scorecard is also currently less popular, although the Philippines and Australia report reasonable usage, and future trends (see later) indicate a likely increase in several other countries.

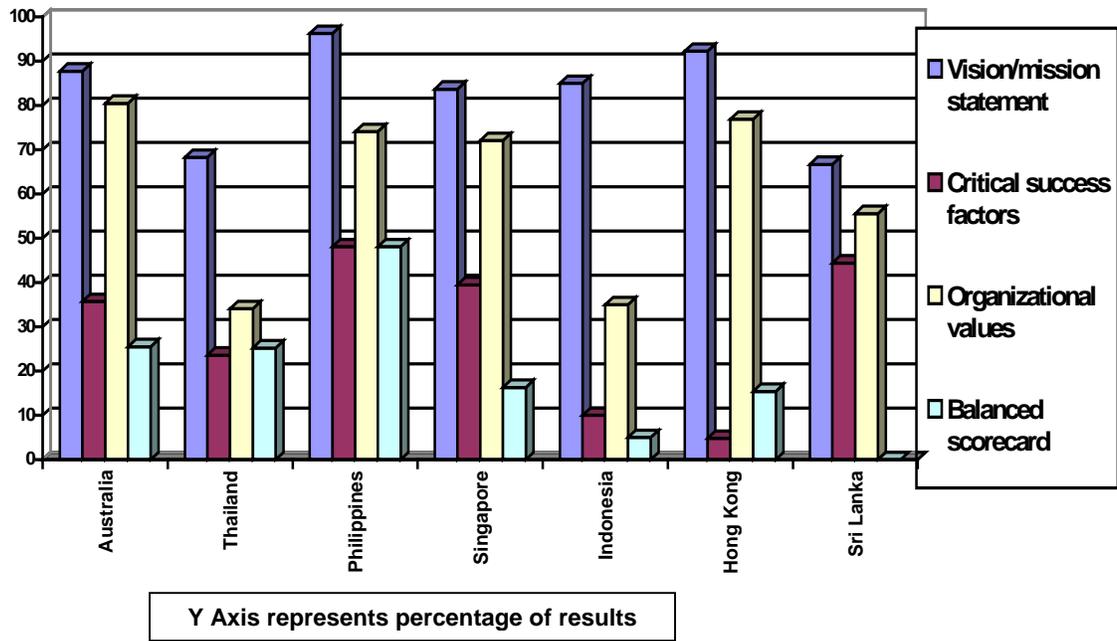


FIG. 4: STRATEGIC FOCUS OF PERFORMANCE MANAGEMENT

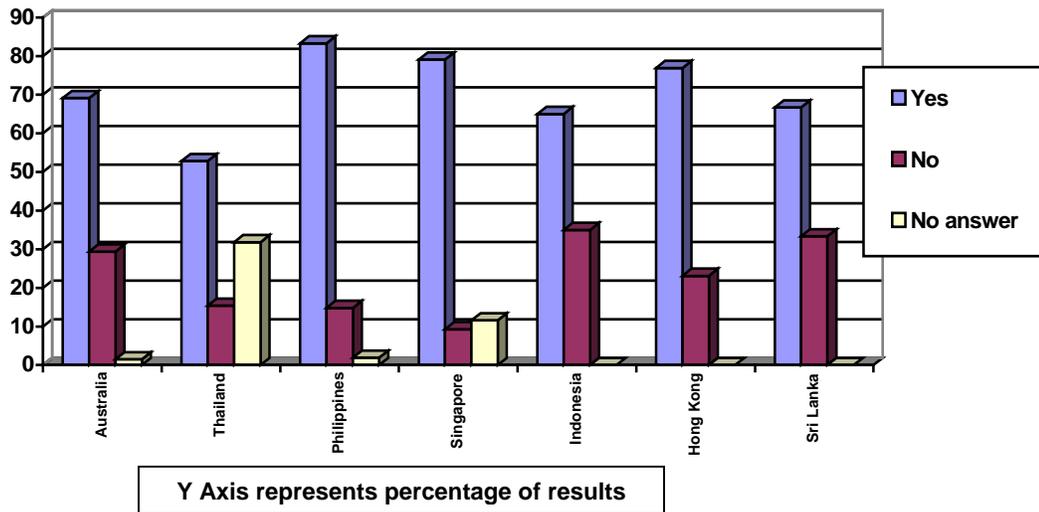


FIG. 5: TRAINING FOR PERFORMANCE MANAGEMENT

It can be argued that an important, if not crucial, determinant of the effectiveness of PMS overall, and a strategic bridge between individual and organizational objectives, is the degree and nature of training provided to

both the appraisers and appraisees. As Fig. 5 illustrates ('yes' responses indicate specific appraisal training), the proportion of training varies between countries, with the highest amount in the Philippines, Singapore, Hong Kong, and Australia, and the lowest in Thailand, Sri Lanka and Indonesia. In the Australian case, appraisal training has declined from around 85 percent in 1990-1995 to around 70 percent presently (Nankervis and Penrose, 1990, Nankervis and Leece, 1995), perhaps reflecting a lack of commitment to PMS. On the other hand, the Philippines, Singapore and Hong Kong report a higher degree of appraisal training than other countries. Training may of course be more or less acceptable, especially in relation to performance management, given its deep cultural connotations in several of the surveyed countries. These issues will be further discussed in later sections.

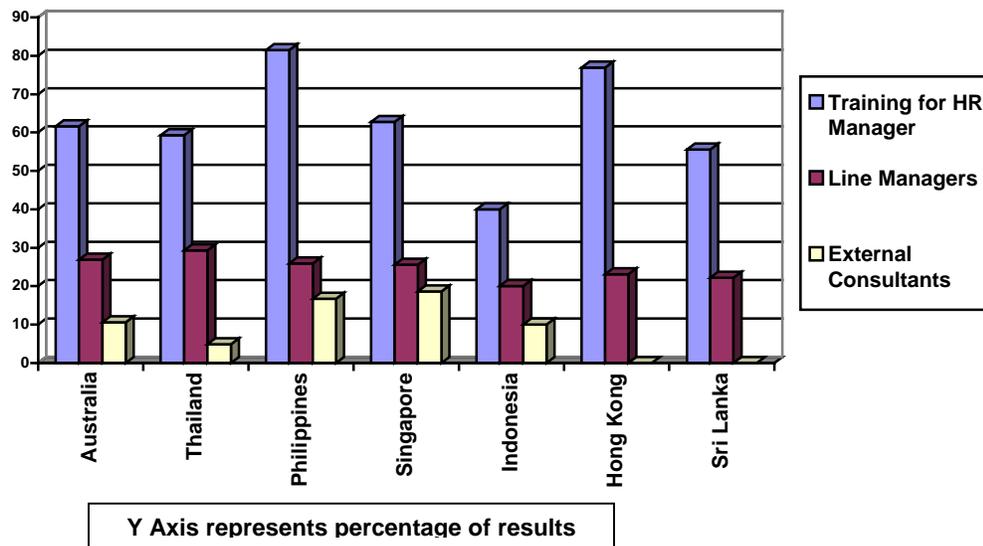


FIG. 6: PERFORMANCE MANAGEMENT TRAINERS

Fig. 6 shows the trainers employed and suggest that, as with systems designers (see Fig. 3); most respondents use their HRM professionals to conduct such training, together with line managers, and to a significantly lesser extent, external consultants. The choice of in-house specialists rather the external consultants may reflect cost issues, but it may also indicate the intention and ability to ingrain the linkages between individual and organizational performance as an important element of performance management systems within corporate training and development programmes.

**Present & Future Trends**

Tables 3 and 4 below detail the responses to questions concerning the present and projected future usage of a variety of performance management techniques and tools in the studied countries. The tables indicate that some change is occurring with respect to the methods used, albeit differentially in different countries.

TABLE 3: USAGE OF PERFORMANCE MANAGEMENT PRACTICES

**A. PRESENT – RARELY USED**

	Australia (%) N = 992	Thailand (%) N = 123	Philippines (%) N = 54	Singapore (%) N = 43	Indonesia (%) N = 20	HK (%) N = 13	Sri Lanka (%) N = 9
Balanced Scorecard	58.4	48.0	51.9	58.1	75.0	84.6	88.9
360/Multi-rater feedback	62.0	56.9	64.9	65.1	35.0	69.3	88.9
Upward Appraisal	68.5	48.0	70.4	62.8	25.0	76.9	77.8
Team Appraisal	75.8	44.8	59.3	67.4	40.0	76.9	88.9
Forced Ranking/Bellcurve	76.2	25.2	35.2	32.6	20.0	46.2	33.3
Manager Training	25.1	20.3	13.0	7.0	20.0	53.9	22.2
Employee Training	36.6	14.7	18.6	27.9	25.0	46.2	22.2

Note: N = Number of respondents

	Australia (%) N = 992	Thailand (%) N = 123	Philippines (%) N = 54	Singapore (%) N = 43	Indonesia (%) N = 20	HK (%) N = 13	Sri Lanka (%) N = 9
Balanced Scorecard	36.0	26.8	33.4	23.3	15.0	7.7	0
360/Multi-rater feedback	33.5	13.8	18.6	16.4	50.0	15.4	0
Upward Appraisal	26.3	23.6	9.3	18.6	60.0	7.7	11.1
Team Appraisal	18.7	28.5	14.9	16.3	45.0	7.7	0
Forced Ranking/Bellcurve	18.0	44.6	38.9	48.8	65.0	30.8	55.5
Manager Training	70.9	55.3	74.1	74.4	70.0	38.5	66.6
Employee Training	59.5	59.3	66.7	53.5	65.0	46.2	66.6

Note: N = Number of respondents

TABLE 4 – USAGE OF PERFORMANCE MANAGEMENT PRACTICES

**B. FUTURE – WILL NOT USE**

	Australia (%) N = 992	Thailand (%) N = 123	Philippines (%) N = 54	Singapore (%) N = 43	Indonesia (%) N = 20	HK (%) N = 13	Sri Lanka (%) N = 9
Balanced Scorecard	33.5	21.9	26.0	20.9	15.0	76.9	55.6
360/Multi-rater feedback	31.1	29.3	27.8	41.9	15.0	46.2	44.4
Upward Appraisal	43.0	32.0	35.2	46.5	10.0	69.3	55.6
Team Appraisal	50.6	22.0	27.8	37.0	15.0	69.2	33.3
Forced Ranking/Bellcurve	69.0	20.4	27.8	23.3	15.0	61.6	33.3
Manager Training	8.3	5.7	1.9	7.0	10.0	15.4	11.1
Employee Training	14.1	5.7	5.6	14.0	5.5	15.4	11.1

Note: N = Number of respondents

	Australia (%) N = 992	Thailand (%) N = 123	Philippines (%) N = 54	Singapore (%) N = 43	Indonesia (%) N = 20	HK (%) N = 13	Sri Lanka (%) N = 9
Balanced Scorecard	44.7	52.0	42.6	44.2	45.0	7.7	44.4
360/Multi-rater feedback	59.2	41.5	40.8	25.6	45.0	46.2	55.5
Upward Appraisal	33.3	36.6	33.4	20.9	50.0	23.1	44.4
Team Appraisal	39.3	51.2	35.3	37.2	45.0	23.1	55.5
Forced Ranking/Bellcurve	20.3	44.7	35.2	53.5	45.0	30.8	66.6
Manager Training	82.7	70.7	64.9	74.4	50.0	69.3	88.9
Employee Training	77.2	70.5	63.0	67.4	55.0	69.3	88.9

Note: N = Number of respondents

Presently, the *Balanced Scorecard (BSC)* is proportionally more common only in Australia (36%), the Philippines (33.4%), Thailand (26.8%), and Singapore (23.3%), but these proportions appear to be likely to increase significantly in those countries, and most others into the future. If a reliable trend, this may be important as the BSC represents an attempt to link strategically individual and employee performance towards enhanced organizational productivity and competitiveness, but may be more difficult to implement in some national contexts than others. The upward trend appears greatest in Thailand and Singapore than in other countries.

*Multi-rater (or 360 degree) appraisal*, perhaps the most inherently problematic of all performance appraisal systems, is currently only popular in Australia, and even there anecdotal experience suggests that it often fails to achieve its objectives. Despite this, Australian respondents suggest that usage will increase significantly, as do respondents from Hong Kong, Thailand, the Philippines, and Singapore. The findings from Indonesia and Sri Lanka are confusing. This appraisal method depends on positive and critical performance feedback from a variety of sources (for example, peers, supervisors, customers, suppliers, subordinates), and whilst theoretically valuable in providing a broader and deeper picture of employee performance, it is doubtful whether it would be acceptable or practical in countries where hierarchies and ‘saving face’ are essential elements of national cultures.

If 360 degree appraisal is difficult in such cultures, then *upward appraisal* (i.e. feedback from subordinates, either alone or as part of multi-rater appraisals) would seem improbable. Nevertheless, respondents report likely future usage, especially in the Philippines and Hong Kong. The Sri Lankan and Indonesian responses are again confusing. *Team appraisal*, on the other hand, would seem more attractive in countries classified as collectivist by researchers such as Hofstede (1982), and there is an apparent trend towards increased use in the future, especially in Thailand, Australia, Singapore, the Philippines, but less in Hong Kong. Again, the Sri Lankan and Indonesian data is unreliable.

*Forced Ranking (or the Bellcurve)* is a standardized, if arguably inequitable and discouraging, approach to performance appraisal, and is neither currently popular in Australia nor projected to become more attractive in the future. Usage is not predicted to rise in the future in any country except Singapore, which may be explained by national cultural issues. In some countries its use is projected to decline.

Perhaps a more disappointing finding is the present relatively low levels of manager (from 74.4% to 38.5%) and employee (66.7% to 46.2%) *appraisal training* in all countries, which rise only marginally in future predictions.

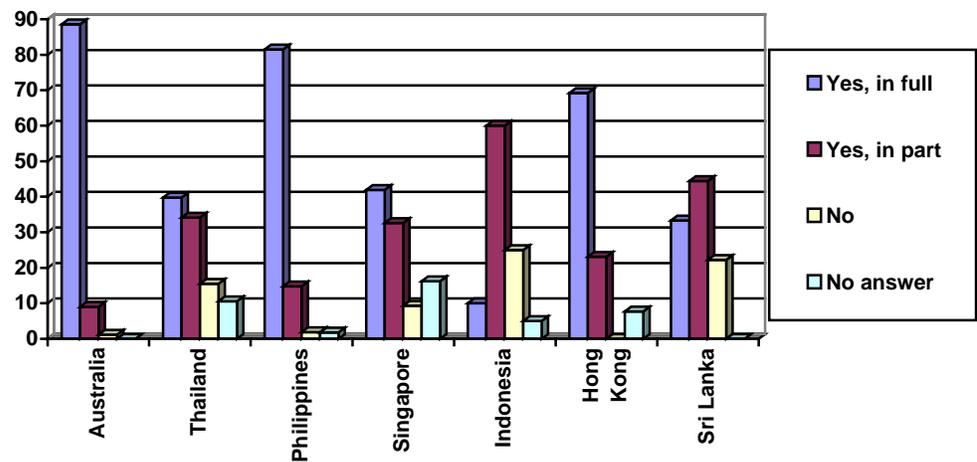


FIG. 7: EMPLOYEE DISCLOSURE OF PERFORMANCE MANAGEMENT REPORT

Fig. 7 illustrates the proportions of respondents who fully or partly disclose the results of performance appraisals to their employees. Whilst Australian and Philippines organizations are by far the most transparent, with between 80-90 percent full disclosures, Hong Kong provides a significant degree of feedback. Indonesian respondents provide high 'partial' disclosure, with Singapore, Thailand and Sri Lanka disclosing the least. The reported areas of least performance feedback include future potential, career and salary outcomes. Again, these findings may reflect hierarchical cultures, or the reluctance to directly give critical feedback due to socio-cultural issues.

### Overall Effectiveness

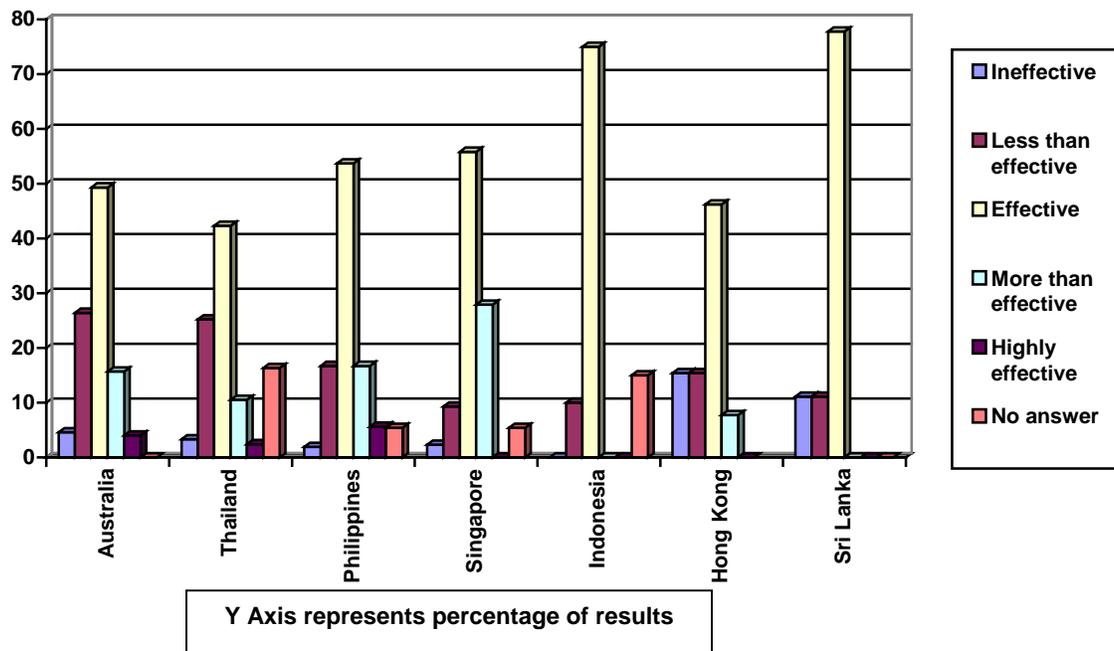


FIG. 8: PERCEIVED EFFECTIVENESS OF PERFORMANCE MANAGEMENT

As the Figure shows, the degree of perceived effectiveness of PMS varies by country, ranging from almost 84 percent in Singapore and around three quarters in the Philippines and Indonesia (and Sri Lanka), to approximately 70 percent (down from 84 percent in 1995 – Nankervis and Leece, 1995) in Australia, and roughly half in Thailand and Hong Kong. The best systems enshrine ideal principles of performance management such as the strategic alignment of organizational and employee goals and outcomes; user friendliness; consistency, equity, and transparency; and clear links between appraisal and salary review, human resource development, coaching and succession plans. The less attractive systems either fail to incorporate these qualities, or provide inadequate communication, employee feedback, and/or appraisal training.

*Some reflective comments on the positive features of systems included:*

“Sets individual goals linked to operational and strategic plans”

“Collaborative approach, senior management commitment, communication”

“It increases everyone’s awareness of their roles and how they fit into the organization”

“Open discussion, focused opportunities for discussion, active and useful dialogue, honest feedback, one-on-one communication”

*Less favorable remarks included:*

“Directors need to understand (sic) value of performance review”

“Computerized database is administered from (sic) US-cumbersome which creates pushback from employees”  
“I have yet to see a formal procedure that is effective. However I would use one if available”

#### **Discussion**

It is clear from this study that performance management is recognized universally as an important component of the HRM agenda, demonstrated by the continuing high reported levels of usage. However, as the research sample was comprised primarily of HRM professionals, it is not clear whether their senior and middle managers, and supervisory colleagues, fully recognize its value within an increasingly globalized and competitive business environment.

Whilst the findings of the study indicate high levels of usage of such systems, with some interesting differences between regional countries, they reveal both similarities and differences in their purposes, methods, strategic focus, present and future trends, and perceived overall effectiveness. Some of these similarities and differences may reflect individual countries' particular socio-cultural frameworks and influences, or their relative stages of economic development.

However, some caution in the interpretation of findings is required, due to the different sample sizes (from 992 in Australia to 9 in Sri Lanka) and the study's emphasis on the perceptions of (only) HRM professionals. In light of the notorious difficulties in obtaining representative research samples in the region (Rozhan and Poon, 2000, Salleh and Lailawati, 2001), future researchers may need to adapt more innovative approaches in order to explore the nature and effectiveness of PMS within individual countries and across the region.

Nonetheless, despite these concerns, the findings from this study contribute to scholarly knowledge and understanding of the convergence between performance management theory and practice in the region, including the influences of social and cultural issues.

Thus, the study canvassed the opinions of HRM professionals in seven countries – namely, Australia, Singapore, the Philippines, Indonesia, Hong Kong, Thailand and Sri Lanka – with a range of small, medium and large size companies, some balance across the public and private sectors, and broad industry coverage. The majority of respondents come from locally – owned organizations, and may thus reflect local social and cultural influences on their PMS.

The reported purposes of PMS in most countries are fairly traditional – setting objectives, appraising past performance, and linked to training and development – with little support for arguably more strategic objectives such as the retention of 'high calibre' talent, the assessment of future potential, or change-management. Links between pay and performance were highest in Singapore, Hong Kong and the Philippines, and lower in other countries. These differences may be explained by the greater competitive imperatives for performance in Singapore and Hong Kong, US influences in the Philippines, the constraints imposed by the industrial relations system in Australia, and cultural inhibitors in Indonesia and Thailand. It is interesting that links between pay and performance in Australia have increased significantly since earlier studies (e.g. Nankervis and Penrose, 1990, Nankervis and Leece, 1995), possibly due to flexibilities in employment conditions introduced in recent years. The absence of strong support for more strategic purposes of PMS perhaps suggests that HRM professionals have not yet come to terms with the potential of PMS to contribute to broader organizational outcomes. Local labor markets (e.g. Indonesia, Sri Lanka), different levels of technological development, and more traditional career patterns, may also detract from a more strategic perspective of the value of performance management.

With respect to the types of PMS presently used, many countries are still using conventional trait-based and ranking systems (Singapore, Hong Kong, Philippines, Indonesia), at the expense of arguably more strategic 'performance management' and 'hybrid' types (Australia and Singapore). MBO has retained its popularity, except in Australia where its use has declined considerably. Support for the more conventional types may reflect relational rather than transactional employment perspectives, based upon the acceptance of hierarchical management styles (Vance et al, 1992) and 'face-saving' imperatives.

Projected future trends include some movement towards more complex and innovative PM types such as 360 degree (or multi-rater) and team appraisals (Thailand, Singapore, the Philippines, Australia), with support for the more controversial upward appraisal limited to the Philippines and Hong Kong. Presumably the relatively low support for team appraisals in countries classified as 'collectivist' (Hofstede, 1982), such as Sri Lanka and Indonesia, is due to their reluctance to erode the authority of managers or to engage in forums which may provide both positive and more critical feedback. Similar factors undoubtedly underline the relative lack of full disclosure of

performance data to employees in countries such as Singapore, Thailand, Indonesia and Sri Lanka. Despite these explanations, the continued avoidance of innovative PM systems with the capacity to provide both more comprehensive and more objective performance data and feedback may diminish the contributions of PMS to organizational effectiveness and competitiveness.

On a more positive note, most respondents report that their organizations possess written vision or mission statements, and some (Australia, Singapore, the Philippines, Hong Kong) have developed articulated organizational values and critical success factors, with a rising use of the integrative Balanced Scorecard (especially in Australia, the Philippines, Singapore and Thailand). In an encouraging reversal of the prevalent HR outsourcing trend, PMS are usually designed by in-house professionals, who also generally conduct relevant training. HRM professionals are arguably in the best position to ensure the integration of individual and organizational performance, and to reinforce these links within performance management training programs. Training is however comparatively low, and declining in some countries.

As the primary designers and trainers of PMS, it might be expected that HRM professionals would consider their PM systems to be highly effective. This research sample suggests, however, that this is not the case. Satisfaction ranges from 84 percent in Singapore, reducing for the Philippines, Indonesia, Australia and Sri Lanka, with only half of the Thailand and Hong Kong respondents satisfied. The reasons for their satisfaction or dissatisfaction are detailed earlier, but they generally relate to the strategic contributions of PMS, the acceptance and commitment of senior management, and their user-friendliness. It would be interesting to assess the comparative satisfaction levels of their systems' end-users, namely managers, supervisors and employees.

## Conclusion

This paper reports the findings of a regional research study which explored the nature, types, usage and perceived effectiveness of performance management systems in seven neighboring countries. Despite considerable variations in sample sizes between the countries, the study reveals both similarities and differences. These similarities and differences are analyzed in the paper with respect to their possible causes and implications, including socio-cultural and strategic issues.

Overall, all countries use performance management systems extensively, but apply them differently in relation to their purposes, methods, present and future trends. All countries' respondents express limited satisfaction with the effectiveness of their chosen systems. There are concerns that the strategic value of PMS is constrained by cultural traditions, labor market differentials, and outmoded career patterns, which may disadvantage some countries within a global marketplace.

It is hoped that the study will stimulate more comprehensive country and regional research on a collaborative basis in the future.

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# **The Strengthening of Canada-China Relations and the Importance of the Transference of their Chinese Ethnic Minorities: A Challenge for the Future of Canada-Mexico Relations**

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## **Abstract**

The China phenomenon is a very large and complex issue. There is sometimes a misunderstanding when we just analyze a bilateral relation linked with China, for example the relation Canada-China. The approach to this topic has to be the study of two economic regions confronted and, at the same, connected, Asia Pacific region and North American region. Inside this wider economic and commercial approach, we have the relation between the most important United States' trade partnership of and its second most important. In both cases, the strengthening of Canada-China relations affects the Mexican position, not just with Canada, but also with United States in the framework of NAFTA. The Canada-China relations has been more important, despite its lack of an economic agreement, thanks to people-to-people relation between the two countries, becoming a very important germ for a deeper relation despite the geographic position of Mexico and its special situation in the hemisphere.

## **Introduction**

*"I have come to the conclusion that, in this defying globalized world, Canada will not reach its full potential without compromising, connecting and benefiting from its relationship with China in the 21<sup>st</sup> Century".*

*Mr. Joseph Caron, Ambassador of Canada in China. 05/30/2002.*

The year 2004 not only represents the 60<sup>th</sup> anniversary of the reestablishment of diplomatic relations between the Canadian and the Mexican government, but also celebrates the first 10 years of the implementation of the North Atlantic Free Trade Agreement (NAFTA), which is in part responsible for the vertiginous increase in trade, direct investment, exchange of students, among other areas. However, this is also the time when both countries must revise deeply and with a long-term perspective, the structure in which its relationship has been based on, particularly focusing on the commercial aspect.

There are two factors that support this argument. On one hand NAFTA has not completely reached the principal objectives that justified its creation. On the contrary to what one might assume, the objective were not all about increasing the amount of the exports, but on creating, particularly for the Mexican economy, more and better employment, productive chains, stopping the migration flow, closing the income gap among social sectors and regions, for example. On the other hand, there is the presence of China in the international markets, consolidated as the world exporting platform, giving incentives for transnational companies, which need to be competitive in prices and production volumes, to move part or the total of their production into this Asiatic country.

Therefore, the most important United States and Canadian firms have started to switch their investments to the Chinese industrial development zones, affecting the amounts and destiny of these investments to Mexico, which have not only not grown, but also have been focused on buying plants or companies already installed or commercial banks,<sup>i</sup> contributing in an important way to the displacement of Mexico in both markets for the last two years by China.

In the particular case of the Canada-Mexico relation, it can be observed that at the end of 2003, when China achieved the position of the second commercial partner for Canada, displacing Japan, it also caused Mexico to fall to 4<sup>th</sup> place. Canadian imports from China in that year ascended to 13,764 million dollars and its exports reached the 3,397 million dollars, while the Canadian imports from Mexico, in the same year, were 8,109 millions dollars and its exports added only 1.582 million dollars.<sup>ii</sup>

The explanation for this reality has to do with two elements. First, with the economic reform in China, based on the configuration of the Strategic Economic Zones (SEZ), where the multinational corporations from the United States, Canada, Japan and Europe, have been located since the 1980's and 1990's. They have been exporting from there to their respective countries or to other markets, finished or semi-finished products, generating utility margins and strengthening the intrafirm commerce. And, second, having Chinese ethnic minorities combined with a multiethnic domestic policy and privileging a focus on the Pacific basin, have permitted to Canada to be one of the few countries that have been able to establish a multi-sector and multi-region long term strategic relation of mutual benefit, not only for their principal economic actors involved, but also for the ones from the People's Republic of China and Hong Kong,<sup>iii</sup> directing, in this way, the Canadian economy further to the Asia Pacific region.

## Historical Perspective of Canada-China Relations

Today, there has been much discussion about the process of globalization as the phenomenon of the XXI century, which has been possible in great part because of the advances in telecommunications and transportation. However, this process really goes back in time into the beginning of the II century B.C., when the Quin dynasty traded with the Roman Empire throughout the Silk Route. Although one of the principal motivations for this approach between these civilizations was, and continues to be, the commerce of goods, the cultural elements of each came in contact with trade. Moreover, it was the second more than the first that strengthened the commerce among diverse nations. The cultural developments of one civilization lead it to the creation of new artifacts and inventions that were highly valued in other latitudes. The relation between Canada and China, or better said between occident and East Asia, has this background.

It was the great motivation of the European traders, who saw their capital grow as a result of the selling of products from the "Indies" to the elite of the old continent, which led them to adventure dangerously through the sea. This took place once the "*Mongolic Pax*", the safest ground route that have ever existed between the Mediterranean and the Pacific coast had ended. The maritime race that was unleashed in the region, which is only comparable with the post-war space race, led to, among other things, the discovered and followed colonization of America, from what is today Canada francophone to the Patagonia. Since this moment the new continent would not stop to have contact and relations with the Asiatic one.

The Spanish empire, despite the fact that it had enriched itself with gold and silver mines of its new properties in the south of the Rio Bravo, never erased from its mind the richness and exotic products from the "Indies". Hence by 1571 the Spaniards, through the Chinese Nao or the "Galeon de Manila", achieve their goal to get profits from this route year after year, for more than two centuries. Therefore hundreds of products and cultural traditions went from East Asia, passed through Mexico and Latin America and finally reached Spain. The cultural heritage that was left in the New Spain and its metropolis is invaluable.

The first French and English who colonized North America through private companies arrived seeking the famous "North Route", a road that could allow them to reach the "Indies" avoiding the territory in Spanish control. The historic conditions in Europe ended with the seeking of the road and gave way to the establishment of pilgrims that fled from a continent that persecuted and threatened them for professing new beliefs. In this form, two new countries were created, the United States and Canada. Both share today an endless number of cultural elements, agendas, projects, etc., as well as a focus on the Pacific since the XIX century, when the United States built the train rail that connected its east coast with the Pacific Ocean.

Thus, the Chinese presence in Canada comes from that same century when the gold fever and the necessity to construct infrastructure were the principal trends in the territory. Since that moment until 1949, the bilateral relation was very unstable. Nevertheless, there are some episodes *sui generis* such as the presence and support of the Canadian doctor in medicine Norman Bethun in 1938 to the Chinese liberation army during the most difficult times for the cause of the communists, which created a strong friendship bond and approach between both countries. This situation however did not allow their governments establish diplomatic relations until 1970. The previous attempts for this objective in the 1960's made clear that, despite the potential political conflict with the U.S. government, Canada would establish a bilateral agenda with China and other communist governments congruently with its

domestic and foreign policy. For the Chinese, this marked a great precedent for the current strengthening of the bilateral relation with a tone of respect and mutual confidence.

In 1971, a Chinese embassy was opened in Ottawa and by 1973 the Canadian Prime Minister, Pierre Trudeau, traveled to China and opened consular missions and the Beijing embassy. Since that moment, year after year the understanding and closeness between both parts has increased, not only in the commercial, but also in the political and cultural areas. By 1978, the Canada China Business Council established a strong commitment to bilateral relations. In 1986, the Canadian Prime Minister, Brian Mulroney, visited China, opened the General Consulate in Shanghai, and established a support agreement with the Chinese government in its strategy to adhere to the GATT. In those years, multiple commercial missions were made in both ways; more consulates and government offices were opened, until 1999, when Canada signed the bilateral agreement so that China could enter the World Trade Organization (WTO). In the same year, the total bilateral commerce achieved was 11,400 millions of Canadian dollars. The Canadian investment in China went into 4,300 projects, making Canada the tenth commercial partner for China.

By 2000, the majority of the more important Canadian corporations were in China: Nortel, Bombardier, Power, New Bridge, Pratt & Whitney, among others. At the provincial level, China represented, for example, the second most important export market for Manitoba and its third world provider. From 2001 to date, the level of closeness between Canada and China has reached unexpected levels, placing China among the more important countries into the commercial and political Canadian radar, with the potential of strengthening even more in the next decade.

## **Economic and Commercial Canada-China Relations since Chinese Economic Reforms**

The Chinese economic opening, that took place at the end of 1979, started under the strategy known as the “Four Modernizations”, which embraces the idea of modernizing different sectors: the agriculture, industry, army, and research and development. The way in which this opening was handled was through the development of the Strategic Economic Zones (SEZ) in 1980. At the beginning, four cities were the first to have this preferential treatment: three in the Guangdong province and one in the Fujian province. The SEZ of Guangdong were: Shantou, Shenzhen and Zhuhai, the last two located exactly in front of Hong Kong and Macao respectively. And the SEZ in Fujian was Xiamen, geographically in front of Taiwan.

This four SEZ tried to translate into practice the “One State –Two Systems” theory, meaning the acceptance of elements of the market economy inside of a State in which a centralized socialist system would prevail. The fact that Shenzhen was the province in which the experiment of the Chinese economic opening took place is related to the new strategy of the new political elite of using the economic resources at hand, as well as, the knowledge of advance administration and the international market nets of the Chinese located in Hong Kong. Similarly, there was also the thought of bringing the ones in Taiwan and Southeast Asia, where the Chinese ethnic minorities control more than 60% or 70% of the market and of the more important industries, overall in the export business.

The experiment was extended to another 14 coastal cities by the mid 1980’s, among them the Delta Yangtze region, where is located Shanghai city, and Bohai Bay, where Beijing and Tianjin are located. In a short period of time these new zones of development, most of all of technology and industrial conversion with private and foreign capitals, began a third stage of opening including some cities of the interior. Thus, before China got its entry into the WTO, during the third ministerial meeting in Doha, Qatar, in November 2001, it had achieved the opening of 56 Economic and Technologic Development Zones, 53 High Technology Industries Zones, 4 Taiwanese Inversion Zones, 14 Economic Cooperation Zones, 34 Export Processing Zones and 11 Tourism Development Zones.

In this way, the Chinese government has managed to establish the most important export platform worldwide, through the implementation of the industrial policies in the SEZ and other opening areas, in contrast to the Mexican opening project via the “maquiladora” strategy (processing of raw materials for exports). In addition to the processing stage, economic activities were extended to other areas, such as agriculture, fishing, commerce, real estate, tourism, banks and insurance companies. These activities were accompanied with a strong source of

investment in infrastructure, as well as incentives for the investment of domestic capital. Therefore, through the implementation of the mutual benefit scheme, as part of a series of incentives, the Chinese government sustained its target to privilege the attraction of advanced technology over the creation of jobs and reception of foreign capital from exports.

The access of China to the WTO responded more to the approval of the principal economic powers through bilateral negotiation, rather than to a multilateral agreement and understanding. The most important negotiations took place between United States and China, and the latter with the European Union. The agreements reached in these negotiations basically conformed the scheme that the other countries involved in the negotiation followed. As for Canada, its major strategy at the time to negotiate with the Chinese government was that of seeking other areas and regions that did not confront the interests of both the United States and the European Union, and where it could obtain the most possible benefits.

For those reasons, and without leaving aside the Chinese east coast, the Canadian project is more involved with the West Development Strategy (WDS), which is interconnected with the development of industries that are related to the environment, new energies, aviation, automobiles, telecommunications, among others. Therefore, the Canadian government has supported agreements on the cultural industries with China through joint ventures in editorial houses, co-production of movies, television programs, as well as in education and entertainment programs for diverse areas. All of these, backed up by a net of bilateral public and private institutions that work through the diplomatic representations of both countries and by business and academic associations where Chinese ethnic minorities are strongly represented.

The year 1994 signaled a new era of approach between Canada and China, when the new elected Canadian Prime Minister, Jean Chretien, led the first great commercial mission.<sup>iv</sup> He was accompanied by businessmen, 400 of the most important in Canada, representatives of diverse industries and sectors, and the most influential federal and provincial ministers and as well as territorial and municipal leaders. On one hand, the diplomatic bonds were strengthened when the consulate in Guangzhou was opened and the “Four Pillar Stones” policy to China was established taking in count these issues: the economic relation, sustainable development, human rights and good government, and law, peace and security. On the other hand, the commercial linkages went through the same process with the signature of several cooperation agreements and one related to nuclear energy.

From that year on, Chretien visited China five more times:

- Shanghai in 1996 and in 2001 to participate in the APEC reunion.
- In 1998, when he opened a consulate in Chongqing.
- In 2001, after his third reelection, he led the largest mission sent to a foreign country in the

diplomatic history of Canada<sup>v</sup> and the biggest that ever arrived to China. In this trip he consolidated this relationship by the signature of three documents: 1) the Memorandum of understanding between the Commission of Planning for Development and the Chinese Minister of Energy about cooperation in the energy field; 2) a letter of intention on projects of cooperation in environment and climatic change, as well as in legal reforms (legal training), development of the western regions and the Chinese adhesion to the WTO and: 3) a program of student interchange. Moreover, 266 new businesses were signed, valued at an amount that exceeded the 5. 300 Canadian dollars (3, 460 US dollars). Finally, in 2003 he visited China for the last time as the Prime Minister of Canada.

## **What Benefits has the Entrance of China to the WTO Brought to Canada?**

The environment of economic and political collaboration and cooperation given by Ottawa and Beijing since 1994, led to the involvement in several Canadian sectors and industries in the negotiations to allow the Chinese access to the WTO. These, by 1999, concluded with the satisfaction to a good point of the objectives from both parts. The main elements in which the negotiation was based were: fair and no discriminatory treatment to commercial partners, transparency, predictability and the homogeneous rule of law and regulations.

As for the commerce elements regarding tariff reduction, there are:

1. **Automobile parts and motors:** from an average of 21% in 2001 to an 11.5% by 2006. This is of particular interest to the suppliers of GM in Oshawa, that ship parts from GM Shanghai, and for the parts industry as a whole.

2. **Telephone line equipment:** From an average of 13% in 2001 to a 0% by 2004; Nortel and Mitel are especially interested in this reduction.
3. **Malt:** The pre-accession tariff was of 26% and by 2002 it was lowered to 10%. Prairies Barley has a high interest in this.
4. **Paper without cover and carton:** This is most important to the paper industry of British Columbia, Ontario and Quebec. These products had a reduction from an average of 14% in 2001 to 3.5% by 2004.
5. **Frozen shrimp:** This in general was an extraordinary opening measure because of the difference of the averages: from 24% in 2001 to 5% in 2003. Atlantic fishery is one of the companies very interested in this measure.
6. **Whiskey:** This is an important opening measure, most of all to the producers in Quebec, Ontario and Manitoba, which had a tariff reduction of 46%, from 56% in 2001 to 10% by 2005.
7. **Polyethylene:** From an average of 16% in 2001, it will fall to 6.5% by 2008. The Dow plants in Alberta and Ontario benefit from it.
8. **Frozen meat:** It is of particular interest for all of Canada, especially for Alberta, as it will fall to 12% by 2004 from an average of 39% in 2001.

The few import quotas that are left will face a reduction process by January 1<sup>st</sup> 2005. The most important quota reduction for the Canadian industries is the one for wheat, which from 9 millions of tons will change to a 9% tariff in 2006. Furthermore, the USDA estimates that the Chinese market of imported agricultural goods will increase in 2.250 millions of dollars each year for the next decade.

Finally, the Canadian service sector will have also its benefits from the Chinese accession. China has committed to opening its financial and bank services market, including first floor banks, insurance companies, forwards, funds administration, legal services, and telecommunications, as well as other areas that include internal mailing services and distribution chains for sales. A large part of the success in this bilateral relation is due to the foundation that has been built between the two nations that has not only involved diplomatic cooperation among the federal governments, but also at the provincial level. In this way, the visits to China by the Canadian Prime Minister and by other high ranking federal and provincial Canadian administrators were successful, as well as, the reciprocity by their counterparts. The president of the People's Republic of China, Jiang Zemin, the Prime Minister, Zhu Rong ji, and the president of the People's National Congress, Li Peng, visited Canada in various occasions since 1993 with a widespread interest and an open political agenda.

It is important to mention that whatever has been achieved in the bilateral relation up to 1999 is part of a first strategic stage of negotiations and cooperation. It has been linked, since the end of 2001, to the Canadian vision to China for the XXI century based upon three important factors: 1) cooperation and participation in the West Development Strategy (WDS) of China, supported by strategic alliances at different levels and speeds, without ignoring the principal economic development areas of east China; 2) the position of one of the most important suppliers for the Beijing 2008 Olympics and; 3) the commercial relation with the Special Administrated Region of Hong Kong (SARHK). In all these, the Canadian government acknowledges that the Canada China Business Council, the most active Canadian association<sup>vi</sup>, will be the core of the strategy, and therefore, will be very important the role and knowledge of the Chinese ethnic minorities.

## **Perspectives of Cooperation and Business Development Projects with China**

The first important factor in the long term Canadian-Chinese commercial relation is based upon one of the great concerns for the Chinese government that basically consists of lowering the internal regional disparities that have exploded due to the rise of the east coast in the last 10 years. Thus, the West Development Strategy (WDS) has to focus on projects within the areas of infrastructure, transportation, and environment. However, there are also other areas of development and projects that include telecommunication technologies cooperation, bank and financial services, education, cultural industries, and entertainment. Moreover, each one of these areas provides an excellent opportunity for the Canadian business community. Furthermore, each project in which Canadian businesses have been involved is connected with the holistic vision of the Chinese government for the development of its country, in particular of the western region.

In this sense, the infrastructure projects range from the construction of new houses and industrial zones to the actualization of old buildings, always applying environment friendly intelligent systems. Similarly, the construction of infrastructure projects particularly in the transportation field is wide spread, including highways, airports, light trains and trams, and that will connect the cities in the interior and between the regions. It is of importance to mention that, in these plans, the utilization of intelligent technologies and alternative sources of energy, which respond to the same objective of care for the environment, are also favored by the Chinese government.

In order to illustrate the importance of such projects the following table presents information for some projects in the transportation sector. Specifically, it illustrates the type of investment as well as the location of those investments which shows the tendency for the western region. (See Figure 1).

<b>Project</b>	<b>Investment USD in billions.</b>	<b>Destination</b>	<b>Due date</b>
164 civil airports	\$26	Beijing Shanghai Guangzhou Guizhou Yunnan Sichuan Qinghai Xinjiang	2005
Shanghai International Shipping Center	NA	Shanghai	2010
6 ports	NA	Dalian Qinhuangdao Liangyugang Ningbo Wenzhou Shenzhen	2010
Subway net	NA	Northeast Bahía de Bohai Delta del Yangzi	2005
Light train service	NA	Guangzhou Shenzhen Hong Kong	2005
Urban transit services	\$24	Beijing Shanghai Tianjin Guangzhou Kunming Chongqing Nanjing Chengdu Qingdao Dalian Shenyang Shenzhen Changchun Harbin Xi'an	2006 <sup>vii</sup>

FIG. 1

The second factor of importance includes the objective of sponsor “green Olympics”, to take place in Beijing in 2008. Therefore, the Chinese authorities have pursued an emphasis in the construction of residential

infrastructure, transportation and communication with a high technological and environment friendly level tenaciously. These projects related to the 2008 Olympics, consist of a wide range of possibilities for Canadian companies because of the amount of investment placed upon them and the obligation to finish them by that summer. The total investment for the construction of necessary spaces for the Olympics will reach the amount of 2.556 millions of dollars.

Among the new constructions, two of the most important are: the creation of sport facilities and the Olympic village. The first one includes 5 competition places that will need construction work or remaking while 22 need to be constructed. The second will be constructed from cement and will cover a total area of 80 hectares, which will be designed as an ecologic park with the potential for the sustainable development of the place after the Olympics.<sup>viii</sup>

It is important to notice that, just as the village, every construction and design for the Olympic event is thought to be environment friendly. Therefore, the necessity of obtaining specialized technology that allows them to have self-sufficient buildings and transportation media with alternative energy. This is vital to fulfill the general objective of sponsor a “green Olympics”.

The concern about the environment is one of the principal interests of the Chinese government at all levels after reaching high levels of water, air and underground pollution. Some of the measures that are being implemented to counterattack the environmental contamination are focused on the renovation, and in some cases demolition, of old industrial plants and the reduction in water and air contamination by all means necessary. These measures are in accordance with the new Chinese law for environment protection based on international standards and national and local needs.

There are two industries that are also related to the WDS and the “green Olympics” project. One is the automotive industry that represents an area in which China is a potential market, as a consumer and as a producer. After its entry to the WTO, China became a great attraction for international capitals due to the gradual reduction of the geographic limitations and of the foreign investment percentage allowed. The other is the telecommunication industry because technology is a growing and dynamic market, within which the most promising part consists of the mobile communication sector. Although the telecommunication market is highly competitive, Canada has been able to maintain a privileged position. For example, Nortel Networks, JDS Uniphase, Celestica Harris, SRTelecom, Mitel y Nordx/CDT, have been the most successful companies.

Another great opportunity sector is the banking and financial services, which has presented advances due to the liberalization agenda that China has developed. It has allowed foreign banks to offer their services in foreign currencies, with geographic restrictions, to Chinese consumers, while for the local currency such limitations will gradually disappear in the next 5 years.<sup>ix</sup> Similarly, the foreign insurance companies can operate in the country in joint ventures with a maximum of investment of 50%, and they will also lift the geographic restrictions by 2005.<sup>x</sup>

In addition, there is a wide opportunity in the education and entertainment sector for Canadian businesses, which in conjunction with their government have identified a young market that aspires to a university education that is largely unsatisfied by their local and national educational opportunities. Because of the limited capacity of the Chinese universities there has been the rejection of more than 50% of the population that applies to them. Some elements of the strategy to attract this sector of the market has consisted in education fairs overseas, that have been organized by the consulate general and the embassy, as well as the indirect recommendation of the Chinese that are already studying in Canada or have studied there before. These two comprise important decision making factors for the young population that are considering studying in Canada.

In relation with this, there is a great interest that Canada places upon educational interchange because it is largely through it that commercial bonding is created with other countries and is also a way of studying and understanding other cultures. Therefore, there are many programs in this sector in which Canada participates. For example, teaching the English language in China, including using the Internet, and strategically training pilots due to the expansion of the Chinese aviation industry and the Canadian experience on the subject, where there is also fulfilled the Canadian interest in sharing cultural knowledge.

Another way of enhancing these objectives is given by the Canadian incursion in the Chinese cultural industry, principally throughout the production of motion pictures and joint ventures in editorial houses. The first has not yet obtained the expected success, primarily due to lack of investment. However, the second has raised a lot

of expectation because of the emphasis of both countries in the translation of books from Chinese to English and vice versa, particularly children's literature as a principal market.

The third factor, economic and political relations between Canada and Hong Kong, has a history of more than 100 years and has always been characterized as a priority for both governments and for their commercial communities. Thus, the size of immigration that approaches almost 200,000 Canadians settled in Hong Kong is the largest international community in that region of East Asia. Moreover, the Chinese population of Canada represents 20% of the total immigration that it receives, an equivalent of more than 50% of the Hong Kong total population that emigrate.<sup>xi</sup>

This impressive flow of people between both regions has contributed to the construction of cultural and commercial bonds that help consolidate this relationship. This is solidified by the amount of commerce<sup>xii</sup> as well as of investment<sup>xiii</sup>, suggesting that this relation will strengthen with time. The characteristics of Hong Kong, as a market completely self-regulated and of free access to investors and foreign enterprises have influenced Canadian businesses to be even more interested in it and have benefited from their knowledge of the culture and their contacts with its population. In this way, 150 Canadian companies have there their subsidies or representative offices and 450 have joint ventures.<sup>xiv</sup> Therefore, the Chamber of Commerce in Hong Kong is the biggest overseas for Canada and in some of the provinces they maintain some kind of representation in the region, such as Quebec, Alberta, Manitoba and Prince Edward Island.

Similarly, the greatest attraction Hong Kong has to offer to outsiders has always been that it serves as a commerce intermediary between the world and Mainland China. Moreover, it is a key center, because today not only is it an intermediary for China, but also includes the Southeast Asia region. In this sense, the potential in Hong Kong is still undeniable for foreign capitals, having the majority of foreign enterprises arriving there first; making contacts and acquiring cultural knowledge and the necessary experience, in order to then expand to Mainland China. This is precisely the strategy that the Canadian government recommends to small and medium businesses that do not have enough capacity to support the expenses of establishing successfully in China, especially if they have not had some international experience of their products.<sup>xv</sup>

## **Participation of the Chinese Ethnic Minorities in Canada as a Support of its Project of Approach with China**

Canada is a country of immigrants. In the first three decades of the past century almost 25% of the total Canadian population was migrants. The majority were Europeans, not only from Great Britain, but also from center and south Europe. The Asiatic, African and European migration did not become present in an important manner until the 1960's, when it represented 70% of the total male immigration.<sup>xvi</sup> Since that decade and until the beginning of the new millennium, the Asiatic migration has been increasingly rising. As for the migration of ethnic Chinese, it is of importance to take notice that it first began with wealthy families of Hong Kong, Taiwan, Singapore and from other Southeast Asian countries where there is a majority of Chinese ethnic minorities. It is not until recently when migrant flows from Mainland China started to arrive to Canada.

The Canadian migration policies and the multiethnic conformation of the country have allowed the diverse groups that live together in this territory to adapt quickly. Moreover, due to the Canadian state that allows and promotes the association among ethnic minorities, there are associations for the conservation and promotion of specific cultures. They are not the only case, but the major difference between the Chinese community from the Latinos or other groups, is the network that they have built and consolidated among the overseas Chinese, in North America, Europe or Asia.

For cultural and historical reasons, the Chinese communities not only tend to maintain a close relationship between each other at a family level, but also in the extended clan. For this reason in the case of Canada, the number of individuals in these communities has increased and strengthened over time. This is something that it can be seen easily in the principal cities of Canada, but most of all in the province of British Columbia, where there are entire suburbs, such as the Richmond, where the urban signs are in English as well as in Chinese characters.

The Chinese community was about 1.094.700 of a population of 29.639.035 in 2001, 3.7% of the total. The federal and provincial governments have found in this community new “Canadians” that play a central role in understanding and facilitating its strategy towards its relationship with China. An example of the effort to take advantage of the presence of this ethnic minority inside its borders is the creation and consolidation of the Canada China Business Council (CCBC). It is a private sector organization, without capital accumulation objectives, that was created in 1978 to facilitate and promote the foreign commerce and the investment between Canada and the People’s Republic of China.<sup>xvii</sup> Their objectives were: a) to stimulate and support the commerce of goods and services, the investment and the transference of technology, b) to achieve an economic growth and strengthen the relation between both countries, c) to provide practical and punctual assistance in businesses and, d) to be the voice of the Canadian business community in matters related to the Canada-China relationship. Among the sponsoring companies are the: Atomic Energy of Canada Limited, BMO Bank of Montreal, Bombardier, CITIC Canada, Export Development Canada, Nortel Networks Corporation, Power Corporation of Canada and Sun Life Financial.

The Chinese group “China International Trust and Investment Corporation” (CITIC), created by Deng Xiaoping in 1979 as a window to open China to the world, was conceived principally to attract and use foreign investment and introduce advanced technologies. Today, it is a great conglomerate with 44 subsidiaries (banks) in the United States, Canada, Australia, Hong Kong, etc. Their principal businesses include various areas that range from financial and investment industries to the services sector. At the end of 2003 their actives reached the number of 596.630 millions of RMB (people’s currency), with a utility after taxes of 1.600 millions of RMB.<sup>xviii</sup>

The CCBC council is composed by 25 representatives of the public sector especially from the minister of Foreign Affairs. The private sector is represented by the sponsoring companies, by the principal Canadian banks, insurance companies and law firms, as well as by prominent faculty from the most prestigious Canadian and Chinese universities. There are more than 250 companies and Canadian organizations members of the CCBC that are actively involved in the Chinese market and a growing number of Chinese companies interested in doing businesses with Canada. These companies represent sectors, that are quite diverse, such as: agro industry, energy business and manufacture, financial and legal services, and education and health. Each month they release a miscellaneous news bulletin about business opportunities for both sides, including studies and strategic investigations on new sectors, industries, markets and regions to invest and make strategic alliances. This institutional net is supported by the knowledge of these ethnic minorities that helps to strengthen day by day this relation of bilateral cooperation.

## **Challenges for the Canada-Mexico Relation in the XXI Century**

Because of the strong conditions of understanding between Canada and China and their wide and long-term cooperation agreements in strategic sectors, there is a big challenge for the future actions of the Canada-Mexico relation. Since 2000, Mexico has started to suffer the consequences of the recent closeness between the economies of Canada and United States with China.<sup>xix</sup> In the areas of overseas investment and foreign Canadian trade, China has displaced Mexico. The bilateral relation between Canada and Mexico has never been at a better level, nevertheless the one among Canada and China has never been at a better moment as well. The question to analyze here is the foundation of the structure of both relationships and their future.

The year 2004 not only celebrates the 60<sup>th</sup> anniversary of the diplomatic relations between Canada and Mexico, but also denotes the year when China displaced Mexico definitively from the third to the fourth place as a Canadian commercial partner. Mexico represents a strategic partner to Canada and a potential gate into Latin America and the Caribbean, but China represents that same opportunity, but for the rest of east and southeast Asia, where in terms of Gross Domestic Product (GDP) and of volumes of foreign trade the region has shown and maintains a sharp growth in the last 10 years. This means that in all these countries a domestic market of consumers of goods and services has been consolidated and in a much healthier way than in the polarized and increasingly poorer Latin America.

There are areas in the bilateral relation of Canada and Mexico that are really strong and where the prospective is very positive, such as the services sector<sup>xx</sup>. For example, in the case of tourism a million Canadians

visit Mexico each year and 160,000 Mexicans do the same in Canada, representing its third supplier in this area. In terms of migration and residency, the program of agricultural migrant workers (“SWAP”) has reached the amount of 11,000 workers per year. Most likely, more than 50,000 Canadians are Mexican residents and 40,000 Mexicans are under this status in Canada<sup>xxi</sup>. And, finally, with respect to cultural and academic relations, there exist nearly 400 cooperation agreements between universities from both sides. Each year more than 10,000 full time Mexican students enter Canadian universities and 5,000 travel for short courses, which turn Mexico into the third supplier for Canada in this area.

However, there are other sectors that have started to concern Mexicans, given the slowdown of the trade growth rates between Canada and Mexico, but especially because of the weakness in the base of their long term tendencies, as well as by the growing participation of Chinese products in the Mexican market. On one hand, there is the sector of foreign trade of manufactured products, where Canada and Mexico are still strategic partners. Canada maintains its position as the second destination for Mexican exports, which equals 1.8% of the total of Mexican exports for 2003. Similarly, Mexico represents for Canada its fourth export market with 2.1% of the total Canadian exports. Another point to highlight is that the goods being traded vary from the agriculture to automotive, machinery and equipment and other sectors, meaning that this is also a multi-sector relation.

Moreover, Canada has been displaced, from being the fourth commercial partner for Mexico, only after United States, Japan and Germany, to be the fifth, due to the placement of China into the second place. According to data provided by the Secretary of Economy in Mexico, in 2003 the trade with China reached 9.547 millions of dollars, representing 2.8% of the total, while the amount with Canada was 7.124 millions which is 2.1% of the total. It is important to mention that in 1997 China did not even appear among the first ten principal Mexican trading partners.

On the other hand, China not only has displaced Mexico in the Canadian market, but also Japan, that had maintained its position since the beginning of the 1990's. In 1997, Japan was selling Canada 12.550 millions of Canadian dollars, while China only 6.341 millions. This Japanese supremacy lasted until 2001, because by 2002 China had displaced Japan and as a consequence Mexico as well. In this last year, China exported to Canada 15.900 millions of Canadian dollars, representing 4.3% of the Canadian market, meanwhile Mexico only reached the amount of 12.720 millions. In 2003, China exported Canada 13.764 millions of Canadian dollars, 4.3% of the total. Furthermore, the principal Mexican exportation to Canada, automotive products, dropped 17% in the first four months of 2004, while in that same China's industry increased its participation in an 18%.<sup>xxii</sup>

Finally, as for the foreign investment scenario remains positive as Canada keeps investing important amounts in Mexico. In 2001 it was its third major investor, where more than 50% of this investment was designated to manufactures. However, as in the case of foreign trade, this is stagnated since 2000. Mexico received that year the major amount of Canadian investment of 3.871 millions of Canadian dollars, but it decreased to 3.100 millions by 2003 and has not yet increased. China receives a small amount compared with Mexico. In 2000, it only received 565 millions of Canadian dollars, but by 2003 that amount increased to 950 millions, reporting a growing rate of 168% in those years. Another point to highlight is that globally Canada has decreased its investment amounts in North America and Latin America, and has increased them in Asia and East Europe. For example, in 1990 the total invested percentage in America was of 69%, in Europe 23%, Asia 8% and Africa 0.2%. By 2002, the percentages changed. America only received 61%, Europe increased up to 29%, the same with Asia to a 9% and Africa 1%.

In Asia this increment was due to the fact that China and South Korea, in the same twelve-year period, had received almost zero investment and they by then represented a 2% of the total that Canada invest in the continent. The other case is Japan, which went from representing only 13% to 28% in 2002. The European example increased because of Hungary, that represented also almost 0% in 1990 and by 2002 received a 10%, and Ireland that went from 6% to 14% in the same period. As for the Canadian investment in United States, this decreased from 84% to 78% of the total Canadian investments in the continent, whereas in Mexico this has stayed at 1% since 1992.

## Final Considerations

Throughout this study we have illustrated how the bilateral relation with China has become one of the most important to Canada, positioning it as a priority only after the one that it maintains with United States. Similarly, is possible to observe that the Canadian commercial relation with Mexico does not face a deteriorated situation, but it does presents a stagnation since 2000 in percentage terms as well as in growth rates.

Hence, the principal problem facing Mexico is not the lack of trade or investment from Canada, but the decrease of its participation in the total percentage of both. Moreover, China continues on its advance, occupying a percentage portion that becomes larger every time in a short period. China has displaced Mexico as second and third provider of manufactures in United States and Canada respectively, not only in areas such as textiles, toys and shoes, but also in machinery and electronics, as well as in the automotive industry.

The economic reforms implemented in China within the third stage on the second half of the 1990's, have been successful due to the inclusion of new SEZ with innovative integral plans of opening that meant more incentives and benefits for the foreign direct investment. Thus, it also contributed, in part to the increase of the number of subsidiaries and firms from North America, Europe and Asia, which will establish in the diverse regions that China has stipulated for their installation.

An example of this is the recent announcement of the major vehicle manufacture companies such as Toyota, Nissan, GM and Volkswagen to place their industrial assembly plans and innovation and development centers in China, with a total investment estimated at \$13.000 millions of dollars for the next few years, tripling the Chinese annual productive capacity and including approximately 6 millions of automobiles.<sup>xxiii</sup> These actions go along with the desire of the Beijing government to turn China into the most important producer of vehicles in the world for the next decade. (See Figure 2)

Company	Projected investment in millions of dollars	Goal and time
Daimler Chrysler	\$1.200	Until it doubles its capacity
GM	\$3.000	3 years, until it doubles its capacity to 1.3 millions of vehicles per year
VW	\$7.000	Maintain the third of the market that it has currently. <sup>xxiv</sup>

FIG. 2

This presents a problem for the Mexican automotive exports, which has historically benefited in this area as a priority for the Canadian market. Although the current situation does not exhibit an imminent danger that harms this relation, due apparently to the benefits from NAFTA and the geographic proximity, there is early evidence that in the future, the success of the Canadian-China relation will have a negative effect on Mexico, removing it from its old position. The situation becomes complicated even more so due to the fact that China is today the “third producer of cars in the world,<sup>xxv</sup> after Japan and United States and by 2005, the General Motors Corp expects that China take the place of the latter as the most important world producer”.<sup>xxvi</sup>

Another factor that will affect Mexico in such displacement from the list of important bilateral Canadian trade relationships is the integration between the Canadian investments and the last stage of the Chinese project of regional development (WDS). This, has lead the Canadian government and its business community to focus part of their plan for years to come in strategic industries into the western part of China without leaving behind the east coast, where there are the scales economies at regional and industrial levels. The benefits that this represents for the Canadian businesses are very important and cannot be offered by any other market, at least not in this scope, including Mexico.

Perhaps the most worrisome is to take into account that Canada has started to experience a decrease in its exports to United States, its principal commercial partner, having as a consequence two issues. On one hand, its

exports fell for the first time into second place, principally the manufactures due to the increase in the Chinese in 2003. And, on the other, this situation has reinforced the objectives, policies, and actions of the Canadian businesses and government, including their plan of implementing and succeeding in their Chinese strategy for the XXI century, based on the three factors detailed previously, i.e. the implementation of the WDS, the objective of sponsoring a “green Olympics”, and improving the economic and political relations between Canada and Hong Kong, so that it can balance the lost suffered in the north American market.

For these reasons, Mexico urgently needs a reformulation of its plans to retake the lost ground in the United States as well as in Canada, and a reconsideration of the latter in particular and with the region in general. Thus, Mexico needs to not only compete with China, but also with the other emerging potential markets<sup>xxvii</sup> that threaten its position in the continent commercial relations.

Moreover, Mexico needs to face such competition in the political-diplomatic relation, including regions such as Asia and east Europe inside its priorities in the foreign policy agenda, specifically in the commercial area in order to focus its efforts in whichever potential sectors these have to offer. Likewise, these initiatives have to be implemented in conjunction between the public and private sector, with the final objective of creating an integral long term work agenda that allows Mexico to take advantage of all the opportunities for its development. Having information about which sectors and Mexican industries can enter and benefit from the advantages that offer the economic development of these regions, translates into a favorable situation for the creation of a “Team Mexico”, taking into consideration the Canadian and the American scheme, giving it a special emphasis in the small and medium businesses.

Finally, these cannot be implemented without a holistic long-term vision that establishes the beginning of a more competitive and of a wider international scope of the Mexican economy. It must be based upon a larger and better infrastructure, as well as in the attraction of high technology as a priority to allow Mexican industries to escalate in the composition of manufactures, and go from labor to technology and capital intensive.

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## End Notes

- <sup>(i)</sup> Meanwhile the majority of the investment that China has received has been directed towards the creation of new industries and, as a consequence, for the creation of new sources of employment.
- <sup>(ii)</sup> The amounts in dollars are from United States until the contrary is specified. Likely, it is important to take notice that there is a strong difference among the commerce quantities given by the Canadian Statistics Office and the ones from the Mexican one, INEGI. This difference consists basically in that Mexico does not count the costs that are reported on the side of the United States, therefore reporting less than the Canadian data.
- <sup>(iii)</sup> It is important to mention that despite Hong Kong is under the direction of Beijing, designated as a Special Administrated Region, it will not be under the planning of national projects led by the center until 2047. Therefore, it will continue to regulate autonomously and will gradually integrate to Mainland China, allowing it to manage directly its relationship with Canada for the next 43 years.
- <sup>(iv)</sup> The first of great proportions to China of the “*Team Canada*”.
- <sup>(v)</sup> Globalization and Immigration: Canada, China and Beyond. Available at: [www.asiapacific.ca/about/pressreleases/gimmigration.cfm](http://www.asiapacific.ca/about/pressreleases/gimmigration.cfm). May 17, 2001.
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- <sup>(x)</sup> Infoexport- the Canadian Trade Commissioner Service. China and Hong Kong Trade Action Plan 2002. Available at: [http://www.infoexport.gc.ca/docs/cn\\_chhktap02-e.htm](http://www.infoexport.gc.ca/docs/cn_chhktap02-e.htm). April 1, 2002. p. 98.
- <sup>(xi)</sup> Canada - Hong Kong Relations. Available at: [www.dfait-maeci.gc.ca/china/canada\\_hongkong\\_business-en.html](http://www.dfait-maeci.gc.ca/china/canada_hongkong_business-en.html)
- <sup>(xii)</sup> In 2002, Canada exported \$1.206 billions of USD to Hong Kong, and imported \$996.8 billions of USD, giving Canada a surplus of \$209.5 billions of USD.
- <sup>(xiii)</sup> Canadian investments in Hong Kong give a total of \$2.810 billions of USD, while the ones of Hong Kong in Canada reached \$4.983 billions of USD (2002).
- <sup>(xiv)</sup> Canada - Hong Kong Relations. Available at: [www.dfait-maeci.gc.ca/china/canada\\_hongkong\\_business-en.html](http://www.dfait-maeci.gc.ca/china/canada_hongkong_business-en.html)
- <sup>(xv)</sup> Likewise, Canada has succeeded in the attraction of Hong Kong capitals. Chretien assured that this was due basically to the presence of centers of High Technology in British Columbia, particularly in Vancouver, and to the presence of fewer taxes than in the United States, turning Canada as a priority for the Hong Kong businessmen.
- <sup>(xvi)</sup> Study: Why the Earnings of New Immigrants to Canada have Deteriorated over Time. The Daily internet publication. Available at: [www.statcan.ca/Daily/English/040517/d040517a.htm](http://www.statcan.ca/Daily/English/040517/d040517a.htm). May 17, 2004.
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# Determinants of Willingness to Pay for Green Products in Malaysia

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## Abstract

Environmental issue is beginning to attract a lot of attention in Malaysia. However, the attitude of consumers towards some environmental initiatives such as recycling and buying green product is still unknown. Thus, the main objectives of this research are to determine the level of consumer willingness to pay for green products and also to determine the predictors of willingness to pay for green products. Independent variables consist of attitude, lifestyle and personality and income. Dependent variable for this research is willingness to pay for green products. Attitude is measured using 31-items scale, lifestyle (12 items), personality (11 items) and willingness to pay (5-items). A six-point Likert-scale of strongly disagree to strongly agree was utilized. Questionnaires were distributed to 224 respondents and 200 responses were returned (89% response rate) fully completed for analysis. Results show that the level of willingness to pay for green products is high (70%). Consequently, regression result shows that attitude, personality and income are significant predictors ( $R^2=0.55$ ) for willingness to pay for green products. Discussion and recommendation are discussed.

## Introduction

Environmental issues influence all human activities thus it is gaining significant attention from customers, marketers and governments alike. Green Society today has become more concerned with the natural environment, especially business has begun to modify their behavior in an attempt to address society's new concern (Polonsky, 1994). This evolution has resulted in an expanded issues concerning environmental responsibility. Straughan and Roberts (1999) mentioned that with the increased of social and political pressure, companies have moved beyond simply addressing pollution and waste disposal but also looking for alternative package composition and design, alternative products formulations and cause-related promotion in an effort to keep in step with the environmental movement.

The concern for the environment has led to increased demand for "green products" or eco-labeled products which address environmental issues through product design and innovation (Chen, 2001). Producers and marketers such as Bodyshop is known to be an environmentalist by producing cosmetic and toiletries which are environmentally-friendly to consumers. Similarly, McDonald and Xerox did some alteration to their end products so as to be more environmental friendly to consumer. Eco-labeling programs are flourishing in food industries worldwide where one can find eco-labeling programs that deal with the production of environmentally sound fruits, vegetables and milk (Maria, Jill and Ron, 2002).

### **'Ecologically Concerned' Attitude**

By definition, the ecologically concerned consumer's attitude must express concern for ecology (Kinnear, Taylor, and Ahmed 1974). The impact of ecological concern on consumption and voting behavior has frequently been assessed (Balderjahn 1988; Crosby, Gill and Taylor 1981; Crosby and Taylor 1982, 1983; Henion 1976; Kassarijian 1971; Kinnear and Taylor 1973). Researcher indicates that ecological concern is related to but not highly correlated with consumption behavior.

From the consumers perspective, academic research on consumer awareness and concern for environmental issues had been conducted elsewhere ( Straughan and Roberts, 1999; Sanjuan et al 2003, Schlegelmilch et al. 1996; Polonsky1994, etc). Schlegelmilch et al (1996) investigate the link between green purchasing decisions and environmental consciousness. Their findings suggest that attitudes are the most consistent predictor of purchasing decisions. Straughan and Roberts (1999) found that the factors that predict ecologically conscious consumer behavior (attitude) are perceived consumer effectiveness and environmental concern beliefs.

Additionally, attitude toward pollution has been found to affect one's attitude toward ecologically conscious living (Balderjahn 1988). Suggestion that those who are genuinely concerned about pollution is inclined to take measures to circumvent further pollution. Balderjahn (1988) also found that those who have a positive attitude towards ecologically conscious living participated in ecological buying and consuming of products. Attitudes have likewise served as predictors of energy conservation behavior, environmental concern, and recycling.

It is also likely that one's perception of the pollution problem could have a bearing on one's attitude toward pollution. Crosby, Gill, and a Taylor (1981) found that an individual concern with beverage containers contribution to pollution and litter had a strong positive relationship to one's ecological concern. However, they found little association between concern with litter and the purchase of returnable containers. Therefore, those who believe there is a solid waste disposal problem are likely to be more concern about pollution than those who do not, and vice versa.

Finally, the extent to which the consumer believes he or she can be effective in pollution abatement is considered to be a predictor of the ecologically concerned consumer (Kinneer, Taylor, and Ahmed 1974; Webster 1975). The ecologically concerned consumer believes in the power of the individuals, the more he or she will buy and use nonpolluting products (Balderjahn, 1988).

#### **'Green' Personality**

Studies on personality have been conducted by most environment researcher. The purpose is to study and to describe what type of personality for green consumer. Kinneer, Taylor and Ahmed (1974) found that personality variables to be better predictors of ecologically concerned consumers than socioeconomic variables.

Most of the studies on personality stresses on certain aspects such as alienation, dogmatism, personal competence, conservatism. For example Anderson and Cunningham (1972) measures alienation, dogmatism, personal competence status consciousness, cosmopolitanism and conservatism. Webster, (1975) measures personality by looking at dominance, tolerance socialization and responsibility.

Anderson, Henion and Cox (1974) found positive correlation between personality with regard to pollution, ecological concern and ecological scale. However, Balderjahn (1988) argues that this result is sometimes inconsistent for specific pro-environmental behaviors, such as green purchasing decisions. Webster (1975) added that personality variables have been shown to explain only a small part of the total variability of the behavioral measures used. Hooley and Saunders (1993) also suggest that caution should be taken in using personality variables for market segmentation.

#### **'Green' Lifestyle**

Logically, consumers buy green products to help the environment but more so as a mean to improve their living in general (Lambert, 1996). Sometimes lifestyle does affect our buying behavior. Research conducted in Spain by Sanjuan, et al. (2003) on willingness to pay for organic products has shown that lifestyles are summarized into three factors: natural food consumption, life equilibrium and health concern. Lifestyle accounted for 53% of the total variance in willingness to pay.

#### **Willingness to Pay**

In spite of the high claims in America that the majority of consumers are environmentalist (Donaton and Fitzgerald, 1992; Ottman 1992; Schlossberg, 1991; Schwartz and Miller, Gutfield, 1991), there are concerns among retailers who reported slumping sales for 'green' goods such as paper products (International Wildlife, 1992). Ironically, in a new survey conducted in 2003, findings show that 87% of the American polls are willing to pay more for green home features. Sanjuan et al (2003) contribute to the present field of research by indicating that neither consumers nor retailers, even those whose attitudes could favor organic consumption and distribution, are willing to pay higher prices for organic green product.

There are differences between environmentally-friendly products (green products) and other related products. According to Maria et al. (2002), these environmentally-friendly products have an unobservable quality attributes, which make them fundamentally different from other products. This makes the products more expensive than others. Sadly, not many consumers are willing to pay more for green products.

Conversely, researches have indicated that the level of willingness to pay more for services or products is high and related positively to matters that involve closely to health, safety and quality (Donovan, 2004; Krystallis, Arvanitoyannis and Kapirti, 2003). In many cases, consumers are willing to pay more for product which are well

described to them and contribute something to their health. For example, Huang et al (1999) found that Taiwan families with members suffering from a chronic disease and family with higher incomes are more likely to pay a premium for hydroponically grown vegetables, which are free of pesticides residues.

#### **Income**

Previous researches have found that consumers with higher and stable incomes are likely to purchase high quality products and willing to pay more for green products. Huang, Kan, and Fu (1999) studied consumers' response to hydroponically grown vegetables, which are free of pesticide residues in Taiwan. They concluded that families with members suffering from a chronic disease and families with higher incomes are more likely to pay a premium for hydroponically grown vegetables.

Govindasamy and Italia (1998) compared consumers' response towards traditional and an integrated pest management products. They found that consumers with higher annual incomes are more likely to express an interest in purchasing an integrated management products and less likely to strictly purchase a conventional products.

Based on the above discussion, it seems like there is still lack of research on environmental consciousness among the Malaysian consumers compared to the Western countries. The Malaysian scenario for green marketing is not too encouraging where not many manufacturers are eager to market green products. Only government and a few NGOs show some effort by doing an informative advertisement to show the importance of being responsible to the environment. Thus, this study attempt to pursue the following objectives: (1) to determine the level of consumer willingness to pay for green products in Malaysia. and (2) to examine which factor contribute to the willingness to pay for green products (personality, lifestyle, attitude, income).

## **Methodology**

### **Survey Instrument**

Attitude is measured using 31-items which is a combination and modification from Roberts (1996) and Schwepker and Cornwell (1991), to tap ecological conscious consumer behavior (ECCB). All items were measured with Likert scale anchored with "strongly agree" (6) and "strongly disagree" (1). These scales attempted to capture the following constructs: one's attitude toward litter (AL), perception on pollution (PP) and attitude towards ecologically conscious living (AECL). Ecologically-inclined lifestyle is measured using a 12-item statements adapted and modified from Value Added lifestyles (VALS) measure (SRIC-BI, 2003). Personality is measured using a 11-item statements based on sociability and conscientiousness factors of the big-five personality factors modified to suit environment conscious personality (Hogan, 1991). Willingness to pay for green products is measured using a 5-item statements adapted from Schwepker and Cornwell (1991).

### **Samples**

The respondents for this study are lecturers at a university in Malaysia. A total of 224 questionnaires were distributed to the lecturers selected using systematic random sampling. 200 responses were collected back representing about 89% response rate.

## **Findings**

Table 1 presents the demographic profile of the respondents. The sample consists of equal number of male and female respondents whilst ethnically they are mainly Malay (90%). Their mean age is 31 with an average monthly income of over RM3,000.

TABLE 1: PROFILE OF RESPONDENT

Variable		Number	Valid Percent (N=200) in %
<b>Gender</b>	Male	101	50.5
	Female	99	49.5
<b>Race</b>	Malay	190	95.0
	Chinese	6	3.0
	Indian	4	2.0
<b>Status</b>	Single	52	25.5
	Married	146	73
	Divorced	3	1.5
<b>Education</b>	Masters	187	93.5
	PhD	13	6.5
<b>Position</b>	Lecturer	182	91.5
	Senior lecturer	3	1.5
	Associate Professor	15	7.5
<b>Number of children</b> Mean=1.47	0	92	46
	1-3	72	36
	4-6	33	16.5
	7-9	3	3
<b>Age</b> Mean=31	25-29	114	57
	30-34	58	29
	35-39	17	8.5
	40-44	5	2.5
	45-50	6	3
<b>Income</b> Mean=RM3228	RM2000 - 4000	191	95.5
	RM5000-7000	6	3
	RM8000-10000	3	1.5

**Descriptive Statistics of All Item Statements**

The mean and the standard deviation scores for all individual statements are shown in Table 2.

TABLE 2: QUESTIONNAIRE ITEMS

	Statements	Mean	Standard Deviation
<b>Attitude (Independent Variable)</b>			
1	I am concern with the amount of pollution in my city	5.03	0.86
2	Seeing litter in streets and parks bothers me	5.06	1.16
3	Seeing someone litters upsets me	4.92	1.01
4	I always ignore people when I see them littering in front of me ®	3.95	1.18
5	Littering campaign done by the government does not effect me at all ®	4.31	1.38
6	I don't see why we have to take littering as an important issue ®	5.45	0.91
7	It is normal for anyone to litter ®	5.10	1.15
8	It is ok if you forget to throw your rubbish in the area given by the authority ®	5.04	1.19
9	I always advise kids to avoid littering	4.87	1.29
10	I don't mind picking up rubbish and throw it in the right place	4.26	1.30
11	When I buy products, I try to consider how my use of them will affect the environment and other consumer	3.71	1.19
12	Whenever possible, I buy products which I consider environmentally safe	4.23	1.05
13	I recycle whenever possible	3.91	1.11
14	I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	3.72	0.97

15	I will not buy products which have excessive packaging.	3.47	1.12
16	When there is a choice, I always choose the products which contribute to the least amount of pollution.	4.26	1.17
17	If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	4.64	1.10
18	I have switched products for ecological reasons.	4.05	1.12
19	I use recycling center or in some way recycle some of my household trash.	3.42	1.23
20	I make every effort to buy paper products made from recycled paper.	3.52	1.13
21	I used low in chemicals detergent for my laundry.	3.83	1.10
22	I have convinced members of my family or friends not to buy some products which are harmful to the environment.	3.64	1.06
23	I have purchased products because they cause less pollution.	3.87	1.07
26	I always read whether the toilet paper is made from recycle paper or not before buying it.	3.01	1.21
27	I always make sure that I buy products in a biodegradable package.	3.54	0.97
28	I always make sure that I reused all the plastics bags from the previous shopping.	4.67	1.13
29	I don't care if I don't throw the tins and the bottles at the recycle bin.®	4.56	1.22
30	I don't mind if there is no recycle bin provided by the authority at my area.®.	4.72	1.08
31	I like the idea of different recycle bin for different products.	4.79	1.35
<b>Lifestyle (Independent Variable 2)</b>			
1	I always joined outdoor gathering with friends and family.	4.68	1.14
2	I love to make things I can use everyday.	4.39	1.12
3	I follow the latest trends and fashion.	3.15	1.19
4	I like outdoor activities.	4.36	1.27
5	I am really particular at things that I buy.	3.47	1.19
6	I consider myself as intellectual.	4.45	0.98
7	I like trying new things.	4.36	1.01
8	I would like to understand more about how the universe works.	4.55	0.86
9	I like buying leather products.	4.57	1.27
10	I like gardening. It is my routine activities.	4.24	1.42
11	I never bring my own bags to the supermarket.	2.86	1.28
12	I don't care about other opinion as long I am happy.	4.40	1.28
<b>Personality (Independent Variable3)</b>			
1	I am very tidy person. I don't like messy place.	4.71	1.11
2	I always make sure that my office is always clean before I leave the room.	4.42	1.14
3	I don't mind if the public toilet is dirty. We are not going to use it everyday.®	5.53	0.99
4	No matter how dirty my car is, I only wash it whenever I am free.®	3.90	1.53
5	I always cook my own meal, rather than eating out to ensure that the food is really clean.	3.97	1.43
6	I don't like to be in a crowded area or space (concert or supermarket)®.	2.72	1.43
7	Once in a while, I like to spend my holiday away from the city.	5.11	0.92
8	I will make sure that there is always trees and flowers around my house.	4.59	1.19
9	I prefer fresh flowers rather than substitute flowers.	4.90	1.08
10	I enjoy hearing the sound of the nature (singing birds, running water from the lake).	3.52	1.73
11	I don't like pets around my house.®.	3.49	1.73
<b>Willingness to pay (Dependent Variable)</b>			
1	I am willing to pay more for any products that are safe to the environment.	4.27	1.10
2	I am willing to pay more for any environmentally-friendly products although they are much more expensive then their substitute products.	4.17	1.05

	(E.g. cosmetics, Body Shop).		
3	I am willing to pay more for any products in a biodegradable packaged before buying similar products in a non-biodegradable package. (E.g. washing powder in box).	4.06	1.07
4	I am willing to pay more for any products in a recyclable package before buying the same products in a package which is not recyclable.(E.g. cans vs. polystyrene food container).	3.92	1.07
5	I am willing to pay more for any products in larger amount to reduce the buying frequency.	4.23	1.15

Table 3 presents the descriptive statistics for each dependent and independent variable after computation.

**TABLE 3: DESCRIPTIVE STATISTICS MEASURE**

Variable type	N	No. of Item	Minimum score	Maximum score	Actual study Means (SD) N=200
<b>Dependent:</b>					
Y = Willingness to pay	200	5	2.00	6.0	4.1(0.95)
<b>Independent:</b>					
X1 = attitude	200	31	2.61	5.61	4.2(0.56)
X2 = lifestyle	200	12	1.75	5.58	4.1(0.63)
X3 = personality	200	11	3.00	5.55	4.4(0.58)
X4 = income	200	1	2000	10,000	3228(1031.38)

#### Reliability of the Study

Table 4 shows the outcome of the pilot and the actual reliability test results. Cronbach alpha for all variables are well above the acceptable threshold suggested by Nunnally (1967).

**TABLE 4: RELIABILITY OF THE VARIABLES**

Variable	No. of Item	Alpha Coefficient (pilot) N=27	Alpha Coefficient (actual) N=200
<b>Dependent variable:</b>			
Y1 = Willingness to pay	5	0.96	0.92
<b>Independent variable:</b>			
X1 = Attitude	31	0.84	0.89
X2 = Personality	11	0.89	0.77
X3 = Lifestyle	12	0.75	0.64

#### The Level of Willingness to Pay for Green Products

To determine the level of consumers' willingness to pay for green products, the percentage of consumers who are willing to pay more for green products are computed based on willingness to pay for safer product, substitute product, biodegradable and recyclable products and the results are shown in Table 5. The average level of consumer's willingness to pay for green product is 71%.

**TABLE 5: THE LEVEL OF WILLINGNESS TO PAY FOR GREEN PRODUCT**

Items in Questionnaire	Respondent	
	Agree (%)	Disagree (%)
1. Safe	77	23
2. Substitute	73.5	26.5
3. Biodegradable	69	31
4. Recyclable	63	37
<b>Average</b>	<b>70.6</b>	<b>29.4</b>

### Correlation Result

Table 6 shows the correlation result for all variables. The correlation coefficient (r) shows significant positive correlation between willingness to pay and attitude and lifestyle but not with personality.

TABLE 6: CORRELATION RESULTS

Variable	Y	X1	X2	X3	X4
<b>Y = Willingness to pay</b>	1.00				
<b>Independent</b>					
<b>X1:attitude</b>	0.687*	1.00			
<b>X2:lifestyle</b>	0.199*	0.504*	1.00		
<b>X3:personality</b>	-0.031	0.304*	0.638*	1.00	
<b>X4:income</b>	0.16*	0.073	0.145*	0.098	1.00

\*\* Correlation is significant at the 0.001 level (2-tailed)  
\* Correlation is significant at the 0.01 level (2-tailed)

The overall correlation results in table 6 indicate that the variables are not highly correlated (ranging from r = 0.199 to 0.687).

### Multiple Regression Results

The regression result in table 7 indicates that 3 variables (ecological conscious attitude, personality and income) are found to be significant predictors of willingness to pay for green products. The variance inflation factor (VIF) indicates collinearity assumptions are fulfilled.

TABLE 7: REGRESSION RESULTS

Variables	Regression coefficients (B)	t-value	Sig. t	VIF
<b>Constant</b>	0.31	0.71	0.48	
<b>Attitude</b>	1.31	14.08	0.001	1.34
<b>Personality</b>	-0.40	-3.95	0.001	1.68
<b>Income</b>	0.00	2.71	0.01	1.02
<b>Lifestyle</b>	-0.08	-0.06	0.42	2.07

R<sup>2</sup>=0.553, F=60.35, p<0.001, df=199

Predictors: (Constant), income, attitude, personality and lifestyle

Dependent Variable: willingness to pay.

Table 8 shows three of the independent variables are entered into the stepwise regression equation: attitude, personality and income. Attitude explains 47.2%, personality explains 6.4%, and income explains 2% of the variance in willingness to pay respectively.

TABLE 8: STEPWISE REGRESSION RESULTS

Variables	B	R <sup>2</sup>	RA	Adjusted R <sup>2</sup>	t	Sig. t	VIF
<b>Constant</b>	0.32				0.73	0.48	
<b>Attitude</b>	1.28	0.472	0.472	0.47	15.15	0.001	1.104
<b>Personality</b>	-0.45	0.536	0.064	0.53	-5.46	0.001	1.109
<b>Income</b>	0.00	0.552	0.016	0.55	2.65	0.01	1.012

F=80.39, p<0.001, df=199

## Discussion and Recommendation

This study identifies three variables that predict willingness to pay for green product: attitude, personality and income. Attitude seems to predict willingness to pay for green products. This finding suggests that someone who is concerned about the environment, are likely to be proactive or contribute most of their efforts to the purchase of green products. Balderjahn (1988) also found that those who have a positive attitude towards ecologically conscious living participated in ecological buying and consuming green products environment.

There is a significant inverse relationship between personality and willingness to pay for green products. This negative relationship means that although their personality is great (neat person, active or even very playful), the tendency to buy green products is still low. Accordingly we can conclude that consumers with negative personality are more willing to pay for green product. Possibly, the consumers in Malaysia are indifferent or uncomplaining to the cleanliness of some of the public facilities provided, even though they themselves are tidy people. Furthermore, the knowledge on green products among Malaysian consumer is still new. Not many of them will buy green products because their price is far more expensive than other products in the market regardless of the personality they have. This result contradicts earlier findings by Anderson et al, (1974) who found positive relationship between personality and ecologically conscious attitude. Furthermore, inconsistency and caution were suggested by earlier researchers regarding the treatment of personality measures (Balderjahn, 1988; Webster, 1975; and Hooley and Saunders (1993).

Income to some extent is related significantly to willingness to pay for green products. This is proven when consumers with stable income are willing to pay for green products. Since green products are generally more expensive than normal goods, it is logical that only those with high income are willing to pay for these expensive green products.

Although the level of willingness to pay for green product has been found to be high (70%), however, more research should be conducted to determine whether those who are willing to pay would actually purchase green product. The level of awareness of consumers towards ecologically concerned attitude could be enhanced by marketers, non-government organizations (NGOs) and government to promote green marketing. Marketers should take into consideration the attitude of consumers and income when designing and marketing green products. Cheaper versions of green product are preferred in order to encourage the consumers to consume green products.

This study indicates that the level of willingness to purchase green product is quite high among Malaysians. The three determinants of the willingness to pay for green product are income, attitude and personality.

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## Environmental Regulation in East Asia's Special Economic Zones

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### Abstract

The problem this conference paper addresses is whether environmental regulation in East Asia's Special Economic Zones (SEZs) has been compromised by economic policies favouring rapid industrialization through foreign investment and export-oriented production and, to the extent that such environmental regulation has been compromised, to consider viable reforms that could be pursued to reduce the environmental impact of the SEZs. Over recent decades, China, Taiwan, South Korea, and other newly industrializing economies in East Asia have designated special areas for foreign investment and export production to which have been conceded favourable investment and trade conditions, and often exemption from certain kinds of regulation. The synergistic effects of high urbanization, rapid population growth and intensification of land use have created some severe environmental problems in East Asia's industrializing cities.

What do such conditions imply about the state of environmental regulation in the region? At first glance, most countries in East Asia have amassed sizeable collections of environmental laws and policies, often borrowing from leading Western precedents. But, in practice, these laws and policies have often not been effectively implemented. Is this general deficiency applicable to environmental regulation within the SEZs? The experience of East Asia's SEZs – particularly in China – suggests we need to re-think how we conceptualise the relationships between environmental law and foreign investment in the context of rapidly industrializing developing countries. Though a cursory look might suggest that SEZs are hot-spots for environmental mismanagement, these industrializing precincts have also pioneered some notable environmental policy reforms. Environmental regulation in China's Shenzhen SEZ, for example, tends to be stricter than in other parts of China's economy that have been shielded from the full brunt of industrial transformation. In many cases, the presence of substantial foreign investment has contributed to improvements in environmental law through the infusion of advanced environmental technologies and corporate environmental management systems. Indeed, solutions to East Asian environmental regulatory weaknesses may well reside in the areas most open to the market. They offer an arena where experiments can be conducted in environmental law and new regulatory techniques tested. Some environmental management advantages may ensue from the East Asia's growing engagement with the international market, which can offer environmental technologies, management techniques and financial resources not readily available domestically.

### East Asia's Industrial Transformation and Its Environmental Consequences

East Asia – stretching from Korea to Indonesia – contains many newly industrializing countries. They have similar economic ambitions, but differ considerably in their history, geography, demography, ethnicity, political ideology and level of economic progression. Despite their diversity, the state has played a pivotal role in the economic transformation of all. Economic policy has emphasized industrialization and quick economic growth. East Asian governments have accepted primary stewardship of growth and given it higher priority than their Western counterparts. It has been estimated that while it took the West some 400 hundred years to achieve a tenfold increase in per capita income, South Korea and Taiwan bolted to the same gain in merely 50 years (Dowling, 1997). Foreign direct investment (FDI) and international trade have been seminal elements in both types of economic strategies. From some US\$46 billion in FDI flows per year to developing countries over 1988-1993, this grew to over US\$240 billion annually by 2000 (UNCTAD, 2001).

Underpinning the economic transformation of East Asia has been the “developmental state” (Brodsgaard & Young, 2001). East Asia's economic “miracle” has not been a serendipitous consequence of a conflation of various market forces, but a result of specific economic policies and active intervention by governments. Unlike the earlier 19<sup>th</sup> century *laissez-faire* traditions of the West, state involvement in East Asia began not in the liberal mould of detached market regulation, but deep involvement in capital allocation and the restructuring of markets. After their independence, most postcolonial administrations in the region nationalized foreign companies, set up numerous state enterprises, and launched ambitious national development plans. Since the early 1980s, in line with global trends,

East Asian economies have been increasingly deregulated (Haque, 1998; Bernard, 1996). There has been a concerted effort to dilute central economic planning and state economic monopolies through a market-driven model based on neo-liberal assumptions such as rational individual choice, minimal state, market competition and efficiency, and free trade. The role of governments in the region has thus moved, but not entirely, from interventionist, nation-building activities, to being a facilitator of market forces in which the private sector plays the hegemonic role. One aspect of economic policy that survived virtually unscathed from this period was the SEZs.

## **Emergence of the Special Economic Zones**

A central component of the economic governance of East Asia is the special economic zone (Rondinelli, 1987). Taiwan and South Korea established Asia's first export processing zones in the mid-1960s. Special economic zones are geographically or juridically bounded areas designated by governments for foreign investment and export-oriented industrialization, to which are conceded favourable investment and trade conditions, and reduced red-tape. They have been established as windows for foreign investment and technology, to thereby act as catalysts for the modernization and growth of domestic economies (Vuoristo, 1994). There is a diversity of SEZs, which reflect different philosophies, objectives, and means of achieving them. This is evident by their nomenclature, which includes such various descriptions as free trade zones, export processing zones and technology development zones. Depending on the particular SEZ model adopted, the "specialness" of the zones stems from their subsidized physical infrastructure, favourable investment and trade conditions such as lower taxes and duty-free import of manufacturing equipment, and often exemption from certain kinds of regulation such as controls on project developments. Special economic production zones are intended to encourage companies to locate there to take advantage of the promised lower costs of production. In turn, the SEZs can benefit host countries through employment growth, poverty reduction, introduction of advanced technologies and foreign exchange earnings (Mutti, 2004).

In the 1980s, the Chinese Communist Party (CCP) took an active interest in SEZs, and decided to establish SEZs as discrete "laboratories for innovative domestic economic reforms" (Crane, 1990: 3), undertaken on an experimental basis in order to minimize potential wider social unrest and political conflict. Presently, China has the most extensive array of SEZs in East Asia – indeed, in the whole world. In the early 1980s, the CCP designated four SEZs, at Shenzhen, Shantou and Zhuhai in Guangdong Province, and Xiamen in Fujian Province. In 1984, Hainan Island was opened as the fifth SEZ. These flagship zones would eventually become the catalysts of modernization of the Chinese economy. In 1984, "open door" economic privileges were also offered to fourteen coastal cities. In 1985, the concept of open cities was expanded to "open regions", and a number of open coastal areas were proclaimed, mainly along the Yangtze River delta and the Pearl River delta. Today, the range of development zones in China is quite staggering; by 2003, there were estimated to be an astonishing 3,837 development zones in all (Yan, 2004).

Special economic zones and concomitant market stimulants have been introduced in other industrializing East Asian nations. Virtually all countries have pursued market deregulation policies in relation to trade, investment, capital flow, and exchange rate. Special economic zones were pioneered in the region by Taiwan and South Korea. Taiwan's first export-processing zone was set-up in Chien-Jiang, Kaohsiung City, followed by more zones opened in Nantze and Taichung in 1969 (UNIDO, 2002: 122). South Korea organized special industrial parks and export processing zones in the 1960s and 1970s to promote the advancement of laggard regions and thereby achieve a more decentralized pattern of development in areas away from Seoul, which had the lion's share of investment (Kim & Gallent, 1997). The first industrial parks for export production were set up in Ulsan in 1962 and Kuro in 1965. A late industrializing economy, Vietnam has also begun to authorize some SEZs in coastal and border areas to stimulate investment and economic growth, along with other policy reforms to lure foreign investment (UNCTAD, 2000: 113-15). Vietnam initially designated three SEZs: in Hai Phong city, the Chu Lai area of Quang Nam Province, and the Can Gio area of Ho Chi Minh city. Each SEZ is supervised by an Economic Zone Management Authority. Thailand is also using the SEZ model, and has designated several SEZs along its borders with Laos and Cambodia. Thailand's Investment Promotion Act 1977 provides various tax and non-tax incentives for both local

and foreign investors in areas promoted by the government. In addition, the Industrial Estate Authority of Thailand administers some 30 industrial estates, and a variety of financial incentives and market privileges are offered to companies accepted for investment in the industrial estates. Malaysia established its first SEZ in 1971 pursuant to the Free Trade Zone Act 1970 passed to entice export-oriented FDI (Warr, 1987). Presently, Malaysia's SEZs are regulated through the Free Zones Act 1990, which provides companies operating in the zones with reduced import and export procedural controls and customs concessions. The Philippine Special Economic Zone Act 1995 provides for the creation of "ecozones", offering tax holidays and other fiscal incentives, and superior transport and related service infrastructure, with the mission of accelerating employment generation and new investment. The Philippines has established some 75 ecozones to date (Mejia, 2003: 488). It set up the Philippines Economic Zone Authority in 1995 to coordinate the inflow of new FDI into the zones, with separate authorities for the Subic Bay and Clark free trade zones established on the sites on the former United States military bases.

East Asia's orgy of economic growth and industrialization has wrought extensive social and environmental changes. Studies sponsored by the World Bank, United Nations and other organisations offer some insights into the extent and severity of environmental problems in East Asia (Economic and Social Commission for Asia and the Pacific, 2000). The environmental transformation of East Asia's cities is also associated with urbanization and the emergence of mass consumption. Environmental conditions in some SEZs have attracted harsh criticism from media commentators. McElligott (1996) has lambasted: "in the Special Economic Zones located in southern China, ecology takes a back seat to profit in a country struggling to develop an industry with few financial resources". Similarly, Tester (1995) depicts China's SEZs as "an ecological disaster the likes of which the planet has never seen; the result of firing this modern industrial revolution with soft coal, of filling in thousands of hectares of rice paddies to make way for roads, homes and factories, of moving whole mountains in the process, of creating air, water and soil pollution problems that, by all reports, are the worst on the planet". However, other research suggests that environmental conditions in the SEZs are no worse than other areas, and indeed may be superior owing to the greater availability of pollution control technologies from foreign investors, as well as the more systematic land use planning in the zones (World Bank, 1992). But the intensive scale of development in the SEZs has tended to entail higher energy and resource demands than usual. The Asian Development Bank's (2001: 31) environmental survey reported "careful spatial planning and management of industrial activity" in the SEZs of the Philippines had helped minimize potential environmental effects. By contrast, Vietnam's SEZs are under environmental crisis, owing principally to extensive water and air pollution from their industrial enterprises.

## **Environmental Law in East Asia – the Path to Legal Modernization**

Throughout East Asia, environmental law and policy has ostensibly begun to reach maturity, manifested by extensive legislative initiatives, judicial activism and a consequential environmental jurisprudence, and the founding of environmental management agencies. Governments are modernizing their environmental management regimes to give effect to principles of sustainable development (Subedi, 2002). East Asian environmental policy-makers faced with the daunting task of devising and implementing effective regulatory regimes for their industrializing economies, "have at least one advantage over their historical counterparts in the West – they have several decades of environmental regulatory history to learn from" (Blackman & Harrington, 2000: 5). So far, the most advanced reforms have been pioneered in Singapore and Taiwan, while Thailand, Indonesia and Vietnam have among the least developed environmental legislation.

The plethora of environmental laws, institutions and policies governing East Asia's SEZs and other economic sectors masks a variety of structural weaknesses in the capacity of their legal systems to promote sustainable development. While Asian states have nearly all produced a substantial volume of environmental legislation, they have differed "in their ability to build more effective public sector environmental agencies that ha[ve] the legal authority and the tools to effectively monitor and enforce emission and ambient standards" (Rock, 2002: 96). According to the Asian Development Bank's *Asian Environment Outlook* report, "the root cause of the poor state of the environment in the region was a failure of policy and of institutions" (ADB, 2001: xv).

Environmental law regimes are unlikely to succeed unless anchored to wider reforms to promote good governance and rule of law. Law acquires its meaning and performs its social functions through processes of implementation and enforcement, without which it has little life in any given society. Heavy reliance on centralized, bureaucratic decision-making that excludes civil society, incompetent and corrupt administrative officials and judges, and limitations on access to justice, all undermine to various degrees the ability of East Asian governments to implement environmental policies and laws to address the effects of rapid industrialization. While some countries have made substantial progress in addressing these encumbrances, there has been a tendency for some states to naively import foreign precedents incompatible with local institutional and social conditions (Legrand, 1997: 119). Some measure of rule of law would seem to be a necessary precondition to effective environmental law. The notion of rule of law is a contested concept with various definitions and visions. Raz (1979) believed that at a minimum law must be able to guide behaviour. Peerenboom (2004: 2) has suggested “law [must be] able to impose meaningful restraints on the state”. Concepts of the rule of law have been criticised as narrowly reflecting a Western, liberal democratic tradition that is not necessarily germane to the circumstances of East Asia or other developing country regions (Dyzenhaus, 2000). Critical legal scholars, critical race theorists and feminists have shown that the seeming neutrality of the rule of law can reinforce existing power relations at the expense of certain vulnerable groups of the society (Unger, 1976; Mackinnon, 1989). The failure of the “law and development” movement of the 1960s and 1970s – a program and discourse for legal technical assistance and reform, as part of Western development aid programs – shattered the naïve belief that if laws are reformed and legal institutions strengthened, nothing can restrain the “rule of law’s” triumph. The law and development movement has re-emerged in a new guise recent decades, through the “New Public Management” and “Good Governance” prescriptions recited by the international development assistance community (Demmers, et al, 2004).

The pressures for legal reform in East Asia are growing as its members open their economies to global market forces and address the environmental problems of industrialization. Traditional rules, norms, standards alone may not be conducive to addressing the policy challenges. The development of modern economies has required the replacement of closed political and bureaucratic dealings with “rational” legal instruments. This entails improved legislative drafting, coordination and dissemination, restraints on the discretionary powers of bureaucrats, more independent and competent judiciary, and effective enforcement mechanisms. To be sustainable, however, legal reforms have to find sustenance in the markets and civil societies they purport to govern. Wang (2002: 28) warns that, “law becomes effective by social forces and pressures interested in and working for its implementation. Without a property institutional setting, the law will remain a fig-leaf, pretending action without changing social reality”.

It is possible to conceive of rule of law reforms without necessarily sacrificing local culture and institutions. Peerenboom, 2004: 3-6) argues that by differentiating between a “thin” and “thick” conception of the rule law, the core, universally valid elements of an effective legal system can be isolated without necessarily importing certain discourses about political morality. A thin conception embodies the functional or instrumental aspects of the rule of law – any legal system that is effective must have these elements – such as the existence of courts to interpret laws, laws made public, laws generally applicable, laws that are clear, consistent and stable, and laws that are enforced and accepted by most people. These minimal requirements of rule of law are surely compatible with considerable diversity of institutions, rules and practices in any given society. A thick conception of rule of law adds further elements of political morality, such as particular economic arrangements (free-market capitalism, administrative planning), forms of governance (liberal democratic, socialist) or conceptions of human rights (collectivist, libertarian). Through this distinction, each country’s culture, traditions and economic aspirations can be accommodated while respecting the need for certain core elements of any legal system. Thus, law reform guided by “Asian values” or other discourses can be conceived without importing inappropriate political and legal philosophies (Stoltenberg, 2000).

Obstacles to legal modernization are particularly acute in China, which is undergoing profound social and economic upheaval as it abandons socialist economic doctrine. The importance of social networks (*guanxi*), a history of privileging substantive justice over procedural justice, and a preference for avoiding formal law in favour of pragmatic, informal means of resolving disputes, have posed barriers to the implementation of a law-based order suited to an open, market economy. Historically and culturally, the Chinese have tended to guide social behaviour

though moral standards and local custom rather than formal legislation (Sims, 1999). In the post-war era, the addition of socialist legal theory has presented law as a management tool to preserve the state's interest. Whereas Western legal systems stress the virtues of generality, equality and impartiality, Chinese cultural traditions, whether Confucian or Maoist, "have rejected rule ethics and universal principles in favor of a context-specific, pragmatic, situational ethics" (Peerenboom, 1999: 324). Consequently, their legal system often cedes wide discretionary power to administrators to implement the law and make it workable in specific situations. This does not mean that the law is simply shunted aside, but that legal rules are adapted to meet specific needs and situations. Since the early 1980s, rule of law has re-entered public discourse in China, with an emphasis on legislation and institution building. The PRC leaders have accepted the need for legal reform as a means to enable China's economic transformation.

While cultural traditions and political ideologies have made it difficult to establish a law-based order in China, such factors have also existed in South Korea, Singapore and Taiwan for instance, all of which have managed to establish fairly robust legal regimes. And once institutions of reform are established, they can develop a momentum of their own "if for no other reason than path-dependent institutional self-interest" (Peerenboom, 2003: 62). During the 1990s, Taiwan and Korea embraced a Western style liberal-democratic version of rule of law, including constitutional and parliamentary reforms and the promotion of more effective administrative and judicial structures (Cooney, 2004: 417). South Korea and Taiwan's democratisation reforms have both fuelled various environmental activist movements, which in turn provide some feedback for the strengthening of environmental laws (Gao, 2001). By contrast, Malaysia and Indonesia are soft-authoritarian regimes where opposition parties and the media have been somewhat muzzled through security laws and other means of enforcing a non-liberal conception of democracy (Field, 1995: 105-08). Thailand has also been confronting fundamental constitutional issues such as the relationship of democracy to rule of law, balance of power issues between the different arms of the state, and protection of human rights (Muntarborn, 2004). Thai governments have been unstable owing to shifting parliamentary coalitions and excessive "money politics", as well as the interference from the military. Some countries in East Asia are plagued by more serious institutional weaknesses. The rule of law is a somewhat distant reality in Vietnam, for example (Gillespie, 2004).

## **Environmental Regulation in Special Economic Zones**

The development of SEZs in East Asia has been accompanied by substantial legal reform. Law has played a key role in the designation of SEZs, the control of foreign investment, land use planning and general economic management. However, the effectiveness of this regulation is another matter. The most informative evidence regarding SEZ environmental regulation in East Asia comes from China's SEZs. While many development projects proceeded with merely perfunctory consideration of environmental and social effects during the early years of China's SEZ reforms, authorities quickly began to take environmental regulation more seriously for several reasons (Profiaizer, 1993: 320-21). First, PRC leaders felt that stronger environmental regulation would help them regain political control over the SEZs, which were gaining notoriety for "excesses" such as corruption and financial mismanagement. Such problems convinced authorities of the need for more supervision of activities in the zones. Second, tighter environmental regulation was also an outcome of internal struggles within the CCP between conservative and liberal factions over the direction of the market reforms. The conservatives cited environmental problems as among various reasons to oppose the SEZ model, thus prompting the reformers to increase environmental regulation in the SEZs to forestall further consternation. Thirdly, the strengthening of environmental laws in the SEZs would, believed some CCP leaders, facilitate the reception of Western legal concepts and technologies, which could assist China's modernization.

In 1986, the central government issued the Provisional Regulations on Environment Control for Economic Zones Open to Foreigners. Applicable to domestic and foreign enterprises, the regulations have the stated aim: "to prevent and control environmental pollution and ecological damage, to ensure the health of human beings, to protect and create a sound investment environment and to promote economic and social development" (article 1). Among their specific provisions, the regulations require SEZ managing authorities to include environmental protection measures in local development plans (article 3), to conduct environmental assessment studies of new development

proposals (article 4), and to prohibit new projects that pose specified serious harms (article 4) Local authorities are permitted to adopt supplementary pollution control standards, which may be stricter than baseline provincial standards (article 5).

Besides this general template for environmental governance, local authorities in the Chinese SEZs and open cities have enacted environmental regulations tailored to their localities. Presently, Shenzhen SEZ has the largest collection of environmental rules (Wenfang, 1998). Similarly, Xaimen and Hainan SEZs have passed numerous local environmental protection regulations over the same period. In all these cases, the SEZ regulations encompass such matters as land use planning, provision of urban amenities, pollution licensing and waste disposal. Unfortunately, poor legislative drafting, reflected by vague or unworkable provisions, plagues many regulations. The SEZ environmental regulations are somewhat austere and authoritarian, and provide few opportunities for formal citizen participation in SEZ environmental decision-making.

The extensive decentralisation of responsibilities to municipal authorities in China has contributed to variable and inconsistent implementation of environmental regulations in the SEZs. An unprecedented nationwide probe of the country's development zones, conducted by the Ministry of Land and Resources in 2003, found rampant land use and planning law abuses (Yan, 2004). Legislation delegating powers to SEZ municipal authorities is vulnerable to being undermined by those authorities following local economic aspirations that diverge from national environmental protection objectives. From the reforms, municipal governments have become "fully fledged economic actors, not just administrative-service providers" (Oi, 1993: 1137). The power of local authorities is increasingly linked to local business interests, from whom they derive revenue and political support.

But when we look at China's flagship SEZs, subject to much greater central oversight, environmental regulation appears to be much more effective. Some of China's major cities with SEZs have experienced significant declines in pollution. For example, Wheeler (2001: 229) found that from 1987 to 1995 particulate airborne matter concentration in the sampled cities declined from almost 500 g/m<sup>3</sup> to about 300 g/m<sup>3</sup>. According to the State Environmental Protection Administration, only 11 cities met or exceeded national air quality standards in 2000, and these cities included all the SEZ municipalities in Fujian and Guangdong provinces (Rongrong, 2000). The relatively few states owned enterprises (SOEs) in the SEZ cities may partly explain their success in achieving environmental standards. In particular, pollution loads in Shenzhen are significantly lower than typical Chinese cities. Shenzhen has complied with national air and water quality standards, and has been described as "among the top five environmental enforcers in China" (Wenfang, 1998).

These achievements have been acknowledged by various environmental awards and honours. In recent years, Chinese authorities have begun to see the SEZs as places to showcase environmental excellence. A decade ago, Profaizer showed percipience to argue that China "should utilize the SEZs as an environmental laboratory to study how economic growth can proceed in cooperation with environmental protection" (Profaizer, 1993: 345-46). Since 1997, Chinese authorities have designated five places as "model" environmental cities - all of them located in the major SEZs. The city of Shenzhen (an area which includes the SEZ) has been showered with several accolades, notably International Garden City in 2000 (bestowed by the International Association of Gardens and Recreational Facilities), and the Global 500 Roll of Honour of the United Nations Environment Program (UNEP) in 2002. In bestowing the award, UNEP cited the city's array of environmental laws, large investments in environmental protection and extensive parks. Another Chinese open economic city to receive recognition for its environmental performance is Dalian. It has received a UNEP Global 500 award and the Dalian Economic and Technological Development Zone Administration was certified to the ISO 14001 standard in 1999.

The SEZs usually have the advantage of extra resources – financial and technological - to address environmental problems. Some of the environmental achievements of the SEZs appear to owe not so much to diligent regulation, but investment in environmental infrastructure and public works schemes, such as construction of sewage treatment facilities, recreational parks and afforestation initiatives. Shenzhen's environmental improvements have arisen thanks to investments in hard infrastructure such as modern sewage treatment works. Between 1991-1995, Xiamen city spent 1.5 percent of its total GDP on environmental protection (about double the national average of 0.7 percent), and for the 1996-2000 period this rose to three percent of its GDP (China Business Information Network 1997). Thus, the superior wealth and high national profile of the SEZs would appear to be factors that have enabled them to achieve superior environmental conditions, rather than as a result of innovations in

their environmental regulation *per se*. Some SEZs enjoy superior environmental conditions because they had a head-start over other Chinese cities; initially set-up in relatively undeveloped areas, SEZs were given an advantage to engage in more systematic, careful planning from the outset (Ng & Tang, 2004).

There has been comparatively less effort to develop environmental regulations tailored to the SEZs in other parts of East Asia. There is also some evidence that environmental standards may be waived or diluted for SEZ investments. Looking at South Korea first, the recent Act on Designation and Operation of Free Economic Zones 2002, provides that “the possibility of securing the environmentally sound and sustainable development” is a matter to be taken into account by the government’s Free Economic Zone Committee when selecting sites for designation as free economic zones (article 5(5)). Further, the plan for each new free economic zone must include a “program for environmental preservation” (article 6(11)). Controversially, the Korean legislation also permits the authorities to reduce or waive any applicable pollution levies, environmental improvement charges or water use fees, where they consider this necessary “for smoothly carrying out the development project of any free economic zone” (article 15(2)). Further, approval from the Minister of Finance and Economy of a zone’s implementation plan is deemed to supersede the need for any further administrative approvals under separate environmental and planning laws (e.g., for clearance of forestry reserves, diversion of farmland to industrial development or establishment of sewage facilities) (articles 9, 11). These latter provisions dangerously displace environmental protection regulations and standards, which may not be adequately incorporated into a zone’s development plan. Environmental and labour laws are known to have been waived in Masan SEZ, for investors (Trade Union Advisory Committee, 1996).

Like Korea, Taiwan has relied on miscellaneous provisions for environmental management and planning scattered among its economic and environmental legislation for managing SEZs. Thus, the Air Pollution Control Act 1975 mentions that “when developing special industrial parks ... air quality monitoring facilities shall be planned and installed within the boundaries of the parks or in appropriate zones” (article 15). Further, the Environmental Impact Assessment Act 1994 requires that environmental assessments be undertaken into proposals to establish any industrial park (article 5(1)). Vietnam has also promulgated a miscellany of regulations and guidelines that contain provisions on the environmental activities of foreign investors in its special industrial zones (Bryant and Akers, 1999). Management plans for the establishment of industrial zones are to include measures for environmental protection, although the relevant regulation contains no guidance on what specific measures should be incorporated into the plans. Among the taxonomy of investments enumerated in the 1996 Law on Foreign Investment in Vietnam that should be encouraged by authorities, are those for “protecting the environment or investing in research and development” (article 3(1)(c)). It is also stated in a 1997 administrative circular that industries prohibited from investing in the country’s industrial zones include those producing harmful chemicals, dyes and radioactive materials. But implementation of these measures appears wanting so far. One study has reported that the National Law on Environmental Protection and the National Environmental Agency “are relatively weak compared to the pro-industry sections of government and also to the various regional governments... The consequence is that the Export Processing Zones, like those in Ho Chi Minh City and Haiphong, experience minimal pressure to adhere to proper procedure” (Drakakis-Smith & Dixon, 1997: 24).

Among other nations, in Thailand all designated industrial estates are overseen by the Industrial Estate Authority (IEA). The IEA is a state enterprise attached to the Ministry of Industry, and pursuant to the Industrial Estates Authority of Thailand Act 1979 has a mandate to promote industrial development in accordance with land use planning and environmental protection measures (UNEP, 2003). The IEA is responsible for industrial pollution control and other environmental management within all of the industrial estates. It has set up environmental monitoring systems and a central wastewater treatment plant in each estate, though it usually subcontracts this work to private contractors. The Philippine’s Special Economic Zone Act 1995 contains just two brief clauses on environmental management. The Act provides that the Philippine Economic Zone Authority “in coordination with the appropriate agencies, shall take concrete and appropriate steps and enact the proper measures for the protection of the local environment” (section 33). The legislation unfortunately gives no hint as to what constitutes “concrete and appropriate steps”. Secondly, the Special Economic Zone Act also authorises the government to compulsorily acquire lands within or adjacent to an SEZ “for the protection of watershed areas and natural assets valuable to the prosperity” of the zone (section 29(c)). More helpful are the extensive environmental provisions in the SEZ laws enacted for specific zones. Thus, the Cagayan Special Economic Zone Act 1995 gives the Cagayan Economic Zone

Authority (CEZA) the powers, *inter alia*, “to protect, preserve, maintain and develop the virgin forests, beaches, coral and coral reefs within the Zone. The virgin forest within the Zone will be proclaimed as a national park and will be covered by a permanent total log ban. For this purpose, the rules and regulations of the Department of Environment and Natural Resources ... shall be implemented by the CEZA” (section 6(g)). The Act also gives the Authority power “to adopt, implement and enforce reasonable measures and standards to control pollution within the Zone” (section 6(h)).

## **Differential Environmental Regulation of Foreign and Domestic Enterprises: The Chinese Experience**

To properly understand the environmental sequelae of SEZs, we should assess how governing authorities have regulated and managed the environmental activities of foreign investors. Differences between the way foreign and domestic enterprises are regulated by environmental authorities would be expected in countries seeking to industrialize through FDI. One might believe that regulators would treat foreign investors - bringing coveted capital, technology and management skills - more favourably than domestic enterprises. Certainly, there are some notorious instances where authorities have waived environmental rules to avoid jeopardizing foreign investment deals. This is alleged to have occurred in the approval of Sony Corporation’s TV kinescope production facility in China’s Pudong New Area (Lo & Yip, 1999: 366). A similar story of expedited approval and perfunctory compliance with environmental procedures involved the Shell oil refinery project in Guandong (Gilley, 1996). But, in general, environmental regulators in fact seem more likely to treat domestic enterprises leniently, as can be seen from the case of China.

In general, Chinese environmental law ostensibly applies equally to all entities no matter their status, whether a foreign company, state-owned enterprise (SOE), a township and village enterprise (TVE) or a domestic private company. Within the corpus of its environmental law, there are few provisions that single out foreign investors. The procedures governing approval of foreign investments have included some environmental measures (Huang, 2003). Beginning in 1983, the NPC promulgated the Circular of China’s State Administration of Industry and Commerce concerning the Registration of Foreign Companies Undertaking Joint Exploitation of Resources and Contracted Projects in China, which contained a provision making polluters liable for environmental harm. In 1990, the Rules for the Implementation of the Law of the PRC on Foreign-Capital introduced a provision: “application for the establishment of a foreign-capital enterprise shall not be approved if the proposed enterprise would involve ... possible creation of environmental pollution” (article 5). The Rules also stipulated that an application to establish a foreign-capital enterprise must disclose the risks of “environmental pollution and the measures for tackling pollution” (article 15(10)).

China’s main regulations concerning the allowable scope for foreign investment are presently the Regulations for Guiding the Direction of Foreign Investment 2002 and its companion Catalogue for Guiding Foreign Investment in Industry (Wang, 2002: 188-93). They provide guidance to prospective investors on which foreign investment projects can be approved at a local government level, the preferential treatment that such projects will receive, and which investment projects are restricted or prohibited in China. Among the investment projects deemed to be encouraged by these regulations are ones that involve use of renewable resources, new technology or equipment for preventing and controlling environmental pollution; and projects that use new or advanced technology to save energy, raw materials, raise economic efficiency or alleviate shortages in the domestic market (Wang, 2002). Restricted categories of foreign investment include projects with an adverse effect on the environment or energy conservation; and projects involving the exploration for and/or extraction of rare or precious mineral resources. Prohibited foreign-investments, according to the Catalogue, include projects that pollute the environment or endanger human health; and projects that occupy large tracts of farmland.

Not only do the above provisions suggest that foreign investments are subject to greater environmental scrutiny than projects initiated by domestic enterprises, but in practice foreign investment projects “are almost always monitored at the national level ... because of the widely acknowledged fact that local regulators may be overly sensitive to the need to attract outside investment” (Hongiun & Ferris, 1998: 50). For instance, foreign

projects are more likely than domestic projects to be subject to EIA procedures. According to the Management Procedures for Environmental Protection in Construction Projects, the State Environmental Protection Agency is generally to be responsible for the review and approval of the EIA process for “mega projects”, representing investments larger than RMB 200 million (which will usually be foreign investment projects). Such projects must also be approved by the State Planning Commission (Hongiun & Ferris, 1998: 50).

The structures for the implementation and enforcement of environmental regulation also allow for some distinctions to be made between domestic and foreign enterprises. Hongiun and Ferris (1998: 49) argue that, “local enforcement practices may vary the application of the law with respect to domestic and foreign-owned operations, or even between foreign operations owned by different companies”. An important consideration is that China’s environmental regulations and policies have been institutionalised primarily within the SOE sector (Jahiel, 1997: 102). For example, a study by Wang and others (2003: 258) of China’s pollution levy system found that levy payments tended to be based on negotiations between factory managers and local environmental protection offices, and that private companies tended to have less bargaining clout than the SOEs over the size of levy payments. The mechanisms for collection of discharge fees, monitoring of environmental pollution and so on, arose principally for the SOE sector. Thus, policies aimed at expanding the market economy have posed challenges for Chinese environmental authorities that lack similar experience in regulating foreign companies.

Some research suggests that foreign investment in China, whether undertaken through a joint venture or a wholly owned foreign operation, is more stringently regulated for its environmental effects than domestic economic activity. In joint ventures, the domestic partner tends to leave the environmental management concerns to the foreign partner, and authorities usually target enforcement of environmental laws against that foreign partner (McElligott, 1996). Klee and Thomas (1997: 36) argue that, “because many Chinese officials consider international companies to have more resources and more experience in meeting pollution-control requirements, they often expect them to be in full and immediate compliance with the requirements”. Sims (1999: 1241) found that authorities are much more likely to collect environmental fines from foreign companies “that are believed to have deep pockets” than from SOEs, which are often at the margins of solvency. The first environmental law case in a Chinese SEZ was decided in 1985 concerning *Shenzhen Municipal Shekou District Environmental Monitoring Station v. Kaida Enterprises Ltd*. The case involved a Hong Kong based toy company, which was successfully prosecuted and fined for pollution based on violations of China’s Environmental Protection Law even though the company’s business contract with the SEZ authorities did not contain any environmental protection measures.

Whereas the letter of the law is more likely to be applied to foreign entities, a pragmatic and tolerant approach is often displayed towards local enterprises.(Clarke & Thomas, 1997). Surveys of the environmental regulation of Chinese firms reveal lax supervision and arbitrary enforcement practices (Steger, Zhaoen & Wei, 2003: 25). This is particularly the case with the SOE sector, despite the fact that the structures for the implementation of environmental regulation arose principally out of the SOE sector. Enforcement action against SOEs is less likely than against foreign or other domestic enterprises because SOEs function as more than mere factories. Because they provide important local social services to workers and their families, such as housing and health care, many SOEs are allowed to continue operations despite pollution emissions (Ma & Ortolano, 2000: 145). The fact that unprofitable enterprises benefit from lenient regulation reflects the continuing presence of socialist practice and principles. But, as China shifts to a market economy, tensions will arise between such socialist redistributive policies and the need to promote an efficient allocation of scarce resources.

## **From Economic Modernization to Ecological Modernization**

Industrialization and market transformation will continue to be an indelible feature of East Asia’s economic policy for some time. But the region’s long-term economic modernization will ultimately not be sustainable unless its economic policy is wedded to stronger environmental regulation. The challenge is to reform environmental law and policy to take account of East Asian circumstances without accommodating them so completely as to surrender all possibilities of improvement.

The developmental state has not disappeared from East Asia, and there often persists a big gap between the professed new market-oriented law and the traditional norms of central planning and administrative regulation (Wang, 2003: 32). Without the security of a well-functioning legal order and mature markets, businesses have sought to forge closer relationships with the authorities that control access to capital, technology, raw materials and development approvals (Wang, 2002: 55-56). Consequently, local authorities commonly interfere in the operation of enterprises and in disputes with third parties in an effort to protect local businesses in which they have a stake.

The problems of adapting environmental law to the transition from a planned economy to a capitalist, market economy are acute in China. It's still extant environmental legislation dating from the 1980s or earlier assumes enterprises are owned by the state. Some provisions of the Environmental Protection Law 1989 – such as those conferring responsibility for use of polluting technologies (article 34) and for disabling pollution controls (article 37) – can be interpreted as to apply only to government work units (*danwei*). Authorities seem to assume that national development plans can shape the behaviour of economic actors ever more responding to market signals – signals that might not be consistent with those plans. The laws do not envisage the vast and complicated array of corporate and other business entities that have proliferated since China's economic opening. An increasingly market-based economy requires policy instruments that offer incentives for businesses to improve their environmental performance.

A model of “ecological modernization” reform could offer major advantages to the more advanced economies of East Asia. Although criticized by some environmentalists as a compromise that alleviates rather than solves the environmental crisis, the advantages of ecological modernization would appear to outweigh its disadvantages, especially for economies rapidly industrializing (Welford & Hills, 2003). Ecological modernization doctrine promises a healthy synergy between economic development and environmental protection when economies and technologies are “modernized” to allow for more efficient and less wasteful production (Holliday, Schmidheiny & Watts, 2002). Modernization can occur through corporate environmental management systems and application of advanced, clean technologies, encouraged through policy instruments such as pollution taxes and corporate environmental reporting obligations. The ecological modernization model was the basis of Japan's successful response to air pollution in the 1970s, and the cleanup of West Germany's industrial and energy sectors after the acid rain-induced forest death in the 1980s (Young & van der Straaten, 2001). But ecological modernization reforms are probably not suitable for all East Asian economies. Command and control regulation is more apt for countries setting up an environmental regulatory apparatus in the first instance, a position that the poorer nations in Indo-China find themselves presently.

Command and control regulation in much of East Asia is gradually being supplemented by a mosaic of environmental governance mechanisms, spanning market incentives, business self-regulation, management system-based approaches, voluntary reporting schemes, and audit requirements designed to increase the transparency and accountability of industry and regulators. Economic instruments such as pollution charges, pricing policy, favourable terms of investment for environmental technology, market creation can yield significant environmental benefits (OECD, 1994). Financial mechanisms to encourage investment in clean technology are appearing. South Korea is promoting investment in clean technologies through its Act Relating to Environmental Technology Support and Development, 1994. The Singapore government is also advocating technologic solutions to its environmental problems, establishing National Energy Efficiency Committee in 2001 to forge programs to encourage more efficient use of energy by industries, homes, commercial buildings and vehicles. A similar financial mechanism was established by Thailand's Enhancement and Conservation of National Environmental Quality Act 1991.

Investment in clean technologies is also a high priority of Chinese leaders, particularly given the legacy of a state enterprise sector lumbered with old, inefficient and wasteful technologies dating from the 1950s. China's Clean Production Promotion Law (CPPL) of 2002 shifts China's environmental regulatory focus from traditional end-of-pipe controls to the products and processes from which pollution originates. The CPPL requires enterprises to recycle some specified products and packaging, and to report regularly on their pollution emissions. It also advocates some preferential measures for those who adopt the clean production model, such as preferential loans, tax cuts or exemptions.

Another sign of ecological modernization reform is environmental taxation. Air pollution charges have been levied in South Korea and China; and water effluent treatment charges exacted in Thailand, Hong Kong and

China; and water consumption charges exacted in virtually all countries (Asian Development Bank, 2001: ch. 11). Even Vietnam, with one of the most elementary environmental law systems in East Asia, has introduced regulations providing for the payment of environmental protection fees by developers (Government Decree on providing Guidance for the Implementation of the Law on Environmental Protection, 1994, articles 34-36) and a natural resources use tax (Ordinance on Natural Resources Tax 1993). The most widely used economic instrument in the region is wastewater charges, though they tend to have been limited to just a few big industries or large industrial estates (Asian Development Bank, 2001: 12). The emission and resource charges are used primarily to raise revenue, and the fees are usually not calibrated to reflect the marginal cost of ecological damage. Tradeable emission permits have hardly been introduced in the region.

The most extensively studied environmental charge in East Asia is China's pollution discharge levy. Introduced by the State Council in the early 1980s after three years of experimentation, China's discharge levy system formally requires that a fee be paid by any enterprise whose effluent or emission exceeds the legal standard. Charges are levied for water and air pollution, solid waste as well as noise. The scheme was arbitrarily implemented until about 2000, when new methods of collecting the levy were adopted, coupled with more recycling of levy revenue into pollution control projects. But fundamental problems remain because the levy rate is usually much lower than the costs of installing or operating pollution control equipment, and so polluters have little incentive to minimize their discharges (Jahiel, 1997: 91). In fact, enterprises typically find it cheaper to mothball existing pollution control mechanisms, which are more expensive to operate than the discharge fees. In practice, the amount of levy paid by a polluting factory ultimately depends on the result of its negotiations with the local environmental protection bureau. However, the potential for pollution taxes to help China's environment is clear. A study of 260 enterprises in Beijing and Tianjin with multiple water pollution sources found that an appropriately set emission charge would reduce abatement costs under the prevailing regulatory regime from US\$47 million to \$33 million annually (Dasgupta, et al, 1996).

Another way that governments can facilitate ecological modernization of their economy is by encouraging enterprises to comply with best practice corporate environmental management standards (EMSs), such as those embodied in the International Standardization Organization (ISO) 14000 series (Monsma, 2000; Stenzel, 2000). An EMS provides a framework of standards and processes for corporations to improve their internal use of materials and energy, and to provide a structure for companies to identify, appraise and minimise their environmental risks. At a higher scale, the concept of the "eco-industrial park" has been advanced by scholars to extend a corporate EMS to a group of companies on an industrial estate that cooperate to reduce environmental waste and improve resource efficiency (Allenby, 1999).

Although developing countries were not well represented in the negotiations of the drafting of the ISO 14000 series, the developing world including East Asia is increasingly viewing ISO 14000 as a means to stimulate corporate environmental responsibility and thereby achieve sustainable development (Mikulich, 2003: 120). Companies in East Asia are seeking certification for several reasons, principally for reputation enhancement and environmental materials and waste cost savings (Fryxell & Szeto, 2002). Among further motivations, export-oriented industries are seeking to avoid potential environmental-based trade barriers, and some large companies are responding to shareholder demands for corporate social responsibility. Some empirical research in East Asia shows that ISO 14001 certified companies have a record of better compliance with government environmental regulations and standards than companies not ISO-certified (Kwon, Seo & Seo, 2002).

But as some businesses may be reluctant to implement EMSs, especially in the small business sector – where shareholder and trade pressures are weaker or non-existent, governments are looking for ways to promote more corporate participation in EMSs. China adopted the ISO 14000 series as official state policy on April 1, 1997. The China Accreditation Committee for Environmental Management Systems Certification Bodies works to encourage domestic enterprises to adopt the ISO 14001 standard as a means of strengthening environmental enforcement in China, and to conduct trial certifications of Chinese companies (Mikulich, 2003: 145). The chief reason for adoption of ISO by the PRC is that it would enable China to bolster its environmental regulatory regime without sacrificing economic growth. Calkins suggests that China only takes "environmental steps if it sees a capitalist advantage" – thus, the economic benefits to be derived from ISO 14000 participation were seen as the "greater marketability of Chinese products, improved and streamlined raw material consumption, reduced cost of

waste management, reduced liabilities” (Calkins, 1997: 616). So far, ISO certification among Chinese enterprises has been slow, and has arisen mostly in the context of joint ventures with Western companies operating in the SEZs (Calkins, 1997: 615, 636). Surveys of Chinese firms suggest low levels of awareness and commitment to environmental protection, and a preference to adopt discrete, end-of-pipe technological solutions rather than holistic reorganisation of management practices as demanded by EMSs (Steger, et al, 2003: 22-23).

Elsewhere in East Asia, the Taiwanese government has fervently promoted certification of corporate EMSs, and introduced environmental reporting regulatory schemes into the Environmental Protection Administration regulations (Kinne, 2004: 93). The government offers financial assistance to firms wishing to invest in measures to acquire ISO 14001 certification. The South Korean government is also encouraging ISO 14000 certification. In 1994, it initiated a pilot certification scheme and in 1995 the Korean Standards Association established training activities jointly with certification bodies from the United Kingdom. South Korea is implementing ISO 14001 by requiring that companies adopt a general EMS, an environmental assessment of their manufacturing processes, and a plan for the improvement of environmental management (Mikulich, 2003: 147). The South Korean Ministry of the Environment reviews the applications, and companies deemed environmentally friendly must report annually on their progress and meet improvement plan indicators. In turn, these companies should enjoy reduced compliance inspections.

Other corporate EMSs available to promote ecological modernisation include the chemical industry’s Responsible Care program (Simmons & Wynne, 1992) and the European Union’s Eco-Management and Audit Scheme 2001 (EMAS). The EMAS, for example, seeks to promote continuous environmental performance improvement in industrial activities or company level operations, by committing certified entities to evaluate and improve their environmental performance and provide relevant information to the public (Orts, 1995: 1289). There is already evidence of growing interest in Responsible Care among East Asian companies (Tremblay, 1997). The EMAS is being adopted by a number of European companies engaged in business in East Asia (Markman, 1997).

Increased cooperation and assistance from international donors and lenders, and international environmental organizations, are vital conduits for ecological modernizing reforms. Many developing countries lack the financial resources, technical expertise and management systems to devise and implement sustainable development policies. Various countries in East Asia are reforming their environmental laws in collaboration with international organizations (Boer, 1999: 1513-14). For example, the United Nations Environment Program (UNEP) has assisted scores of countries through its Environmental Law and Institutions Programme Activity Centre in Nairobi, and its UNEP Regional Office for Asia and the Pacific in Bangkok. Environmental law training programs have also been funded by the Asian Development Bank and coordinated by the National University of Singapore and the IUCN Commission on Environmental Law.

Besides such support, the channelling of financial and technological assistance through treaties is vital to enhance the institutional capacity of NICs. Most East Asian nations have ratified the major multilateral environmental treaties, many of which provide the states parties with enhanced access to environmental technologies and financial assistance. For example, China’s success in reducing ozone-depleting chemicals owes principally to the financial and technological support it received from joining the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987 (Zhao, 2002). The Kyoto Protocol will likely play an even more influential role, mainly by means of its dedicated funds (Dessai, 2003) to help developing countries abate CO<sub>2</sub> emissions through technology transfer for energy efficiency and by land use and waste management changes. The Kyoto Protocol’s Clean Development Mechanism (CDM) can also support investments in non-fossil energy projects in developing countries. China probably will become the largest recipient of CDM projects, and its authorities have already given priority to energy efficiency and renewable energy projects for CDM-finance (Tangen & Heggelund, 2003: 304). Bilateral and multilateral aid and loans can also provide a conduit for environmental assistance. Japan is the most generous bilateral donor in the region, and a significant number of its aid projects contain environmental improvement elements (Tremayne & Waal, 1998). The European Union (EU) is emerging as a major donor in the region, and its environmental initiatives include the EU-China Environmental Management Co-operation Programme (2001-2005), and the EU-China Liaoning integrated Environmental Programme (1999-2004). An increasing proportion of World Bank and Asian Development Bank finance is also tied to sustainable development practices (Gan, 2000).

## **Closing Remarks**

East Asia is industrializing very quickly, causing environmental policy to dangerously trail economic modernization. Its market reforms clearly present threats to the environment but also, ironically, some possible solutions. If the region is to avoid uneven modernization, policy-makers must prioritize long-term environmental health above short-term and possibly ephemeral economic gains. Interestingly, while the SEZs pose momentous environmental challenges, the zones do not appear to be suffering from pollution problems any worse than other parts of East Asia. There have been some problems associated with inappropriate relations between local administrations and businesses in the SEZs, but the environmental governance of SEZs appears to be generally at least as competent as other parts of East Asia's economies. Because the SEZs attract new industries often utilizing more advanced technologies and efficient production methods, those firms can often pose a lower pollution burden compared to the old, industrial state-run enterprises. Foreign investment can certainly be a force that exacerbates environmental problems in developing countries, but it can also offer some environmental and social benefits, as the experience of China's SEZs testifies. Because of their high profile and greater wealth, foreign investors in SEZs are also likely to be subject to stricter environmental regulation than local firms. So, the most pressing areas for environmental law reform are not necessarily those in the kernel of industrialization.

International environmental law and intergovernmental assistance are necessary elements in the modernization of East Asia's environmental regulations and policies. More use of economic instruments and other ecological modernization reforms will be vital to ensuring the sustainable economic transformation of East Asia's SEZs. But while external forces can provide a catalyst for some change, they alone will not secure a sustainable future. The region's legal and political systems pose a range of deep-rooted structural barriers to environmental reform. The rule of (environmental) law has yet to be firmly established in East Asia. A national constituency for law reform has to exist; it can neither be manufactured nor led from outside. While relevant laws, practices and processes of law reform from other countries can and should be assessed during the reform programme, the output has to be seen to be national, dovetailing into the existing corpus of law and appropriate to local circumstances. East Asian governments' growing preference for market-based governance would therefore appear to offer opportunities for ecological modernization policy reforms.

Most capacity-building efforts to date have focused on core national institutions but not on regional and local governments. Among the various problems is the need to enhance the institutional capacity of municipal authorities to be environmental regulators, and to change the incentive structure for taking environmental protection action. The extent to which national environmental policy goals are attained is strongly influenced by the effectiveness of the local implementation apparatus. Central governments should require all local administrations in the SEZs to establish environmental protection bureaux of first-tier status and equip them with adequate staff and resources. Some of the revenue from SEZs should be earmarked specifically for these bureaux. East Asian governments must also enhance institutional mechanisms for cross-jurisdictional environmental cooperation among local authorities.

## **References**

Contact the Author for a list of references.

# Macro-Environments of Business in a Developing Country: Barriers to Being Green?

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## Abstract

This paper provides a case study on how macro-environmental factors such as political economy, environmental expectations and industry specific policies may have failed to encourage tourism business in Malaysia to be 'green'. Using qualitative data, the paper shows an empirical support for the institutional theory that attributes an organization's strategic management practices to external forces that influence the creation and implementation of legitimacy strategies (Hoffman, 1997b) in the context of Penang, an island state in the northwest of Peninsula. Several conclusions were made relating to: 1) the influence of state control on business's reaction towards emerging issues such as environmental management; 2) the influence of regulations and social pressure on sustainable governance among businesses; and 3) the nature of tourism industry. From these observations, the paper recommended several crucial steps to precede a wider adoption of environmental management in the Malaysian tourism industry.

## Introduction

The concept of sustainable development needs no introduction. For business, sustainable development has been viewed from the economic, environmental and social aspects. As defined by the World Business Council on Sustainable Development (2003), sustainable development include 1) profitability, wages and benefits, labor productivity, job creation, expenditures on outsourcing and human capital; 2) the impacts of processes, products, and services on air, water, land, biodiversity and human health; and 3) workplace health and safety, community relations, employee retention, labor practices, business ethics, human rights and working conditions (WBCSD, 2003).

Following the Johannesburg Summit in 2002, business has been firmly asked to shoulder the responsibility of realizing the sustainable development paradigm. In the developed countries, the transformation of business towards sustainable development began through the concept of 'eco-efficiency', which according to DeSimone and Popoff (1997), is a business concept that emphasizes four aspects; 1) value creation with environmental business. This aspect stresses resource productivity during the entire process of production to create value for consumers, society and business itself; 2) the promotion of externalities (waste, pollution, and over consumption of non-renewable resources) reduction. The concept of 'zero defects' is proposed as a tool to achieve this, with an emphasis on a long-term commitment from companies; 3) the linking of environmental excellence to business excellence. In this regard, eco-efficiency functions as a management philosophy that business can use to address the requirements of all its key stakeholders; and 4) the recognition that pollution control needs to be extended beyond on-site measures to include integrated environmental considerations throughout the product chain. This is known as the 'sustainable production and consumption' concept.

Consequently, managerial approaches have been changed to reflect the eco-efficiency considerations particularly among the multinational corporations. This strategic awareness led to an important institutional development i.e. the formation of Business Council for Sustainable Development (BCSD), which highlighted the urgency of rethinking corporate strategy related to the use and management of natural resources through the concept of eco-efficiency (Schmidheiny, 1992). The council was formed in anticipation of the Rio Earth Summit of 1992.

Since Rio, many more events that signal heightened standards of corporate environmental management took place. Among them was the establishment of environment-related business network such as the World Business Council for Sustainable Development (a merger between BCSD and the World Council for Sustainable Development) in 1995 (Utting, 2000). This network aimed at diffusing eco-efficiency mentality to global businesses, including those in developing countries, by formulating international environmental management standards that

enabled 'globally operating businesses to abide by the same rules where the environment is concerned' (Hortensius and Barthel, 1997:19).

In the 1990s, the concept of 'voluntary initiatives' was promoted by a number of industrial associations and individual companies to encourage self-regulated activities that pre-empt governmental regulations. Voluntary initiatives provide an avenue for business to negotiate and develop mutually agreed standards with the government and NGOs. Strong voluntary initiatives came in the form of codes of conduct or guiding principles established by international or national associations. Environmental reporting such as 'The Coalition for Environmentally Responsible Economies' (CERES) Global Reporting Initiative (GRI) was also increasingly practiced during this decade, particularly by a small number of large corporations (Starkey and Welford, 2001).

The positive events and changes leading to business's increasing propensity to engage in responsible considerations, explained above largely reflect the experience of the manufacturing industries in developed countries. In developing countries, the situation was much less encouraging. The lack of civil movement pressure and governments' lack of interest, experience and resources to regulate business's impacts on the environment, absolved businesses operating in those countries of responsibility for their negative environmental impacts. Environmental regulations, where these existed, were often complex, contradictory and vague (Perry and Singh, 2002; Global Environmental Forum, 2000). Developing countries' strong desire to achieve economic development also contributed to the generally low regard for environmental management. High priority for economic development at the expense of the environment, coupled with lack of strong civil pressure, reflects the Malaysian experience in its development context in the 1970s.

The situation is even more devastating in the context of the service industry. The industry has largely escaped being blamed for environmental degradation despite representing a big section of a country's economy. This is true particularly for tourism, which in several developing countries has been highly prioritized to the extent that it takes over traditional economies such as cash crop agriculture and mineral extraction in terms of contribution to GNP, employment and export receipts (United Nations Economic and Social Council Report, 1999). Yet, tourism has essentially been perceived as a 'softer' economic option compared to manufacturing.

But, global agenda is now leaning towards putting environmental and social responsibility on the shoulder of tourism business as well. The *Agenda 21 for Travel and Tourism* developed during the Earth Summit in Rio has highlighted the role of service providers in environmental and social issues. For tourism, for example, the Secretary-General in a United Nations Economic and Social Council Report (1999: 11-12) emphasized the following:

The central challenge for the tourism industry is to transform itself, in all its forms, into a sustainable activity by reorienting corporate philosophy, practice and ethics to promote sustainable development through, *inter alia*, better environmental management and practices and close partnerships with Government and civil society...Tourism enterprises, both large and small, should integrate environmental management systems and procedures into all aspects of corporate activity in order to reorient their management at all levels towards sustainable development. This fundamental reorientation of management philosophy and practice will necessitate the implementation of; *inter alia*, environmental and social audits, lifecycle assessments and training of staff in the principles of sustainable tourism management.

Given this development, there is a need to see how tourism businesses can or are responding to their wider responsibility. This is particularly important in the context of developing countries where tourism is often embraced as an important revenue earner. Experiences from the developed countries show that business cannot act alone when dealing with emerging issues such as environmental and social responsibility. Instead, the cooperation of other major groups, governments and agencies is essential for business to engage in sustainable practices. As stated by Mark Moody Stuart, Chairman of the Business Action for Sustainable Development (in WSSD, 2002: 4):

Perhaps the most important element needed to facilitate the growth of economic activity, which was essential to achieving sustainable development, was sound governance systems at a national and local level in each and every country...whereby all sectors of society felt that their view had been taken into account and that the outcomes and that the outcomes were fair and equitable. That would include sound governance of business, with the rules and frameworks necessary for markets to operate fairly and openly in every country, and with appropriate environmental regulation applied impartially to all. However, it would also include such elements as the rule of law, security, human rights and intellectual property.

This paper tries to explain why tourism business in Malaysia is still lukewarm towards the idea of being 'green' (see Kasim, 2003). In other words, while there is a general appreciation and awareness about the importance of considering environmental and social issues in a hotel's daily operation, there are mixed attitudes towards actually including environmental and social issues in decision-making. It can be argued that the discrepancy between awareness and attitudes towards a hotel's expanding responsibility may be the accumulated result of exogenous influences that have moulded tourism's operation in Malaysia. Hence, this paper looks at the macro environmental context of hotel business in Penang and how this may have led to the lukewarm attitudes. Penang is a state located in the Northwest side of the Peninsula, where tourism is considered the second biggest foreign exchange earner. The term 'green' is used in this paper to represent the need to embrace sustainable tourism development by addressing hotel business's environmental and social responsibility issues.

## **Methodology**

For the purpose of this paper, qualitative data from documentary analysis and personal observations was gathered. The data was then analyzed using Miles and Huberman (1994: 9) proposition of 1) affixing codes to a set of field notes drawn from observations and interviews; 2) noting reflections or other remarks in the margins; 3) sorting and sifting through these materials to identify similar phrases, relationships between variables, patterns, themes, distinct differences between subgroups, and common sequences; 4) isolating these patterns and processes, commonalities and differences, and taking them out to the field in the next wave of data collection; 5) gradually elaborating a small set of generalizations that cover the consistencies discerned in the database; and confronting those generalizations with a formalized body of knowledge in the form of construct or theories.

## **The Findings**

The first macro environment analyzed was the political economy of tourism (particularly hotel) business in Malaysia. As one of the country's pivotal states, the political economy of Penang closely mirrors that of the country. For this reason, the political economy influencing the hotel sector in Penang may be understood by looking at Malaysia's political economy. This is necessary to determine what Rodan et al. (2001) term the degree to which the market is shaped by state regulation, intervention and liberalization. Although a comprehensive outlook on the Malaysian political economy is beyond the scope of this paper, two relevant key issues: the state-market relations under the New Economic Policy; and the state-market relations under the New Development Plan and the role of tourism trade and promotion in the country's economy are considered important in contextualizing business' attitudes towards business's environmental and social responsibility (BESR).

### **State-Market Relations under the New Economic Policy**

State-market relations in Malaysia have been influenced by strong state control over the economic direction of the country. After colonialism, the Malaysian government worked to change the laissez-faire capitalism that led the country to massive social divisions and inter-ethnic violence on the 13<sup>th</sup> May 1969. The New Economic Policy (NEP) was introduced in 1971 to eradicate poverty, restructure the identification of race with economic function and balance out interethnic economic imbalances, using ethnic quotas and targets to regulate access to state assistance, business opportunities, tertiary education and civil service requirement (Khoo, 2001; Gomez and Jomo, 1997). Through the NEP, the state has strong control over the country's economic orientation. This control is demonstrated via heavy regulation of business, both local and foreign, using legislative means (Industrial Coordination Act [ICA], 1975) and bureaucratic procedures (set up by the Foreign Investment Committee). The ICA grants the government powers over licensing, ownership structure, ethnic employment targets, product-distribution quotas, local content, and product pricing (Jesudason 1989)

The economic intervention of the state strongly influences the power balancing between the state and foreign and domestic capital. With the objective of significantly increasing the presence of domestic participation in commercial and industrial activities, the NEP targeted increasing Malay ownership, followed by the gradual increase in non-Malay shares of corporate equity. In relation to tourism, this probably explains the high rate of hotel

ownership by Malaysian conglomerates (though not necessarily self-managed). This intervention eventually led to the decline of foreign ownership from 63.3 percent in 1970 to 30 percent in 1990 (Khoo, 2001).

The strong state management of the economy, although considered essential to achieve the two-pronged objectives of eradicating poverty and achieving national unity, has been criticized by some quarters as being prone to abuse and unfair practices (see Jesudason 1989; Gomez and Jomo, 1997). The government's enhanced developmentalist capacity has been observed as favoring politically affiliated businessmen who, in return, tended to focus on businesses in the relatively protected import substituting manufacturing, services and other non-tradable or from, "complex paper-shuffling, asset stripping and other similar corporate maneuvers instead of from the more significant gaining in productivity or international competitiveness" (Jomo, 1995:46).

The post-NEP capitalists are also criticized as being 'rentier' and less inclined to do the difficult but ultimately necessary development of internationally competitive productive capacities. Rather, too much attention is given to accumulation of wealth through mergers and acquisitions. Most of these conglomerates focus on sectors in which state policies and protection made the difference between success and failure. They include banking, resource exploitation, construction, property and real estate, gaming, tourism, transport, utilities and services (Khoo, 2001).

From the political-economic context described above, two inferences may be made. First, the state has always been the driver of changes in the domestic economy. Business, on the other hand, has always been the subject of state control and interventions. Thus, in dealing with emerging challenges posed by environmental and social issues, Malaysian business's attitudes towards BESR depend on how strongly the issue is pushed by the state. State interventions have been proven to be successful in the past. Thus, it may also be a useful catalyst for improving business attitudes towards BESR.

Second, having been nurtured by protectionist policies and political patronage by the state, Malaysian business<sup>ii</sup> has not traditionally thrived on strategic competitiveness. Thus, such independence may lead business to be inadequately prepared to handle emerging issues such as corporate environmental and social responsibility. The implication is that without government intervention, business may fail to grasp the importance of the issue, especially from the global competitiveness perspective. Their attitude displays what Elkington et al.'s (1991) term as the 'timid oxen' that needs constant guidance and direction from the authority/legislators.

#### **Contemporary State-Market Relations and the Role of the Tourism Trade and Promotion in the National Economy**

The changing nature of challenges facing the country shifted the direction of Malaysia's economic advance. Having brought down poverty levels and enhanced national unity quite successfully, the country is seen as having shifted its attention from 'restructuring' to 'growth' with the replacement of NEP with a National Development Plan (NDP). NDP is a plan that is strategically designed to achieve a broad range of economic goals and socio-environmental changes. Through an intricate mix of market-augmenting macroeconomic policies that are 'pro-growth', 'pro-investment', and 'pro-market' in the NDP, the country's economy is opened up to domestic private investment, direct foreign investment and integrated with international trade. This has managed to turn the country from an agrarian economy into a second-tier newly industrializing country with high rates of export-oriented and manufacturing-led growth (Khoo, 2001). The positive growth rate is evident by looking at the country's Gross Domestic Product (Table 2), from the mid-1980s when Malaysia began to push privatization after more than a decade of promoting public sector growth.

If the past economic orientations have seen state interventions that increase domestic investment, the new economic pursuits encourage direct foreign investment instead. This enhances the power and influence of foreign capital. Yet, extensive state economic intervention is still in place, to advance the political agenda of restructuring the Malaysian society through reducing inter-ethnic economic imbalances (US-AEP, 2002).

Vision 2020 - the goal for Malaysia to transform into a developed country by the year 2020 - and the opening up of the economy to speed up the achievement of this goal through market-augmenting macroeconomic policies, has also unfortunately made Malaysia susceptible to speculative capital from the international money markets. Consequently, many business conglomerates were dependent on external borrowing and stock market capitalization, which enhanced business vulnerability during the 1997 East Asian financial crisis. Had it not been for the state's National Economic Action Council (NEAC) intervention through recapitalization, rescue and reflection of 'strategic economic sectors', many of these conglomerates would have been exposed to imminent insolvency. The

state's ability to minimize the negative impacts of financial crisis on business indicates that the state is still very much in control in the Malaysian political economy.

The Asian financial crisis has adversely affected the country's economic performance by slowing down Malaysian real GDP growth (Table 2). Although numerous fiscal policies stimulated the economy in 2000, several factors including the slowdown of the US economy, the slow growth of the domestic financial sector restructuring and the fear of terrorism have slowed down progress in 2001 (ICEM-A/P Regional Conference Report, 2001). Modest recovery was seen for the year 2002, with GDP of 4.2. Growth of 5.2 percent was forecast for 2003 but because of the low rise in exports, private consumption, and fixed investment in 2002, the forecast was trimmed to 4.7 percent. The economy was also negatively influenced by the run up to United State's military action against Iraq, possible increases in fuel prices alongside soft external demand (Economist.com, 2002).

Nevertheless, the Malaysian tourism industry, which accounts for about 7 percent of GDP and expanded at an annual rate of 40 percent during 1999-2001, does not seem to be adversely affected by the aftermath of the Bali bombings of October 2002 (Asia Development Bank, 2003). Despite the setback in 1998, the Malaysian tourism sector continued to be a major foreign exchange earner, ranking third in 1997 then second for the year 2000 and 2001 (after manufacturing). In 2001, tourist arrivals reached a record high of 12.77 million, surpassing the previous mark of 10.2 million set in 2000. The influx of visitors has enabled Malaysia to earn RM24.2 billion in tourism receipts as compared to RM17.3 billion registered in 2000. Visitors from Europe increased by 19.9 percent from 581,599 in 2000 to 697,332 in the year 2001 (TravelMag, 2002). Looking as far back as 1995, the increasing strength of tourism's contribution to the Malaysian economy can readily be seen (Table 3).

The existing political and economic context described above implies an increasing vulnerability of the Malaysian economy to international developments and issues. Nevertheless, state intervention is still evident and has proven to be capable of influencing the economic direction of the country. Interestingly, the overall resiliency of Malaysian tourism shows the strong potential role of this industry within the country. Its growing importance, especially in relation to generating substantial foreign exchange and employment opportunities suggests the need for more government attention to the improvement and sustainability of the sector.

The second macro environment analyzed was the presence and appreciation of BESR concept in Malaysia and the role of regulation in generating awareness. As a background, the following observation in relation to the opportunities to support clean production and environmental management in Malaysia, the United States – Asia Environmental Partnership (US-AEP, 2002: 21) gives a clue about the presence and appreciation of green issues in Malaysia:

Malaysia has entered a key stage in its development; it sees critical needs for incorporating environment into its industrial development program but is increasingly concerned about the costs. It aspires to the high technology, value-added industrial development of Singapore but has not adopted the strong regulatory and incentive systems Singapore has applied to achieve "clean and green" results. Demands for devolution have also complicated Malaysia's pursuit of that approach. But conditions are highly favorable in Malaysia for a policy shift to integrate environment and development.

The rhetoric of environmental issues has indeed had an early presence in Malaysia. The concern for the environment and sustainability is said to be 'firmly rooted' in the Third Malaysia Plan (1976-1980) with the introduction of two landmark legislative initiatives, i.e. The Environmental Quality Act, 1974 and Environmental Impact Assessment (The Government of Malaysia, 1997). Meanwhile, social aspects of sustainable development have concentrated on issues such as poverty, demographics, health, education and human settlements. With the intention of generating "sustained rapid economic growth" focusing on "equitable share of economic benefits" and to critically acknowledge the "need to continue to protect the environment and Malaysia's natural resource base" (The Government of Malaysia, 1997: 2-3), the state seems to have spearheaded the incorporation of environmental and social issues into the economy. Among initiatives taken include the incorporation of environmental and social issues in the NDP through the concept of 'balanced development' in the Sixth and Seventh (1990-2000) Malaysia Plans and the country's participation in global conventions to reduce atmospheric pollutants, protect biodiversity and preserve national heritage. Its commitment to social development is demonstrated through the initiation of the Malaysian Quality of Life Index, to provide a comprehensive assessment of developmental impacts on quality of life.

Despite early awareness and exposure to environmental protection issues, the Malaysian government has been relatively passive in reacting to expectations of environmental responsibility compared to Singapore for example. Perry and Singh (2001) give two reasons for this: 1) Unlike Singapore, the Malaysian economy is not built largely on the investment of foreign TNCs, therefore the country is relatively less affected by international pressure; and 2) the country is still in transition to an industrial society, with half of the population living outside urban areas and a quarter of the workforce working in agriculture. This provides obstacles to any attempt to change the economic focus from 'growth' to sustainability.

However, since the success of voluntary initiatives in developed countries was largely driven by the regulatory component (Utting, 2000), it can also be argued that business in a developing country such as Malaysia needs regulation of the market and strong local governance in order to maximize its contribution to sustainable development. At present, the country's regulatory component is still relatively ineffective due to the complexity and difficulty of monitoring and enforcing environmental laws. In Malaysia, environmental enforcement falls under the jurisdiction of the Department of Environment (DOE) in the Ministry of Science, Technology and Environment (MOSTE). The key roles of the department include setting standards, monitoring and enforcing pollution regulation in order to prevent, abate and control pollution or to enhance environmental quality (IMPAK, 2000). However, DOE has to rely on the cooperation and assistance of the individual states in order to perform its second and third roles. There are several reasons for this. Firstly, Malaysia has a federal administrative system. This gives the government significant power on policy, budgetary and regulatory issues. However, as land and water matters fall under the jurisdiction of the state governments, the enforcement and monitoring of environmental laws are the responsibility of the states. DOE's jurisdiction over major concerns such as air pollution and water quality is limited by the Federal-State system (US-AEP, 2002). In other words, environmental monitoring in Malaysia is not centralized thereby impeding effective environmental enforcement. For example, environmental regulations for hotels fall under the jurisdiction of the Ministry of Science, Technology and Environment (MOSTE) and are enforced by Department of Environment (DOE), solid waste management falls under the jurisdiction of the Ministry of Housing and Local Governments (MHLG) and enforced by the state's municipal council. Meanwhile, the regulations on tobacco and food safety (i.e. the Control of Tobacco Products Regulations and the Food Safety Act – two other regulations applicable to the hotel sector) are under the jurisdiction of the Ministry of Health.

Secondly, DOE has a limited number of staff and only a small budget<sup>iii</sup> to fulfill its roles effectively (Perry and Singh, 2001). The consequent shortage of monitoring and enforcement capacity has been identified as a critical problem in the current Malaysian environmental policy regime. This has led to rather complacent business attitudes towards environmental responsibility in general. Despite EQA 1996, there has been high incidence of non-compliance (Markandya and Shibli, 1995; Rasiah, 1999). Markandya and Shibli (1995) observe that apart from the large establishments in the rubber and palm oil sectors, industries in Malaysia are largely self-monitoring. The shortage of monitoring and enforcement is not going to change for the time being, due to a freeze on civil servant recruitment. In addition, the Economic Planning Unit intended to limit DOE's role to that of planning, and expand the states' role in pollution-control (IMPAK, 2000). Therefore, the states now assume more responsibility towards environmental monitoring and regulatory enforcement.

However, the US-AEP (2002) report reveals that environmental enforcement often becomes weaker at the local and state government levels. SMEs in particular, are neither adequately monitored nor expected to comply with regulations despite their potential as major environmental polluters (Rasiah, 1999). This may have contributed to business's lack of enthusiasm towards environmental (and social) protection issues, thus adding to the slow adoption of voluntary initiatives. In addition, the Ministry of International Trade and Industry (MITI) – a key player in industrial development and international trade in Malaysia – has not aggressively pursued clean technology and environmentally-linked economic policies, since environmental protection is seen more as a problem rather than an economic and social opportunity (US-AEP, 2002). This could perhaps explain why, despite the strong history of state intervention in the market as described earlier in this paper, the government seems to avoid a 'command and control' approach in pushing the environmental and social agenda onto business. Instead, voluntary business initiatives are encouraged, particularly in the manufacturing industry. One example is the MITI's assistance plan to help SMEs with less than RM 1 million a year in revenue to be ISO 9000 certified, and special tax allowances for pollution control for all industries seeking to establish waste treatment facilities (Global Environmental Forum,

2000). The DOE, while seeking to strengthen environmental regulations, is implementing progressive environmental programs that emphasize pollution prevention in the manufacturing sector. These initiatives include the establishment of an Environmental Fund, the promotion of environmental management systems, the adoption of environmental audits, and the introduction of new regulations for controlling chemical substances (Global Environmental Forum, March 2000).

The government's growing interest in private sector voluntary initiatives may be linked to two reasons. First, the growing international pressure especially on the electronic industries seems to have played a role as it is realized that not conforming to the demand of international pressure may make Malaysian business lose its international clients. In addition, business not exposed to international pressure may otherwise be greatly disadvantaged competition-wise once the higher standards are widely accepted (Perry and Singh, 2001). Second, the government's own lack of effectiveness in environmental monitoring and enforcement may have led to the perception that business voluntary initiatives may be an alternative that could lessen the regulator's own burden. As reported in IMPAK (2000: 2), the Director General of Environment Malaysia states that, "Over the years, the DOE has been exploring new approaches in environmental management as our continuous effort to protect our environment....the Department has for quite some time been promoting the concept of cleaner production as a more effective and feasible option to reduce pollution from industrial sources..".

Although no specific national policy existed to encourage BESR at the time of the fieldwork<sup>iv</sup>, the introduction of the Environmental Management System (EMS) for business to systematically manage and minimize pollution from their respective business activities, could be taken as an initial indicator that the business environmental responsibility concept has been recognized and addressed. Firms that are implementing EMS can get certified through the MS (Malaysian Standard) ISO 14001, which was first published in 1995 (Penang People's Report, 1999). Agencies represented in the Department of Standard Malaysia<sup>v,vi</sup> are the Ministry of Science, Technology and the Environment, the Standards and Industrial Research Institute of Malaysia, the Ministry of International Trade and Industry, the Ministry of Health, the Ministry of Agriculture, the Chemistry Department of Malaysia, the Malaysia Cocoa Board, the Rubber Research Institute of Malaysia, the Federation of Malaysian Manufacturers and Universiti Sains Malaysia (Global Environment Forum, 2002; US-AEP, 2002). For ISO certifications in Malaysia, only one certification body has been accredited by DSM: the Standards and Industrial Research Institute of Malaysia (SIRIM).

As EMS offers an avenue for maintaining regulatory compliance, moving beyond compliance and being proactive in environmental management (Welford, 2000; Watts, 1999), the standard is seen by the Malaysian government as an important indicator of voluntary business commitment to environmental improvement (Perry and Singh, 2001) and is aimed at organizations of various sizes, types and locations. In IMPAK (2000), the DOE's Director-General asserts that a cleaner production process that results from EMS adoption will ultimately benefit industries through resource optimization and environmental impact mitigation. This opinion seems consistent with the 'win-win' argument proposed by Porter and van der Linde (1995) in the literature. As the government aims to adopt ISO 14001 as the national standard for the production of manufactured products, it has been actively helping business, especially SMEs, even to the point of subsidizing the consultancy fee (Penang People's Report, 1999).

In the Eighth Economic Plan, the government seems to have recognized the role of business when emphasizing the intention to promote an increased use of environmental performance measurements and market-based instruments to complement other environmental management methods and regulations (MOSTE, 2001; United Nations Development Program, 2003). The government's stand on business voluntarism appears to be shared by the national industrial associations such as The Malaysian Business Council for Sustainable Development (BCSDM) and the Malaysian International Chamber of Commerce and Industry (MICCI). BCSDM is interested in clean technology that enhances competitiveness and efficiency and the effective use of EIAs (US-AEP, 2002). MICCI members are interested in the ISOs, particularly ISO 14001 due to concerns that competitors may use it as a competitive advantage at their expense (Perry and Singh, 2001; Global Environment Forum, 2002). This commonality of perception is probably the underlying reason for an on-going public-private partnership at the national level to promote voluntary initiatives in the manufacturing sector. BCSDM, the Environmental Management and Research Association of Malaysia (ENSEARCH – an NGO representing environmental scientists and managers), the Federation of Malaysian Manufacturers (FMM) and MICCI worked together, with the support of

the Ministry of Science, Technology and Environment, Malaysia (MOSTE) to launch the 'Anugerah Hibiscus Perdana Menteri' (formerly known as Hibiscus Award) in 1996<sup>vii</sup>. This is the premier environmental Award for business and industry in Malaysia to, "honor the contributions of the industry and business which have made the most impact in terms of environmental commitment" (press release, Prime Minister's Hibiscus Award, 1998: 1). Effectiveness notwithstanding, such cooperation demonstrates an increasing awareness at industry level about the importance of environmental protection, which has seen the initiation of a multilateral effort to address the issue at federal level.

As voluntary commitments on environmental issues are pushed almost exclusively on to the manufacturing sector, there is an apparent lack of focus on tourism. However, it is difficult to relate lack of government attention to business attitudes towards environmental and social issues. The reason is that even in the context of business in general, there has been lukewarm response on the issue despite existing governmental involvement and initiatives. For example, even though ISO 14001 was introduced 10 years ago, only 307 firms all over Malaysia were certified by 2001 (MOSTE, 2001). The lack of takers for ISO 14001 has been attributed to lack of confidence in the system, a high emphasis on monetary returns and lack of education on environmental and social issues (The Star respondent, pers. comm.). In addition, unlike quality concerns, environmental concerns may be of relevance mainly to industries in certain environmentally sensitive sectors such as chemicals, with relatively little effect on other sectors such as tourism.

In the context of Penang, only fourteen (mostly export-oriented electronics and electricity industry) of the total ISO certified firms in Malaysia were located in the state in 1999. The Shangri-La's beach hotels, Shell Malaysia Trading (a service firm dealing with petroleum products) and CCB Metal (providing recycling services) are the only service firms in Penang (and in Malaysia as a whole) that have received this award (Penang People's Report, 1999). This indicates that the implementation of EMS in Malaysia is generally lagging behind, especially for the service sector including hotels. The reasons behind this are not immediately clear, due to the lack of published materials on the matter. This research contributes in this regard, by uncovering factors and motivations that influence business responsiveness to BESR.

In spite of the slow acceptance of the voluntarism concept, another concept – corporate governance - has also been introduced to the Malaysian business community more recently. This is actually not a new concept in the business world, as it involves promoting improved and transparent management procedures, particularly in finance. In other words, it is essentially an extension of the management systems concept. It is difficult to relate corporate governance with BESR. Nevertheless, the concept is worth noting because it has had a significant influence in Malaysia. Lackadaisical attitudes towards the enforcement of corporate governance was identified as the major cause of the financial crisis in 1997-1998 which, it is claimed, 'awakened' the business from the slumber of mismanagement and unethical firm practices (The Star, 2001- various issues).

The introduction of these two concepts shows, at least at a superficial level, that Malaysia is basically 'on-track' about issues of widening responsibilities. In other words, the BESR concept is gaining momentum at least at the governmental and industry level, particularly in the manufacturing sector. The lukewarm response to and acceptance of the concept from individual businesses however, indicates that much is yet to be done to promote the BESR agenda. Nevertheless, the low number of firms in the service sector being certified suggests a tougher challenge to convince hotel and other service providers of the importance of BESR. On the other hand, Utting (2002) assures us that rising incomes, a significant presence of TNCs and official acknowledgement of the issue among local environmental pressure groups promise a more widespread presence of voluntary initiatives in the business environment of a developing country, such as Malaysia.

In contrast to the private sector's reluctant involvement in environmental responsibility, this sector is voluntarily supportive of official poverty alleviation policies and programs (United Nation, 2003). This may be linked to the country's political economy discussed above. As the government has been prioritizing social development and stability since 1971 (through the NEP), this and the state's strong control over the marketplace may have shaped the private sector's attitudes towards social issues. However, specific to the interest of this research, i.e. the labor issue, the private sector is evidently expected to comply with a number of labor-related regulations.

These regulations are upheld by a tripartite cooperation among the Ministry of Human Resource, the Malaysian Employers Federation (MEF) and the Malaysian Trade Union Council (MTUC) – a national workers union that has also been quite vocal in pushing the workers protection agenda at the government level. A ‘Code of Conduct for Industrial Harmony and Areas for Cooperation and Agreed Industrial Relations Practices’ has also been established since 1975 between MEF (then known as Malayan Council of Employers’ Organizations) and MTUC. An Industrial Court also exists to, “seek to right unfair terms of employment in collective agreement” (The Star, 2002 – various issues)<sup>viii</sup>. One success story involving the hotel industry in Penang is the case involving Siti Fawzia Mohd Razak, who was reinstated in her job and given RM 142,450 in arrears for being wrongfully dismissed by the Evergreen Laurel Hotel Sdn. Bhd. in 1997 (New Sunday Times, 2002).

Despite the existence of strong regulatory infrastructure on worker’ rights and welfare described above, the government has taken a cautionary stand in relation to workers’ demands. In addressing a workers’ rally, the Prime Minister Dr. Mahathir Mohammad has criticized the notion that workers’ demands can only be satisfied through strikes. Strikes, he said, have been proven to be extremely damaging to the economy in the form of chain reactions that would eventually close down businesses and industries and ultimately ruin the national economy. He stressed that Malaysians should preserve its way of resolving industrial disputes through discussions and negotiations, as these are more sensible than staging massive demonstrations. Demonstrations, he said, are a way to express anger, which may or may not lead to the achievement of any objective (The Star, 2002 – various issues). The Prime-Minister’s stand shows that trade unions are not encouraged to use the ‘test of strength’ (i.e. through boycotts or strikes) to present their demands.

In summary, the problem does not lie in the lack of regulations. The problem lies in the strength of those regulations in inducing responsibility in business. As present, the numerous regulations are weakly implemented and monitored due to the contextual environments discussed above. This raises a question about the ability of regulations to drive BESR, particularly in the hotel sector.

#### **Tourism Policies and Legislation**

Tourism is considered Penang’s second most important revenue earner after manufacturing, contributing nearly half of the state GDP each year (SERI<sup>ix</sup>, December 2001). Consequently, state tourism also benefits from the conducive and ‘business-friendly’ policies and incentives provided by the federal government. These include incentives for infrastructure building and hotel upgrading, pioneer status, an open sky policy, partial exemption of import tax to local tour operators and the expansion of tourist service expertise (Ministry of Culture, Arts and Tourism, 2001).

Conducive tourism incentives from the government also have spillover effects on the hotel sector leading to a proliferation of hotels built over the years (Tables 4 and 5), particularly during the period of 1990 to 1996. In Penang, the total number of hotel rooms available by the 2001 was 12,953 not counting the numerous service apartments and hostels operating as long-stay hotels.

As state tourism policies in Malaysia are essentially an extension of the federal policies (PDC respondent, pers. comm.), the lack of emphasis on environmental protection in Penang actually mirrors Malaysia’s national tourism policies and legislation. In 1993, Maverick Ltd. – a consulting firm - was hired to evaluate Malaysia’s tourism products and provide recommendations on how to improve Malaysia’s tourism offerings. The report produced from this exercise has identified and highlighted a number of environmental and social impacts of tourism. The report also recommended, among others, that the Federal Government through MOCAT endorse and promote the PATA Code for Environmentally Responsible Tourism at the national and state level. Under this code, tourism providers are encouraged to recognise the necessity to ensure a sustainable future, to meet the needs of the tourism sector today and the future and so as not to compromise the ability of this and future generations to conserve and preserve the environment (PATA Malaysian paper respondent, pers. comm.).

However, apart from this generic suggestion, the report fails to specify concrete suggestions on how to enforce the code (TDC respondent, pers. comm.). Lack of knowledge and understanding on how to promote responsible tourism, exacerbated by the low sense of urgency about the importance of responsible tourism, further slowed the incorporation of sustainable attributes into the planning and development of tourism in the country. As local business’s actions are generally dependent on governmental push, the lack of urgency at the government level has probably influenced the private sector’s attitudes towards the matter also.

Nevertheless, the Eighth Malaysia Plan (2001-2005: paper 15) has emphasized the formulation of “an overall policy thrust” to “achieve sustainable tourism growth” and realize tourism’s full potential of employment and income-generation benefits at national, state and local levels. However, unlike Thailand’s Eighth National Economic and Social Development Plan which specifies select strategies of interests in moving towards sustainable tourism practices (Box 1), the Eighth Malaysia Plan does not do so. The report has nevertheless acknowledged that the, “long-term success of the tourism industry hinges on the successful implementation of sustainable tourism development” (p.446). The incorporation of local community involvement, the conservation of natural areas and the sustainable development of hill stations and highlands are emphasized as key plans of action to achieve sustainable tourism development.

Judging from the lack of emphasis on tourism’s role in the Plan, it may be concluded that the role of hotel voluntarism in promoting sustainable tourism is not yet recognized in national tourism policy. In other words, the private sector is not expected to play a leading role in the promotion of sustainable tourism, beyond compliance of existing laws and regulations. There is also no plan to impose a more stringent environmental regulatory mechanism on the private sector. The Plan does, however, emphasize a ‘holistic and integrated approach’ that promotes public-private sectors’ cooperation to ensure the success of ‘tourism programs and events coordination at all levels’ (p.446). But, if previous experiences hold true, these programs and events would mainly be promotional in nature, rather than anything else.

It does need to be mentioned, however, that a substantial amount of capital has been allocated for ‘beautification/cleanliness and environmental protection’ (Table 6). This can be seen as a positive step towards prioritizing the environment in tourism development. The impact of this, nonetheless, is subject to the planning and implementation of effective programs to achieve the goal.

#### **Penang’s Socio-Economic Conditions Relevant to Tourism and the Hotel Sector**

With a land area of only 293 square kilometres, Penang accommodated approximately 59,000 people in 1997. With the population expanding each year, most of its diverse ecosystems including coastal forests, hill forests, sandy coastlines and mangroves, are now urbanised or peri-urbanised to accommodate roads and other infrastructure. Nevertheless, the city of Penang has been ranked number 10 in 1996, number 5 in 1997, number 6 in 1998 and number 7 in 1999 in Asiaweek’s “Quality of Life Index”<sup>x</sup> (Table 7). This means that Penang stands as one of the most prosperous, ‘liveable’ and attractive cities in Asia.

On the other hand, the quality of tourism attractions in Penang can readily be observed<sup>xi</sup> to be deteriorating. Poor planning and haphazard urban development underlie many of the problems. According to several hoteliers, many foreign tourists complain that although Penang literally means ‘the island of betelnut’, this type of tree seems to be quite scarcely planted in and around the island’s landscape, except in some of the resorts’ premises. Rather, city planners seem to favor high maintenance imported palm species and steel light-decorated coconut tree replicas. This, according to many hotel guests, reduces the natural aesthetics of the island compared to nearby islands such as Phuket and Langkawi. Rapid development of the property sector has also seen the paving of hillsides to make way for new housing areas especially in the Ferringhi Beach area, which was supposed to be the tourist belt of the island. Many hotel respondents indicate how disruptive the process of developing the area is to their guests and other holidaymakers.

In SERI’s (2003) report, lack of maintenance as well as low quality service have been identified as lowering the quality of tourist products in Penang. Lack of maintenance is reported as causing concern among Meeting, Incentives, Conventions and Exhibitions (MICE) operators because Penang has to compete with other better-equipped MICE destinations such as Kuala Lumpur, Singapore and Bangkok. In addition, issues of cleanliness, traffic congestion, poor public transportation, and limited new products are said to be impeding further growth of tourism in Penang.

In addition, a host of environmental problems are causing concern, particularly to beach hoteliers. Among the concerns are increasing beaches, air and noise pollution. Beach erosion in Batu Ferringhi, Penang’s most famous beach (where all the beach hotels except Mutiara Beach Hotel, are located) is adding to the deteriorating environmental conditions of Penang. Jellyfish problems, which started in the 1980s, are still prevalent, stopping tourists from fully enjoying a swim in the sea. Littering of the beach, especially after a public holiday weekend, and the tendency of hawkers and food traders to throw wastewater and sometimes litter into the open drains, are

enhancing sea pollution as most of the waste ends up in the rivers and eventually the sea. Noise and smoke emitted by the ageing public transportation system further worsen the situation, as these emissions often become the subject of complaints by many tourists (Penang In-shore Fishery Workers Association PIFWA, pers. comm.; various hotel respondents, pers. comm.).

There have been proposals to improve Penang's tourism. One emphasis is on the need to address the deteriorating conditions of many state-owned tourism attractions. For example, the state government has been urged to focus on the erosion and cleanliness problems of the public beaches (Ong, 2001). However, from personal observation, it seems clear that many privately owned tourism attractions (for example, the Snake Temple) are also in need of attention. Therefore, public-private cooperation appears to be an important avenue to improve state tourism. However, considering Singrist's (2001) observation on the lack of leadership for such initiatives, coordinated private-public cooperation to improve the state tourism products may be a long way off. A general lack of cooperation within the state tourism industry has also been reported by SERI (2003).

On the social side, the state is also facing a list of issues. Oversupply of labor, a nationwide phenomenon, is one of them. Declining job opportunities met by high numbers of retrenched workers, fresh graduates and SPM/STPM (national high school examinations) students flooding the job market has caused a glut of manpower that needs to be addressed urgently. In the year 2001, a total of 16,051 people in the state became unemployed due to closure of firms, retrenchment exercises and the implementation of voluntary separation schemes (VSS). The dominance of the manufacturing sector in the state further worsens the problem as this is the sector that lays-off the greatest number of workers (refer to Table 8).

On the positive side, retrenchment by the service sector including hotels is quite small (Table 8) compared to manufacturing, considering that it became the second biggest employer in 1999 (Table 9). One of the contributing factors for the low retrenchment is the increasing practice of multi-skilling by hoteliers<sup>xii</sup>. Nevertheless, this is a 'double-bladed' issue. Complaints received from workers has led the National Union of Hotel, Bar and Restaurant Workers (NUHBRW) to conclude that multi-skilling is an unfair practice that should be stopped. Multi-skilling provides employers with the benefits of less recruitment, at the expense of the existing employees. By not hiring new employees, existing employees are made to more work than usual, without any additional compensation. The practice also indirectly contributes to the grave unemployment problem faced by the state. In addition, the training given in a multi-skilling exercise often involves only the operational (housekeeping, bartending, front desk and others), rather than the management tasks (ex-employee respondent, pers. comm.). This means that multi-skilling does not effectively address the issue of labour shortages in the areas of managerial, professional and skilled labor highlighted by the WTTC (1994) as a key social issue in tourism.

The hotel sector however, has a different outlook on this issue. According to the Malaysian Association of Hotel Owners (MAHO) representative, multi-skilling ensures that each employee is adequately trained. Consequently, it reduces the need to retrench a worker if his or her job becomes redundant as the person can easily be reassigned to another task. Moreover, multi-skilling reduces the cost of training new recruits thereby saving money for the hotel. As times are tough, the practice is considered as making good business sense.

The economic slowdown and the rise of unemployment gave rise to another social problem that, according to many hoteliers, 'threatens' the hotel business – illegal street hawking. Penang's hawker food is cheap due to low overheads and is easily accessible due to sheer numbers and convenient locations. It is a draw particularly for domestic and regional tourists and is considered a form of 'informal service sector' that helps support tourism and enhance its productivity<sup>xiii</sup>. Increased demand from tourists for hawker food would mean less demand for (the more expensive) hotels' food and beverage (F&B) outlets. As hotels F&B has high overheads, losing customers to hawkers is considered a major problem.

On the other hand, offering food on the street means possible problems of food contamination, sanitation and garbage disposal and is disapproved of by The Health Department. Some of the illegal hawkers also tend to further reduce their overheads by practicing unhealthy cooking methods such as overusing and 'recycling' cooking oils. The scattered positions of the street hawkers may be strategic to their business, but can sometimes pose traffic hazard to motorists also. Efforts have been made to organize food hawkers in one complex, but this was not very successful, largely due to public demand for the more conveniently located street hawkers (Penang People's Report, 1999).

To the authority, street hawking “is a problem as well as a solution” (MPPP respondent, pers.comm.). The problems are as described above. The solution is that street hawking provides a viable alternative for those without employment, as a coping strategy. In addition, the Penang People’s Report (p.77) has concluded that, “consuming fresh, unpacked and locally-sourced food (as that offered by street hawking) instead of imported or packaged food closes the ecological cycle and is therefore good for sustainability”. Street hawking is also considered good for the community because it, “provides decent livelihood and self-employment opportunities”, maintains “vital traditions” of outdoors eating and traditional culinary, and is considered a good way to mobilize support for economic and social interests<sup>xiv</sup>.

These discussions demonstrate the diverse and complex nature of environmental and social issues facing the island in general. There are evidently many environmental and social issues, which provide hotel business ample ways with which to address its responsibility. But, the complexity of these issues also creates a deterrent. For example, should hotels bear the cost of cleaning up beaches littered by public users, not their own guests? Should hotels help the community (including the street hawkers), when these hawkers serve as their competition? There are obviously no easy answers to these problems unless there is a mutual understanding (government, private, the public) about the need to address each of the issues and an integrated, participatory management of them.

On the positive side, Penang’s physical and social environments may be facing a better future, as the state is currently one of the few places in Asia that has taken an initiative to change itself to be sustainable. The initiative involves the setting up of SERI in 1997. SERI is a non-profit organization whose main responsibility is to conduct socio-economic and environmental research for the state and to recommend policy options in line with principle of sustainable development. Among its first initiatives was the Sustainable Penang Initiative (SPI) project to address the challenge of sustainable development by organizing popular consultations, creating community indicators, and channeling the inputs into the state’s strategic development planning (The World Bank Group 2003; Nasution, 2001). The goal is to create networks and partnerships for sustainable development involving state, NGO, private sector, media and academia. The project is internationally driven with the support from the Canadian government and international agencies<sup>xv</sup>. If successful, it could act as reinforcing condition for hotel business to react positively towards its environmental and social responsibility.

## Conclusion

Acknowledging the inherent weaknesses of qualitative data such as the difficulty for subsequent research to confirm or moderate a research’s interpretations and conclusions (Bryman, 1988; Wilson, 1993), the findings presented in this paper has demonstrated the influence of conditions such as state-market relations, level of awareness, the state of policies and legislations as well as the environmental and social conditions on business reaction towards emerging issues, at least in the context of Penang, Malaysia. It has been shown that due to strong state control on the country’s economic direction in the past, national business in Malaysia have traditionally played a weaker, non-innovative role. Business directions have been dependent on government’s interventions, and this may have had some influence on business’s passivity towards emerging issues such as BESR. In addition, national businessmen do not traditionally thrive on the base of global competitiveness. Thus, they may fail to see BESR from global competitiveness perspective unless the state is directly and strongly involved in pushing the issue.

Although the country’s economy has opened up to direct foreign investment and has been integrated into the international trade, extensive state economic intervention still exists, as is evident in the rescue of ‘strategic economic sectors’ during the Asian financial crisis that involved saving many national conglomerates from total bankruptcy. This further demonstrates the continued dependence of national business on the government, which may have influenced business’s attitudes towards emerging issues. The reluctant adoption of ISO 14001 among Malaysian firms is a demonstration of such attitudes. In addition, since tackling social (if not environmental and social) issues such as eradicating poverty has always been the traditional responsibility of the government, it may be difficult for national business to see the relevance of addressing environmental and social issues in their day-to-day operations unless led and guided by the state.

Notwithstanding the fluctuation of tourism income, the resilience of the Malaysian tourism industry throughout terrible events such as the Asian Financial crisis and the Bali bombing shows that it is an important industry to sustain. The declining state of the manufacturing industry (mainly caused by the slowdown of the US economy) signals the increasing role tourism plays in becoming the country's major earner. But, tourism is a business that highly depends on the state of the environmental and cultural resources of the host country. Thus, the importance of addressing environmental and social issues can no longer be denied. However, in the context of Penang, Malaysia, change is unlikely unless and until the country's tourism policies and legislation is reviewed to focus more on tourism sustainability rather than growth. This is important because as Malaysian business has always been dependent on state intervention, its attitudes towards environmental and social responsibility and willingness to engage in voluntary initiatives depends on the state's policies and legislations.

For the hotel sector in Penang the importance is even more so for three reasons: 1) it is among the most laggard sectors in adopting ISO 14001; 2) its growth has been based on business-friendly policies and incentives, therefore pressure to address environmental and social issues may be perceived as a threat or obstacle to business. Lack of concrete suggestion on business's role in the achievement of 'sustainable tourism growth' in the Eighth Malaysian Plan further dampens possible business's involvement in environmental and social issues; and 3) the worsening socio-economic conditions of Penang require urgency from hotel business to recognize and accept their widening roles.

Although it is recognized that change is a difficult, time-consuming process, it is nevertheless necessary considering the deteriorating environmental and social conditions as well as heightened competition brought about by globalization, and the emergence of new cheaper destinations. Therefore, at least in the context of Penang, conditions mentioned above have to be conducive before hotel business can be expected to respond positively towards its environmental and social responsibility.

## References

Contact the Author for a list of references

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## End Notes

<sup>i</sup> This refers to Malaysian businesses and not multinational corporations. The *modus operandi* of the latter would be more influenced by the 'norms' of their respective countries of origin, rather than the country they are operating in.

<sup>ii</sup> The term 'Malaysian business' is used to refer to businesses that are established, owned and managed by local businessmen without any foreign or international participation.

<sup>iii</sup> In 2000, DOE had approximately 572 staff, of which 200 were inspectors (IMPAK, April – June, 2000).

<sup>iv</sup> From the Minister's (MOSTE) speeches posted in the internet, the government launched the Malaysia's National Policy on the Environment on 14 November, 2002 (after the author's fieldwork). It specifically mentioned the 'Role of the Private Sector: commitment and accountability' as one of its objectives. The policy provides guidance on 'sustainable business', especially in positioning themselves in the regional and global market place (MOSTE, 2002)

<sup>v</sup> The accreditation and assessment system in Malaysia started in 1969 with laboratory accreditation for the rubber industry sector by SIRIM Laboratory Accreditation Scheme (SILAS). SILAS is the predecessor of the national laboratory accreditation system schemes SAMM (*Skim Akreditasi makmal Malaysia*), administered by SAMM National Council. The Council later expanded to become the Malaysia Accreditation Council (MAC) to enhance the organisational infrastructure of Malaysia's accreditation system. In 1986, MAC was renamed Department of Standards Malaysia (DSM) which gives accreditation to laboratories, certification bodies, and personnel.

<sup>vi</sup> It is noted that the Ministry of Culture, Arts and Tourism is not represented in DSM. This information may contribute to the explanation why the adoption of standards, particularly ISO 14001 is not prevalent among hotel businesses.

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<sup>vii</sup> It is important to note that none of the tourism-related governmental or nongovernmental agencies are involved in this project. The interviews revealed a lack of knowledge or attention among hotel managers regarding the existence and/or benefit of the award.

<sup>viii</sup> However, a loophole in the existing system has been blamed for causing backlogs of cases in the Industrial Court. Specifically, it is the MHR's decision to restrict the Court's chairman contracts to short term ones, which is only open to renewal at the ministry's discretion. This is deemed as undermining the independence of the Court from suspicions of undue influence and pressure (*The Star*, 2002- various issues).

<sup>ix</sup> SERI is an institute responsible for initiating and conducting The Sustainable Penang Initiative, backed by several international development agencies – a project which addresses the challenge of sustainable development by pioneering a process of popular consultation for inputs into holistic development planning. The pilot phase of the initiative include several rounds of talks leading to the People's Forum and the publication of a People's Report in 1999 (SERI's Penang People's Report, 1999). SERI's position as environmental consultant to the state in the Penang Environment Conservation Strategy and as a secretariat to the Penang Educational Consultative Council provide the institution with access to state personnel and information, as well as many professionals, academic and social contacts. However, its dependence on government funding put it in a non-confrontational position. It has also been criticised as being inaccessible to grassroots, rural communities or non-English language communities.

<sup>x</sup> The index annually lists the 10 most liveable cities in Asia, and is probably the most widely known urban index for Asian cities (Khoo, 2001)

<sup>xi</sup> During the fieldtrip, I could observe several cases of what I consider as 'poor planning'. One obvious example is the building of a 20-story hotel apartment building in Ferringhi Beach on what used to be a green hillside. The building's height makes it seem out of place and to clash with the green environment surrounding the area, thus making it a real 'eyesore'. Another is the deteriorating condition of previously famous places of interests, for example, the Snake Temple has lost much of its charm due to lack of funding and maintenance. In personal communication with the hotel respondents, many complained about the loss of greenery to housing development, the increasing noise of the traffic, and air pollution.

<sup>xii</sup> Training existing staff with multiple skills so that the staff can accomplish multiple tasks whenever the need arises. For example, if someone in Housekeeping is absent or on leave or retrenched, someone from the front office can be asked to replace him or her. This reduces the need to hire a new employee to fill the vacancy

<sup>xiii</sup> Personal observation shows that even the Western tourists are increasingly drawn to hawker food. Some hotel managers voiced their concern over this (during interviews) because more and more tourists that stay in hotels prefer hawker food.

<sup>xiv</sup> Penang's hawker population appears to have significant influence over political parties on the island

<sup>xv</sup> The Sustainable Penang Initiative is organised by the Socio-economic and Environmental Research Institute (SERI) of Penang. The project is sponsored by the Canadian International Development Agency (CIDA) through the Canada-ASEAN Governance Innovations Network Programme (CAGIN), which is coordinated by the Institute On Governance (IOG). It is also supported by the United Nations Development Programme (UNDP) and the United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP).

# **Environmental Management Regimes for Emerging Asian Markets: What Works and What Doesn't**

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## **Abstract**

Command-and-control environmental management regimes, generally imported from western countries, do not work well in emerging market countries. This is largely because the demands for economic growth outweigh concerns for environmental protection at the various levels of practical decision-making. As a result, emerging market economies have two options. They can seek to strengthen their regulatory enforcement regimes so that environmental laws and standards, already in place in most emerging market countries, can actually produce a stabilized or reduced amount of environmental degradation. Or these same countries, especially ones that are so positioned with the necessary determinants, - a robust democratic process, open print media, available and affordable communications technology, and active public participation in governance, - can utilize a second option, a civil society environmental management regime. This alternative environmental management regime places greater responsibility on local citizen involvement and public-private partnerships as ways to maintain governmental accountability, increase transparency, and deliver positive environmental performance. This paper reviews various indexes of environmental degradation, discusses the limitations of command-and-control regimes for Asian emerging market countries, and shows how the basic elements of a civil society environmental regime are already in place in the Philippines.

## **Introduction and Purpose**

In November 2004 a series of storms struck the people in Central Luzon, Philippines causing the death of more than one thousand people and major crop losses. While these storms can be considered as natural events, poor environmental management magnified their impact on the Philippine people and their economy. Consistent illegal logging has denuded steep slopes, precipitating flooding, soil erosion and devastating mudslides. The Philippines, a typical Asian emerging market country, is losing more than 100,000 hectares of forest every year due to illegal logging and with it an estimated US\$1.8 billion worth of taxable revenue. Also lost are the ecosystem services that forests provide, such as air pollution traps, carbon sinks, flood buffers, and water filtration systems with replacement costs into the billions. What is happening in the Philippines is symptomatic of what is occurring throughout most of the emerging market countries of Asia. The World Bank estimates that the cost of environmental degradation for the region ranges from 4% to 8% of GDP, and concludes that "if current trends continue, environmental degradation could constrain growth and undermine the regions' potential for future economic development."<sup>1</sup>

This paper addresses the question of how environmental degradation can be reduced in Asian emerging market countries through proper environmental governance, defined as appropriate environmental management and regulatory regimes. For the purposes of this paper, emerging market countries are defined as countries that are labeled "developing market members" by the Asian Development Bank, and consists of countries such as the Philippines, Thailand, Malaysia, Vietnam, Indonesia, and Myanmar. The paper has four objectives. First, it shows the extent of environmental degradation in Asian emerging markets by viewing various indexes designed to measure environmental performance at the national scale. Second, it identifies the standard environmental management regime that currently is in place and how it is deficient in dealing with environmental problems. Third, it delineates the establishment of a modified environmental management regime that is more conducive to the unique characteristics of these emerging market economies and assesses the determinants necessary for its success. And fourth, it draws on case studies from the Philippines to illustrate how the basic elements of this modified environmental management regime already exist there and can be replicated throughout emerging market countries provided certain preconditions are met.

## Measuring the Conditions of Environmental Degradation

Asian populations are expected to grow by 700 million people over the next fifteen years. This increased population most probably will accelerate the environmental degradation existing in the region. It is estimated that 28% of the productive land resources have already been degraded. Steady urbanization has produced increased air pollution in the form of high levels of particulate matter and sulfur and nitrogen oxide emissions. And, as much as 20% to 30% of the solid waste in the developing Asian megacities is going uncollected, causing the clogging of storm drains, increased flooding, and stagnant pools contributing to various diseases.<sup>2</sup>

A representative sample of six emerging market countries in Southeast Asia was selected to illustrate varying conditions of environmental impact and stress. While all six can be defined as “developing economies,” Table 1 shows how each country is different in wealth as measured by Gross National Income per capita and is subject to different degrees of population pressure as measured by density per square kilometer.

TABLE 1 WEALTH AND DENSITY INDICATORS FOR SELECTED ASIAN COUNTRIES

Country	Gross National Product per capita	Population Density per sq. km.
Indonesia	\$710	117
Malaysia	\$3,540	24
Myanmar (Burma)	\$735	74
Philippines	\$1030	268
Thailand	\$2,000	121
Vietnam	\$430	247

Source: World Bank Development Indicators (World Bank, 2004)

All of these countries are dealing with similar environmental problems. Trying to determine the extent of environmental degradation is difficult, but a number of attempts have been made. The most direct way to measure environmental degradation in Asian emerging markets is to identify changes in forest cover over a ten-year period. This data is relatively easy to obtain since it can be retrieved either by national forest inventories or by remote sensing capabilities. And forests provide a key environmental resource. They maintain water quality, provide habitats for many species, buffer flooding and other natural events, and provide valuable ecosystem services. The World Resources Institute’s “Earthtrends” datasets are relatively easy to use for this purpose. As shown in Table 2, Asian emerging markets have lost significant amounts of natural forest cover. Some natural forest has been replaced with tree plantations and other reforestation measures, but generally forest cover is still a major problem area.<sup>3</sup>

An attempt to develop an Environmental Sustainability Index (ESI) has been undertaken by the combined efforts of the Yale Center for Environmental Law and Policy and the Center for International Earth Science Network at Columbia University. While this index does not measure environmental degradation directly, it can help identify the capacities of various countries to engage in environmentally sustainable practices. It establishes five components that can be benchmarked for environmental performance: environmental systems; reducing environmental stress; reducing human vulnerability; social and institutional capacity; and global stewardship. The ESI provides a tool that can evaluate a country’s potential to avoid major environmental deterioration. As shown in Table 2, most Asian emerging economies show a weak score. A score under 2 would indicate a high level of environmental sustainability, as exemplified by Sweden with a score of 1.38. The index does contain some bias as it weighs carbon dioxide emissions higher than factors such as water quality. The United States, for instance, scores only 2.34 on this index. But it does show a positive correlation between high environmental sustainability and countries with civil and political liberties, robust political debates, fair elections, free speech, an engaged press, and active non-government organizations (ngo’s).<sup>4</sup>

TABLE 2 ENVIRONMENTAL INDEXES FOR SELECTED ASIAN EMERGIN MARKET COUNTRIES

Country	Changes in Forest Cover 1990-2000 <sup>1</sup>	Environmental Sustainability Index <sup>2</sup>	Environmental Damages Index <sup>3</sup>
Thailand	N -29% T -7%	2.42	3.00
Philippines	N -19% T -13%	2.92	4.41
Malaysia	N -13% T -11%	2.53	3.06
Indonesia	N -14% T -11%	2.53	3.31
Vietnam	N -3% T +6%	2.72	3.93
Myanmar	N -14% T -13%	2.69	3.65

<sup>1</sup> Data compiled from World Resource Institute's "Earthtrends." N stands for percentage of natural forest lost. T stands for total percentage of forest lost or gained based on reforestation/ plantation forests.

<sup>2</sup>Data compiled from the 2005 Sustainability Index and configured to a score of 1 to 5 with 1 standing for the best score and 5 the worst score.

<sup>3</sup>Data compiled from the Environmental Vulnerability Index based on a score of 1 to 7 with 1 being the best score and 7 the worst score.

Another index established to benchmark environmental degradation on a national scale has been the Environmental Vulnerability Index (EVI). This index was designed to identify a country's vulnerability to natural shocks. An Environmental Degradation Index (EDI) was established as a sub-index of the EVI in order to measure environmental degradation more precisely than the ESI and more comprehensively than the simple Earthtrends dataset. The indicators for this dataset are indicators of biophysical system damage, loss of diversity, extinction of species, natural vegetation loss, and fishing. All of the selected Asian emerging market economies exhibited a high environmental damages score.<sup>5</sup> It is evident from all three environmental indexes that Asian emerging market countries are performing poorly relative to environmental performance. The key questions are: why is environmental degradation so high and how can environmental performance be improved?

## Contrasting Environmental Management Regulatory Regimes

In the attempt to limit environmental degradation, Asian emerging market countries have established environmental management regimes designed to foster environmental protection. The way that most Asian emerging market countries have dealt with environmental governance is to develop a single central agency entrusted to enforce national environmental laws, an environmental management regime often referred to as "command-and-control." This regulatory regime has generally been exported to developing countries from the West, where it has been highly effective. In the United States, for instance, it has contributed to a significant decrease in environmental pollution over the last 35 years since its inception.

The "command-and-control" regulatory regime has four basic characteristics as described in Table 3. It calls on a designated governmental agency to administer environmental protection. It relies on the use of environmental impact assessment for decision-making. It establishes environmental protection through national laws that address specific environmental sectors. And, its regulatory apparatus relies on reports, permits, and fines for non-compliance. While many Western countries can meet the basic requirements of the command-and-control approach, albeit with different capacities, most Asian emerging market countries have difficulty in implementing this regime with success. In such countries, economic development considerations take precedence over environmental protection as investment decisions often cater to the narrow and immediate needs of investors and economic market determinants. Also emerging market countries often lack the funding to engage a well-trained and well-paid staff, a basic determinant for a well-functioning western-style "command-and-control" regulatory regime. In short, emerging market economics are clearly not equipped to deal with the prospects of further environmental deterioration. A report of the Asian Development Bank (ADB) stated: "the root cause of the poor state of the environment (in Asian member countries) was a failure of policy and institutions."<sup>5</sup>

TABLE 3 THE COMMAND-AND-CONTROL ENVIRONMENTAL REGULATORY REGIME

Characteristics	Limitations
Based on a designated governmental agency to administer environmental policy and protection.	Not multi-sectoral and does not evaluate how different agencies are impacting the environmental through conflicting policies.
Relies on the use of the environmental impact assessment tool for decision-making.	Is narrow and does not evaluate basic alternatives.
Establishes environmental protection through national laws that address specific environmental sectors, i.e. air pollution, water pollution, etc.	Does not link environmental policy to other national policies, particularly economic policy. Is not flexible and does not promote technological innovation.
A system of environmental enforcement that relies on a reporting, permitting and fine-based environmental protection system.	Requires the integrity of the regulated entity for truthful reporting and adhering to permitted standards. Fines for dysfunctional behavior often does not compensate for environmental damages

#### A Civil Society Environmental Management Regime

While laws and public environmental enforcement regimes are important, they need to be supplemented with a regulatory regime that is more appropriate to the actual conditions that exist in many Asian emerging market countries. The Philippines, for instance, is considered to have the most comprehensive forestry regulation in the region, but has also one of the fastest shrinkage in forest cover.<sup>6</sup> This supplemental or modified environmental management regime, referred to in this paper as a “civil society” environmental management regime in order to differentiate it from the traditional “command-and-control” regime, has the following characteristics. It is based on a decentralized governance structure that places greater responsibility on local government for environmental protection. It requires the wide participation of non-government organizations (ngo’s) in the formation and implementation of environmental policy. It utilizes modern communications technology for mobilization, public message conveyance, linkages between groups, and dissemination of governmental accountability. It emphasizes a multi-sectoral approach to environmental policy where environmental protection is delivered through a national set of guiding environmental sustainability principles. And lastly, it relies on significant private sector participation and public-private partnerships to achieve environmental goals.

TABLE 4 CIVIL SOCIETY ENVIRONMENTAL MANAGEMENT REGIME

Characteristics	Requirements/Determinants
Decentralized governance structure that places greater responsibility on local government for environmental protection.	National government legislation or local government code.
Significant participation of NGO’s in environmental policy.	International NGO and Foundation funding support to national, regional and local NGO’s.
Reliance on governmental accountability systems in place to ensure equity and transparency.	Technical assistance support for the establishment of performance measurement systems delivered over wide internet access.
Increased public participation in environmental policy and protection through the internet, mobile phone communications and a free print media.	Inexpensive mobile phone connections and text messaging costs, and easy and inexpensive access to the internet.
Greater reliance on public-private partnerships and a cooperative management style or shared governance between NGO’s, the private sector and government.	A strategy of industrial ecology integrated into environmental policy and an increase in transparent privatization.
Multi-sectoral approach to environmental policy where environmental performance goals are linked to economic development in public policy.	Establish a set of environmental guidelines similar to Agenda 21 through a national Environmental Code that is used to review all public policy decisions and decision-making.

For emerging market countries to improve environmental performance it is necessary for them to move toward a civil society environmental management regime. To do this, emerging economics must show a certain capacity by meeting a set of preconditions as seen in Table 5. First, national legislation must devolve some powers from the central government to regional and local governments. Second, a national set of guiding principles for environmental sustainability should be integrated into all policy areas, including economic decision-making. Third, a market for inexpensive communication technologies, i.e. internet, mobile phones, needs to be expanded through open competition. And finally, greater transparency should occur by increasing public involvement in environmental governance and by creating governmental accountability systems that measure performance and disseminates this information through the print media and internet. Table 5 reveals the present capacity of the selected emerging market countries to meet the requirements for the implementation of a civil society regime. Even a cursory analysis of Table 2 correlated with Table 5 shows that a emerging market economy like the Philippines, which scores poorly on the environmental degradation index, is well-positioned and has the necessary capacity to improve its environmental performance through adoption of a civil society regime.

TABLE 5 CAPACITY FOR CIVIL SOCIETY ENVIRONMENTAL MANAGEMENT REGIME

Country	Political Rights Score <sup>2</sup>	Civil Liberties Score <sup>2</sup>	Regulation Score <sup>3</sup>	Transparency <sup>4</sup>	Weighted Score	Capacity
Thailand	1.5	2	3	3.2	2.43	High
Philippines	1.5	2	4	3.7	2.8	High
Malaysia	3	3	3	2.5	2.88	High
Indonesia	2	3	4	4	3.25	Medium
Vietnam	5	5	5	5	3.7	Low
Myanmar	5	5	5	4.15	4.79	Low

<sup>1</sup>Scores based on 1 to 5 value for each category with 1 being the best and 5 being the worst.

<sup>2</sup> Data for Political Rights and Civil Liberties compiled from Freedom House's Freedom in the World, 2005

<sup>3</sup> Data for Regulation compiled from the Heritage Foundation's Index of Economic Freedom.

<sup>4</sup> Data for Transparency from the 2004 Transparency International Corruption Perception Index.

## The Philippines: A Case Study

The Asian Development Bank's *Asian Environment Outlook 2001* reported that developing countries in Asia have placed too much reliance on their environmental regulatory bodies and have not incorporated environmental sustainability goals into broader public policy objectives.<sup>7</sup> This has produced a significant disconnect between environmental risk and more popular goals of modernization and economic development. In the Philippines, the Department of Environment and Natural Resources (DENR) is the primary agency responsible for environmental protection and conservation of natural resources. This regulatory regime is largely command-and-control. It was established in 1975 under Presidential Decree No. 1151, otherwise known as the Philippine Environmental Policy. It targeted environmental impact assessments as a main tool for environmental decision-making. After PD No. 1151, a whole spate of environmental laws were passed, such as the National Integrated Protected Areas System Act, Clean Air and Water Acts, Toxic and Hazardous Substances Act, and the Ecological Solid Waste Management Act.<sup>8</sup>

Under these environmental acts, DENR's main functions were to provide environmental compliance certificates, monitor environmental impact assessments through the Environmental Management Bureau (EMB); levy fines; and issue cease and desist Orders through the Pollution Adjudication Board. This regulatory regime does not always work smoothly. At times, DENR finds itself at odds with other governmental bodies that champion economic development over environmental considerations. Also, fines are often not punitive enough to discourage polluters; enforcement is inconsistent; and general departmental environmental considerations have largely prioritized resource conservation issues over industrial pollution issues.<sup>9</sup>

The limitations of the command-and-control regulatory regime are well known in the Philippines. As a result, various initiatives are moving that country toward a modified command-and-control model that embraces the

basic tenets of a civil society regime. Five concepts essential to the civil society regime are presented below within the context of their current implementation in the Philippines.

**A Set of Environmental Principles: Philippine Agenda 21**

In order to deal with the inefficiencies of the command-and-control regulatory regime, civil society groups have organized to implement a new Environmental Code based on Philippine Agenda 21, a local version of the global sustainable strategy originally drawn up in the Rio Earth Summit in 1992 and subsequently promoted in the follow-up Johannesburg meeting. Groups such as Earthday Network Philippines and the Council for Sustainable Development are spearheading attempts to produce a Civil Society Environmental Management Regime based on Philippine Agenda 21. They are interested in modifying the existing fragmented and sectoral-based regulatory regime into one based on a “clear set of unambiguous principles and ground rules agreed to by all stakeholders (government, civil society and the private sector) during their crafting.”<sup>10</sup> These principles present ecosystem priorities that are “non-negotiable,” basic tools for assessment and compliance, and the rights and obligations of stakeholders. Hence, through Philippine Agenda 21 and the Philippine Strategy for Sustainable Development, the goals of environmental sustainability have been disseminated through Philippine national planning. The Philippines has clearly taken a multi-stakeholder approach to national development planning and decision-making.<sup>11</sup> In fact, Philippine Agenda 21 has been incorporated into Plan 21, the Long-term Philippine Development Plan and establishes the basic framework for the Civil Society regime.<sup>12</sup>

**Decentralization of Authority: The Philippine Local Government Code**

One of the most important features of a Civil Society regime is equitable governance, where local Governmental authority over the environment and community participation is emphasized. Decentralization of political authority in the Philippines occurred with the passage of the Local Government Code of 1991.<sup>13</sup> In this far-reaching legislation, local government was assigned major responsibilities in creating their own revenue base as well as initiating and promoting their own environmental management programs. This was a significant devolution of political authority from the central government to the localities, and it has produced significant results. It has transformed local officials into development managers and integrated various spheres of governance, i.e. social services, finance, economic development, and environmental management.<sup>14</sup> It has also provided for people empowerment and local accountability through the involvement of NGO’s and People’ Organizations (PO’s) in management processes. And finally, it has promoted greater accountability from local officials on issues relating to environmental quality through petitions, initiatives, and the recall of local officials.<sup>15</sup>

**Industrial Ecology: Philippine PRIME**

An important part of the Civil Society regime is to incorporate industrial ecology into public policy. A concept that originated in Denmark, it has come to the Philippines by way of the Private Sector Participation in Managing the Environment (PRIME), an environmental project of the United Nations Development Program in conjunction with the Philippine Department of Trade and Industry and other public and private organizations.<sup>16</sup> The program was a new way for the Philippines to engage in environmental management by encouraging market forces and private company participation in environmental policy. It has as its “selling point” the concept of making environmental management as much a “profit center” as a “cost center.” It was also viewed as an alternative to a command-and-control regulatory regime that was inconsistent and clearly unable to deal with the immensity of environmental problems. One of its main features was creation of “ecological industrial parks,” a cluster of firms working together to reduce the use of raw materials, reduce waste, conserve energy and water resources, and reduce transportation requirements. It utilizes the idea of the industrial estate as managers of environmental quality through the use of by-product exchanges and other logistical information mechanisms. Incentives for firms to join the program rested in the expectation of expedited environmental clearance certificates and streamlined Board of Investment registration.

As part of its strategy to integrate a concern for environmental protection into economic policy, the ecological industrial park module of Prime was placed in the Board of Investments (BOI), a governmental body traditionally concerned more with economic growth rather than environmental quality.

The theory was that under the direction of the BOI the program was seen as less regulatory and more business-friendly. The goal was to integrate a sense of environmental management systems into industrial park business plans.

Five industrial estates were selected for the pilot program: Camelray Industrial Park; Laguna International Industrial Park; Light Industry and Science Park; Laguna Technopark, Inc.; and LIMA Technology Center. The economic costs of storing, treating and disposing of the waste from these five parks was estimated at more than nine million USD annually. A by-product database was established for 80 companies in the five estates to facilitate a waste-trading network. The managers of the five estates created an “Inter-Estate Working Group” that facilitated the program’s private sector focus and reliance on good business practices. The problems associated with the program are its poor coordination with different governmental authorities and its reliance on inconsistent governmental guidelines. Issues such as how to classify by-product waste from a customs perspective and differences between authorities responsible for waste hauling and waste treating all have produced major barriers to sustainable waste trading.<sup>17</sup>

For all its problems, these ecological industrial parks hold out the notion that industrial activities can be effectively managed to reduce environmental risks. Carmelray Industrial Park, which covers 230 hectares, already has 50 firms that are largely Japanese semiconductor manufacturers. Carmelray advertises its environmental management system as part of its corporate policies and seems to be so successful that other industrial estate managers are using it as a model for real estate marketing. Unfortunately, 70% of industrial facilities in the Greater Metropolitan Region lie outside of industrial estates. This means that if the program is to be successful it must extend to small and medium-sized firms and their trade groups and local government authorities.<sup>18</sup>

#### **Increased Participation of NGO’s in Environmental Governance**

Civil society organizations are increasingly playing a major role in environmental management in Metro Manila.<sup>19</sup> An example of one community organization that has strengthened recycling and encouraged the development of jobs in poorer communities is the Metro Manila Federation of Environmental Cooperatives, or Linis Ganda. Eco-aides are trained to buy recyclables from over 1.5 million households in Metro Manila and sell them to junk shop owners for reuse or recycling. They are responsible for an annual collection of 100,000 tons of recyclable materials, accounting for 4.3% of Metro Manila’s daily garbage output. There are over 2000 eco-aides supplying 572 junk shop members, who then sell to consolidators who ultimately transfer the materials to paper mills, glass factories, and plastics and metal plants. The Linis Ganda aids in the training of eco-aides who work directly for junk shop operators, and provides loans to junk shop operators for daily operations.<sup>20</sup>

Globalization is not just an economic phenomenon but a social one as well. Recent attention has been directed at how globalization is producing new communication tools, particularly text messaging and the internet, that have given the poor and under-represented in city-regions a new access to power and influence.<sup>21</sup> In the Philippines, 150 million text messages are sent out every day by mobile phone users, most of these in Metro Manila, at minimal cost that makes it a powerful tool for community organization. In fact, community organizing has gone global. When the Metro Manila Development Authority proposed a landfill in the towns of Candelaria and Tiaong in Quezon province that locals opposed because of its damaging consequences to the region’s coconut industry, a local environmental legal defense center received at least 150 signatures on a petition drive against the landfill from locals living abroad in such diverse locations as California, New York, and Canada.

No better example of the empowerment capacity of the new communication technologies is the case of Payatas, where one of the most notorious open dumps of Metro Manila is located. The barangay of Payatas is located about 20 kilometers from downtown Manila, where 3000 tons of garbage is trucked in every day, mostly from affluent municipalities such as Makati. Approximately 100,000 people or 18,000 families live around the dump, with an average income of USD 4 per day and an infant mortality as high as 30%.<sup>22</sup>

On July 10, 2000, after seasonal rains, a trash-slide occurred that killed or buried over 500 people. This tragedy gained international attention and acted as a catalyst to mobilize the poor for greater participation in metropolitan governance and to create strategies that would elevate the poor. In conjunction with NGO’s such as the Vincentian Missionaries Development Foundation and other faith-based groups, a major rescue effort was undertaken through the use of community volunteers.<sup>23</sup> People’s Organizations (PO’s), such as the Scavengers Association, multiplied as self-help representatives of the poor, and developed strategies that turned tragedy into a model of urban poor self-help.

First, PO’s used the courts to litigate, both criminally and civilly, against governmental officials for allowing the dump to increase to dangerous proportions by accepting solid waste from unauthorized

municipalities. Second, PO's, with the technical assistance of NGO's, formed international alliances with slum dwellers from India, Indonesia and Sri Lanka, where in August of 2000 a international meeting was held in Manila to showcase housing models and redevelopment plans.<sup>24</sup>

Through the active lobbying and community organizing of these PO's, the Asian Development Bank and the Japan Fund for Poverty Reduction both offered bridge financing for the development of new housing and the acquisition of land.<sup>25</sup> The Philippine Community Mortgage Program was utilized in this program to fund basic services such as water supply, sanitation and roads, provided loans for small business formation (micro-finance), and helped establish a community-based health insurance program. This outside help, while significant, was only a small part of an established program in Payatas where the highly organized Scavenger's Association had already created a micro-finance program.

The utilization of the media for visibility; the use of new informational technologies such as the internet and text messaging to coordinate activities and gain wider support, all testify to the increasing sophistication of the poor in the megacities of the developing world. The lessons from the Payatas experience are clear: the poor have the capacity to organize effectively and can astutely use the media and telecommunications to achieve equity and a share in governance; new technologies can be used by the poor to effectively lessen the advantages of metropolitan elites, both technological and traditional; and open informational pathways allow the poor to get their message out, thereby increasing their social capacity in civil society.<sup>26</sup>

The results of this empowerment are impressive. It demonstrates that the poor, who constitute a significant block in the Philippines, can be actively represented in a civil society regime and have an input into environmental policy. In the case of the open dump of Payatas, it has been reduced, as waste is now diverted to newer sanitary landfills. The area of the tragedy has been leveled, covered with a thick layer of earth and transformed into a residential area where the former squatters now have tenure rights coupled with on-site service upgrading.<sup>27</sup>

#### **Governmental Accountability: Local Government Performance Measurement System**

It is impossible to have a Civil Society Regime without significant governmental transparency. One hopeful project is the development of an internet-based performance measurement system that will encourage local governmental accountability. In the early and mid 1980's the Philippine Department of Interior and Local Government (DILG) developed a pilot project to establish a local performance productivity system based on the quantity of services offered by local governments. This project languished until the late 1990's when regional officers of DILG called for a tool that could make them more relevant to Local Governmental Units (LGU's) since the 1991 Governmental Code significantly altered the relationship between the national government and LGU's. This resulted in the development of two performance measurement instruments. Development Watch was developed as a software package that established indicators for largely social and environmental health through a citizen satisfaction index. This performance measurement tool was broadened with the creation of the Local Government Performance Measurement System (LGPMS) that added new performance sectors in governance, administration, and economic development. It is currently being field-tested in over 100 LGU's and is conceived as a self-assessment tool that can determine the capacities, service delivery and development conditions of local governments. Its goals are to encourage better LGU management; establish an empirical basis for allocating resources into policy reform; balance accountability with authority; and institutionalize a culture of performance management.<sup>28</sup>

The LGPMS is an internet-based system that has the ability to capture data on-line. Web-based capture forms are used to input data on-line and it is stored on a central database server. Passwords are used to log on and LGU's can assess two types of performance reports: one based on a "wheel-of-fortune" format and another based on a "spider-web" format. The data input format starts with five performance areas that divides into eighteen service areas, which further divides into indicators and sub-indicators.

The significance of the LGPMS system is its ability to generate up-to-date data and analysis of the strengths and weaknesses of each LGU in five performance and eighteen service areas. Through generated reports, each LGU has the capacity to allocate scarce resources and initiate reforms in deficient areas. By evolving from the Development Watch format that targeted social and environmental measures to the LGPMS format that gives equal weight to financial and budgetary concerns, it is linked to the real-life perspectives of many local governmental officials. Yet, because it links environmental performance indicators to financial and economic indicators through a measurement report, local officials must by necessity see their overall performance linked equally to both

environmental management and economic growth sectors. Hence, one sector cannot be isolated at the expense of another sector. Greater transparency and local governmental accountability is enhanced, a basic feature to any civil society regime.

## Conclusion

The main premise of this paper is that command-and-control environmental management regimes, generally imported from western developed economies, do not work well in emerging market economies. This is largely because the demands for economic growth outweigh concerns for environmental protection at the various levels of practical decision-making level. As a result, emerging market economies have two options. They can seek to strengthen their regulatory enforcement regimes so that environmental laws and standards, already in place in most emerging market countries, can actually produce a stabilized or reduced amount of environmental degradation. Or these same countries, especially ones that are so positioned, with the necessary determinants, - a robust democratic process, open print media, available and affordable communications technology, and an active public participation in governance, - can utilize a second option, a civil society environmental management regime. This alternative environmental management regime places greater responsibility on local citizen involvement and public-private partnerships as ways to deliver governmental accountability, increase transparency, and deliver positive environmental performance. As one writer notes in a recent article in a Philippine newspaper:<sup>29</sup>

*“There is one crucial tool (for protecting forests) that has not been fully utilized over the years. Since the government does not have enough resources to patrol and safeguard our forests with the current ration of one forest ranger for every 4,000 hectares, local involvement is a must. The need for active community participation to ensure protection of forests has been neglected in many localities. Illegal logging activities are unlikely to happen without the knowledge of local residents. They know exactly where illegal logging is rampant and who are responsible for cutting trees in their respective areas. If local residents are well-informed on the importance of trees for ecological balance, then there will be greater pressure on local authorities, military and police officials to carry out their job of safeguarding our forest resources. Also, there is less opportunity for corruption, which is said to be one of the main reasons why illegal logging has thrived.”*

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## End Notes

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# **Environmental Management and the Sustainability of Tourism**

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## **Abstract**

**In view of the fact that tourists have to visit the place of production in order to consume the output, it is inevitable that tourism activity is associated with environmental impacts. The highly polarised nature of development may generate intense environmental problems. Depletion of natural resources can result in water shortages; create great pressure on other local resources like energy, food, etc., that already might be in short supply or destroy beautiful scenic landscapes. Pollution from tourists has impacts on the global level that disturbs the local population of the caused community. Solid waste and littering in the nature spoils the natural environment. The more physical impacts are degradation and loss of wildlife habitats and of scenery, and disturbance and erosion of the local ecosystem caused by clearing forested land and construction of tourism facilities and infrastructure. Conservation of natural, cultural and built environment is an important motivation for the initiation of development projects. Moreover, some projects tend to deter locals from illegal use and overuse of natural resources as well as they try to integrate protected areas in development plans.**

## **Introduction and Overview**

The growth of tourism as the world's fastest growing industry in the 21<sup>st</sup> century has brought with it major environmental problems, which need to be addressed and resolved in order to achieve sustainability on the short and long term. Land degradation, pollution, desertification, waste, damage of species and inadequate utilisation of natural resources have caused many natural resources to be endangered or even destroyed.

On the national side; fragmented legislation, ineffective enforcement, inadequate health and safety and poor environmental practices for pollution and waste management and more importantly the lack of the involvement of people have contributed to loss of many natural resources.

As a result of natural depletion in many tourist destinations internationally, the world had gathered to discuss and present solutions to eliminate inadequate utilisation of natural resources. As a result many international protocols, conventions, and reports have been produced involving major governmental and nongovernmental bodies addressing the environmental crisis and providing solutions. In 1992, the world's efforts have resulted in producing the most significant document, where 178 countries gathered in a global conference in Rio and agreed on Agenda 21, which is considered to be an ideal blue print providing guidelines and recommendations to serve sustainable development and environment as a vital component of modern tourism.

In 1994, at the end of the apartheid era the South African announced its ambitious campaign to make tourism its number one industry in the creation of jobs and generation of foreign exchange earnings. South Africa following its transition to the democratic stream has always realised the importance of tourism as vehicle for poverty alleviation, economic growth and achieving socio-economic equality. Part of the South Africa transformation were major changes in its legislative and institutional structures, which involved drawing new legislation to serve the economic activities one of which is tourism with a special focus on environmental protection laws. The environmental management legislation involved both inter-governmental and public-private partnerships in order to promote and maintain the ecosystem services to serve the natural assets.

The environmental management actions by the South African government as well as public and private sectors have contributed significantly in producing and maintaining adequate utilisation of resources, elimination of air and water pollution, and biodiversity. The environmental management legislation has also enforced regulations regarding the consuming of water and energy, land use, reduction of pollution and protection of habitats and species.

Agenda 21 has been incorporated in the government legislation as guidelines to ensure adequate utilisation of natural resources. Furthermore, the concept of accreditation scheme has been implemented to provide standards and performance indicators for sustainable tourism. South Africa has at the stage no adequate certification scheme to provide guidelines and criteria to assess the tourism organisations' competencies and service delivery standards. Moreover, it has been noted through the research that the private sector has limited access to investment in most tourism development areas particularly protected areas, the government organisations and public sector have sole mandate to invest and manage protected areas with outsourcing of certain types of expertise from the private sector.

Tourism in South Africa has been dependant to a large extent on environment; yet, major environmental needs have received no proper attention to preserve the environmental assets for sustainable tourism today and for the new generations of tomorrow.

This paper provides a critical analysis of the current environmental management strategies in South Africa, providing recommendations to improve environmental management techniques to achieve sustainable tourism.

## **Tourism Environments**

It must be acknowledged that tourism takes place in a diverse range of environments; a landscape to observe and enjoy, activities to participate in, and experiences to anticipate or remember. Lew (1987, 359) had identified three broad approaches towards developing typologies that encompasses ideographic, organisational, and cognitive perspectives. The first and most important of these frameworks is the ideographic approach, which focuses on the concrete uniqueness of "environment" and, as such, stresses the differences between nature-orientated and human-orientated attractions.

The organisational approach focuses on the spatial characteristics of size and scale, carrying capacity, and the temporal nature of attractions. Finally the cognitive approach stresses classifications relating to tourist perceptions and experiences.

Each of these three main bases of classification reveals important characteristics of tourism environments, which in turn can contribute to understanding of developments and their impacts on the destination.

### **Mass Tourism**

According to Williams and Shaw (1997) mass tourism involves the movement of large numbers of tourists with relatively little surplus income. High gross income is yielded from relatively low expenditure per capita. Mass tourists are seeking more and more exotic holiday destinations. Given the income constraints, these can only be provided at relatively minimal levels of services and facilities.

This trend of mass tourism provided an ideal situation for South Africa as an affordable destination for many of developing countries, attracting large millions of people who seek affordable services and facilities. In addition, South Africa has the potential to attract an equal number of people from developed countries for many reasons, of which its political stability, beaches, richness of culture and natural sites.

### **Urban Tourism**

Jakle (1985: 246) states that tourists and visitors approach cities with definite expectations of its signs and attractions. Such expectations are formed not only by a variety of social experiences and information sources which produce distinct images of urban areas, but they also vary with the type of visitor.

Urban tourism can be also an ideal source of attraction for foreign tourists to experience its cultural and social heritage. Such trend will enable the country to create more jobs for locals and enhance local communities' participation in achieving tourism growth.

Policy-making process surrounding urban tourism projects is led by the demands of private investment. Clearly, this is not always the case, since there are a number of possible outcomes from mixed public and private tourism ventures. However, what appears to be happening is a shift towards urban tourism and leisure schemes becoming more institutionalised as they become strongly linked with economic policy. (Williams and Shaw: 1997: 207)

### **Rural Tourism**

Williams (1997) states that in the late twentieth century the growth of incomes, leisure time and mobility amongst all except the underclass has led to more intense demands being made on rural areas as locales for recreation and

tourism. At the same time, the social construction of rural areas has undergone further, often subtle changes. As a result, the conflicts over the use of the wilderness and national park areas are being replicated more widely throughout the tourist destinations.

The construction of the countryside as a zone of consumption necessarily results in a number of sharp contradictions. The first of these is the reality that in most tourist destinations, the vast majority of rural lands are in private ownership, which severely constraints accessibility. Second, there are many social constructions of rural areas. Such factors provide a potential for host-guest conflicts.

Rural and farm tourism can provide more jobs of rural communities as a secondary source of income, which will in turn reduce the unemployment rate in South Africa (Williams and Shaw, 1997: 231)

#### **Ecotourism: Planning and Development**

Ecotourism is one of the fastest growing trends in the worldwide tourism industry. The term ecotourism refers, as defined by Ziffer (1989), to a trend of tourism that is managed by the host country or region which commits itself to establishing and maintaining the sites with participation of local residents, marketing them appropriately, enforcing regulations, and using the proceeds of the enterprise to fund the area's land management as well as community development (Ziffer, 1989).

Policy-makers and planners must work with the knowledge that tourism can have negative impacts on personal security, transportation, urbanisation and cultural integrity. Good tourism management means assessing the physical and social carrying costs of tourism development (Tourism Policy Forum, 1991).

#### **Ecotourism Strategies**

A policy that promotes sustainable tourism development will be created when the efforts and active participation of three groups are coordinated in one joint enterprise. A new political paradigm of developing countries requires that each sector play a well-defined role in the planning and policy development process and that the combined efforts of all sectors be integrated into policy. If tourism leaders from all sectors work together they will eventually mobilise the human resources necessary to design and implement a series of tourism development policies and plans which truly address the enormous tourism potential of developing countries.

A four-strategy approach has been proposed by Williams and Shaw (1997, 267), these include;

#### **Consumer awareness and education**

Although the average consumer has been sensitised to environmental issues, such as global warming, depletion of ozone layer, more needs to be done to develop an awareness of tourists' responsibility to preserve and enhance environmental quality of the destination. It is essential to promote ethical standards concerning the use of natural and cultural resources and to assist consumers in choosing tour operators who follow conservation guidelines.

#### **Tourism Industry Action**

The private sector is responsible for delivering the products and services to tourists and therefore, they should take the responsibility for the protection of biosphere by minimising pollution, which causes environmental damage. The industry should also work together to develop guidelines for resort developments and concession operations, which utilise low-impact design criteria and the latest technologies for recycling and conserving resources.

## **Destination Planning and Development**

Government and non-government organisations need to share responsibilities for Ecotourism development. Listed below are some of the responsibilities that should be assigned to the government and non-government organisations;

- Governments: Undertake research into the environmental, economic and cultural areas of tourism.
- Support the development of tourism economic models to help define appropriate levels of economic activities.
- Assist and support lower levels of government to develop their own tourism development strategies.
- Apply a Sectoral and / or regional environmental accounting system for the tourism industry.
- Educate the public on issues of sustainable tourism development.
- Regulate and control tourism in environmentally and culturally sensitive areas.
- Non-government:
  - Be part of sustainable tourism advisory boards at all levels.
  - Seek local support for appropriate sustainable development.

Promote education of the public on the economic importance of sustainable tourism development and environment protection.

Be encouraged to identify and communicate to the appropriate agencies those issues related to sustainable development as well as solutions to those problems.

An extended concept of marketing Ecotourism

Traditional marketing has been described as the four Ps

- Price: assigned to the product or service offered to tourists.
- Promotion: a range of communication and sales activities are needed to stimulate actual potential customers to become aware of Ecotourism products and buy it.
- Place: the distribution system in which the customers buy Ecotourism products. This includes for-profit and non-profit organisations.
- Product: is a mixture of benefits, products and services (Williams and Shaw, 1997: 162-270)

### **Sustainable Tourism and Environmental Management**

The World Tourism Organisation defines sustainable tourism as “tourism which leads to management of all resources in such a way that economic, social and aesthetic needs can be filled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems. (WTO Report 2002:7)

During the 1980s, it became apparent that major global environmental changes were occurring suddenly and silently and those scientists had not predicted these changes. The world also became more aware that there was an element of uncertainty and risk in relation to the effect of a range of human activities on global environments. To rectify these problems, fundamental changes were required in our style of living.

Tourism is most ideally suited to adopt sustainability as a guiding philosophy. There are many reasons for that;

- Apart from transport, tourism does not consume additional non-renewal resources.
- A community’s resources, its culture, traditions, shops, leisure facilities, etc, represent the core resources base for tourism.
- Tourism use of resources, both natural and cultural, should be non-consumptive, making them renewable.
- Tourism represents one of the few economic opportunities available to remote communities.
- Tourism provides real opportunities to reduce poverty, create employment for disadvantaged people and stimulate regional development.
- Tourism has proven to revitalise cultures and traditions.
- Tourism can provide an economic incentive to conserve natural and cultural assets.
- Tourism has been shown to foster greater understanding between people and a greater global consciousness.

And so, sustainable tourism is really an issue of how best to encourage tourism growth while minimising costs (McKrecher, 2003:4). Sustainable tourism entails adequate utilisation and management of resources to achieve economic, social and cultural needs while maintaining social, cultural integrity, ecological processes as well as biological diversity for the present as well as for the future generations. Therefore, modern tourism with its trends and characteristics cannot be promoted without considering the environmental management as a main component of the economic aspects of tourism.

The principles of sustainable tourism are various one of which is the ecological sustainability, which entails the implementation of development that is compatible with the maintenance of essential ecological processes, biological diversity and resources.

As a result of the significant dependence of tourism on environment, maintaining the attractions of the tourism destination and its natural assets contributes to tourism growth and increase the popularity of the destination. Tourism through its ability to generate income is able to enhance environment, provide fund and preserve the cultural heritage of the destination.

On the other hand poor tourism planning can destroy vegetation, create overcrowding, pollute beaches, eliminate open space, and ignore locals’ interest. Various approaches have been introduced to maximise the

tourism's consideration to nature to retain popularity as an attractive tourism destination, these approaches include; Ecotourism, nature tourism, sustainable development and carrying capacity.

Ecotourism as one of South Africa's main tourist attractions, therefore, the ecotourism market can not be sustained with adequately protected environment, which requires not only from the government but also from the tourism industry to implement appropriate environmental management programmes.

Tourism as the world's largest industry is able to provide healthy and safe environment for the tourist market as well as for other industries. The co-operation between environmental and tourism issues was highlighted by the Manila Declaration (Edgell, 1990) as well as by the study by the Organisation for Economic Co-operation and Development.

In examining the possible implication for tourism, the WTTC expresses particular concern with respect to the depletion and pollution of land resources. It states that the long-term implications of resource depletion are obviously extremely serious. Even over the next few decades the travel and tourism industry could find that; Political instability or increased competition for land could lead to loss of potential new tourism destinations and degradation of existing destinations.

Loss of landscape and wildlife could cause a decrease in customer satisfaction with tourism products and hence lower propensity to travel to some areas. WTTC also presents a positive vision of tourism and the environment, stating that;

- Tourism is an integral aspect of modern societies.
- Global awareness of environmental damage is developing rapidly.
- The resources of the world's largest industry can and must be harnessed to achieve environmental goals.
- The industry has the potential to influence customer to achieve beneficial environmental effects.
- Environmental lobbies will add pressure to develop good environmental practice. (Goeldner, 2003:464)

## **Environmental Impacts of Tourism and its Sustainability**

As tourism moved into the 21<sup>st</sup> century, the enterprises have to make the environment a priority. Because tourism now is the world's largest industry, the environment is taking centre stage in tourism development. Tourism is not only a powerful economic force but also a factor in the physical environment as well.

Any form of industrial development brings impacts upon the physical environment in which it takes place. In view of the fact that tourists have to visit the place of production in order to consume the output, it is inevitable that tourism activity is associated with environmental impacts (Cooper et al. 1998:149). For that reason, traditionally some authors have pointed out that tourism can lead to environmental negative consequences.

The highly polarised nature of development also generates intense environmental problems. This reduces the quality of life for locals as well as for tourists and, ultimately, may threaten the viability of the tourist industry itself (Williams & Shaw, 1991). Depletion of natural resources can result in water shortages; create great pressure on other local resources like energy, food, etc., that already might be in short supply or destroy beautiful scenic landscapes. Pollution from tourists has impacts on the global level that disturbs the local population of the caused community.

Solid waste and littering in the nature despoils the natural environment. The more physical impacts are degradation and loss of wildlife habitats and of scenery, and disturbance and erosion of the local ecosystem caused by clearing forested land and construction of tourism facilities and infrastructure (UNEP, 2001). However tourism could be positive for the preservation of natural areas.

In many tourism projects the conservation of the natural, cultural and built environment is an important motivation for the initiation of the project. Moreover, some of the projects tend to deter local communities from illegal use and overuse of natural resources as well as they try to integrate the protected natural areas in regional and local development plans and programs. Therefore, tourism could and should contribute positively to environmental preservation. This sentence has more sense when we think about tourist motivation in visiting one specific place. The benefits and costs on environmental impacts are highlighted below;

TABLE 3: ENVIRONMENTAL IMPACTS: A COMPARISON

<b>Benefits</b>	<b>Costs</b>
-Conservation of natural areas and wildlife. -Re-evaluation of ecological values by the local population and authorities as a result of tourism interest. -Increasing awareness of the environment and nature in general among tourists. -Rehabilitation and often also transformation of old buildings and sites into new facilities. -Introduction of planning and management. -Tourism may be less damaging to nature compared to alternative economic sectors such as agriculture and forestry.	-Loss of aesthetic value. -Noise. -Generation of waste. -Deforestation for building accommodation or to obtain firewood, pollution of water and air -Disturbance of ecosystems, disruption of animal breeding patterns and habitats. -Destruction of beaches, dunes, coral reefs and many National Parks and Wilderness Areas through trampling and/or use the use vehicles. -Change of landscape –permanent environmental restructuring. -Seasonal effects on population densities and structures. -Conflicts over use of resources.

(Source: adapted from France, 1997: 83 and Cottrell, 2001: 2)

According to Cooper et al (1998: 164) there are no generally accepted models for environmental impacts. Basically, we need a wide overview in order to be able to develop tourism as carefully as possible, taking into consideration the wide range of possible impacts. In doing so, we will be able to achieve a satisfactory tourism development management. Environmental impacts are not unique to tourism and tourism receives a disproportional share of criticism for its negative environmental impacts.

The criticisms directed at tourism from an impact of development view have tended to focus on the deterioration of natural and cultural environments that tourism can cause. The development of tourism is frequently justified on the basis of its potential contribution to the broader socio-economic development of destination areas. Indeed, tourism is generally considered an effective vehicle of development, yet the meanings and objectives of “development” and the extent to which it can be achieved through tourism, is rarely questioned. Moreover, the relationship between tourism and development remains to be an under-represented area of study and research (Sharpley & Telfer, 2002).

WTTC subsequently proceeds to examine the key environmental issues under five headings, namely; Global warming, Depletion of ozone layer, Acid rain, Depletion and pollution of water resources, Depletion and pollution of land resources.

According to Goeldner (2003: 464) in examining the possible implication for tourism, the WTTC expresses particular concern with respect to the depletion and pollution of land resources. It states that the long-term implications of resource depletion are obviously extremely serious. Even over the next few decades the travel and tourism industry could find that;

- Political instability or increased competition for land could lead to loss of potential new tourism destinations and degradation of existing destinations.
- Loss of landscape and wildlife could cause a decrease in customer satisfaction with tourism products and hence lower propensity to travel to some areas.
- Higher fuel prices could lead to operational price increases and corresponding decreases in the number of travellers in the price-sensitive markets.
- WTTC (2003) also presents a positive vision of tourism and the environment, stating that;

Tourism is an integral aspect of modern societies.

- Global awareness of environmental damage is developing rapidly.
- The resources of the world’s largest industry can and must be harnessed to achieve environmental goals.
- The industry has the potential to influence customer to achieve beneficial environmental effects.
- Environmental lobbies will add pressure to develop good environmental practice. (Goeldner, 2003:464)

### **Carrying Capacity and Multiple-use**

Carrying capacity and multiple-use are two important concepts that enable societies to make more efficient use of tourist facilities and land resources. Carrying capacity is a notion which recognises that both natural and man-made attractions have upper limits in their capacity to absorb visitors.

Multiple-use is a strategy, which recognises that a limited supply of recreational land often needs to be used for several purposes. It is possible, for example for some forest recreation areas in Southern Africa to be used for logging as well as tourism.

### **Conservation/Preservation**

Conservation refers to planned management of sites and places. Plenty of positive evidence about tourism's part in conserving Europe's building treasures and historic sites, much less written about the sort of impact in the third world. Four main conservation influences are noted by Mathieson and Wall (1995) in their review of the worldwide literature, namely;

- There is the rehabilitation of existing buildings and historic sites.
- There is the transformation of old buildings to new uses
- There is the conservation of natural resources
- There is the introduction of planning procedures and control to ensure good management of the environment. (Adopted from John Lee, 1998:54-55)

## **Responsible Tourism and Environmental Impact on South Africa**

Tourism still plays a relatively small role in the South African economy and it has a long way to go if it is to fulfil its potential to significantly contribute to national income. Traditionally the main focus of governments has been on the growth in international arrivals and total foreign exchange earnings, and is now than on fostering entrepreneurial opportunities for the historically disadvantaged, poverty relief, employment and local economic development. Both domestic and international tourism can create employment; it is a relatively labour intensive industry and it employs a multiplicity of skills from accountants and hairdressers to tour guides and trackers. Tourism can provide very good skills development opportunities for local communities.

The White Paper concluded in 1996 that tourism development in South Africa had largely been a missed opportunity; and that the focus on a narrow market has reduced the potential of the industry to spawn entrepreneurship and to create new services, like local entertainment and handicrafts, and to drive local economic development. In fact formal tourism sector provides major opportunities for the informal sector. Tourists travel to the 'factory' to consume the product; they travel to the destination to enjoy their holiday. Tourism is a "final good", all the final touches have to be provided in South Africa and so the value is captured here.

The value of a taxi ride from the airport, wildlife viewing and restaurant meals all accrue to the local economy – the challenge is to maximise it by reducing leakages and developing the multiplier effect. Tourist enterprises attract domestic and international tourists and create opportunities for small entrepreneurs and economic linkages, for example agriculture, hunting, handicraft production, and a wide range of service industries which tourists are likely to consume in the destination.

South Africa is now beginning to work on maximising the local economic benefits which tourism can bring to an area; there is much to be gained from creating a more diversified tourism product and marketing a wider range of experiences, activities and services to tourists. Established enterprises can gain by encouraging and assisting the development of complementary product – the larger and more diversified the local tourism base, the more successful enterprises in the area will be.

The White Paper identified a wide range of opportunities for historically disadvantaged groups ranging from small guesthouses, shebeens and restaurants with local cuisine, through community tour guiding, music, dance and story-telling, arts and crafts, traditional hunting and medicine to laundry, gardening and speciality agriculture. Tourism provides particular opportunities for local economic development in rural areas where it can provide people with an alternative to moving to urban areas.

Tourism must be market related. If community-based and other tourism development processes are not planned, implemented and managed according to market demands then far too many South Africans, especially the poor, are facing not merely “missed” opportunities, but the hard realities of failed or under-performing products to which tourists simply do not come. The African cultural tourism experience needs to be woven into the fabric of the mainstream South African tourism product.

Responsible tourism implies a proactive approach by the tourism sector to the environment through the promotion of balanced and sustainable tourism. This is particularly important where the focus of the tourism sector and of the activities of tourists is the natural environment, as is the case with wildlife viewing, hunting and marine tourism. There are particular challenges in making nature-based tourism sustainable.

Furthermore, responsible tourism development has to be underpinned by sustainable environmental practices. In the environmental sphere only conservative decisions based on the precautionary principle can be considered responsible. Cultural heritage is also part of the environment, and the responsibility of the tourism sector towards the cultural environment was considered in the social responsibility guidelines.

Central to environmental responsibility is thinking about the life cycle impact of an enterprise or product, and so these guidelines apply to the stages of design, planning, construction, operation and decommissioning. The process of managing the business should be fully integrated with environmental management, throughout the project lifecycle (from conceptualisation to decommissioning). In constructing concessions and leasehold developments it is particularly important to ensure that during decommissioning it will be possible to remove all structures and restore the area. Larger businesses should be using Environmental Management Systems to exercise environmental responsibility; for businesses above a defined size in each sector it would be irresponsible to operate without one.

All tourism enterprises can make a contribution to environmental sustainability by exercising care in purchasing decisions – by seeking out and supporting responsible producers of the products that are required to run the enterprise, and by making clients aware of the responsible purchasing policy.

The practical guidelines and indicators that follow are organised around the key environmental elements of responsible tourism identified in the 1996 White Paper.

## **Environmental problems in South Africa**

The environmental problems in South Africa are many, most of which are a result of people and business organisations including those operating in the tourism industry. Early tourism development has given little consideration to natural resource limitations, impacts on wildlife and indigenous cultures. The human environment and development has been largely ignored. Within the process of globalisation local communities' participation and nature conservation are threatened and often overlooked.

If tourism is to be sustainable, it must improve the lives of local people, protect their environment and health and offer a better future. In many instances tourism can be seen as a vehicle to empower local communities and protect the environment through the development of new employment opportunities, the enhancement of local economies, preservation of indigenous knowledge and practices, public awareness and education.

Sustainable tourism can create positive opportunities for community development in remote areas. The business sector can choose sustainable tourism over other more polluting ventures. Long and short term development plans should be developed so that tourism and its benefits are spread within the area. To develop tourism in a sustainable manner it is necessary to define optimal tourism destinations in local areas and regions, ensuring enjoyment for the tourist and minimum impact or disruption for the environment and local communities.

Complex and broad based local communities' involvement in tourism development requires targeted investment strategies implemented by local decision-makers. Those strategies do not exist in many areas and the development of tourism is not planned. Tourism investments are too often imposed from the outside, and the potential for sustainable forms of tourism is weakened. Alternatives to mass tourism, e.g. cultural and ecotourism can be influential in changing the nature of tourism. Tourism can benefit both tourists and local communities and allow for two-way interaction and education.

Access to natural resources and environmental degradation:

Tourism is not, as many people assert, a clean and non-polluting industry. A major problem is the lack of a common understanding of what sustainable tourism or ecotourism mean. This ambiguity leads to violations of environmental regulations and standards. Hence, the environmental problems evolving from tourism are manifold. First of all the tourism industry is very resource - and land intensive. Consequently, the interest of the tourism sector will often be in conflict with local resource - and land use practices.

The introduction of tourism will imply an increased stress on resources available. An influx of tourists into the area leads to a competition for resources. Employees working at the tourist sites compound this competition. Almost as a rule tourists are supplied at the expense of the local population.

Tourist activities imply an intensified utilisation of vulnerable habitats. Investors and tourists do not necessarily possess awareness on how to use natural resources sustainably, and subsequently this utilisation often leads to a degradation of resources. Tourism is also a major generator of wastes. In most tourist regions, sewage, wastewater and solid waste disposal are not properly managed or planned. Lastly, tourism is also responsible for a considerable proportion of increased volumes and mileage in global transport and hence the associated environmentally damaging pollutant emissions. The tourism industry has not shown sufficient willingness to (internalise or) compensate the cost of conservation of biodiversity by for instance protected areas, even though they profit from it.

## **Ecotourism: Opportunities and Challenges**

There are various challenges and opportunities for Ecotourism in terms of sustainability and involvement of local communities. Ecotourism provides clearly a major opportunity for the South African communities as an emerging market, which holds a great promise for Ecotourism development. The relatively undeveloped and/or unexploited areas of the country possess a rich natural diversity and a unique cultural and historical heritage, which can provide a solid base for the nationally and internationally growing Ecotourism activity.

South Africa hosts a great variety of climate zones and eco-systems, for example Impressive nature and wildlife are potential tourism resources and many historic sites. Such historic sites and monuments together with the living cultures preserving traditions like the Zulu heritage provide today outstanding tourist attractions.

When exploiting this great potential, it is fundamental that Ecotourism development takes place in a sound planning framework that ensures the conservation of the resources that Ecotourism relies on and the meaningful participation of the host communities.

The challenge faced in South Africa is obvious: there is a need to preserve and protect the fragile natural sites, wildlife and ecosystems, and at the same time there is a need to educate people and to create employment in order to fight poverty and misery. If properly managed, sustainable Ecotourism can provide for both these objectives, as it depends on intact nature, rich local culture and many services carried out by local people. If natural resources are used wisely, for example, by providing sensitively designed tourist facilities in game parks and nature reserves and using the resulting income to manage those protected areas, conservation and development would become complementary forces. Ecotourism offers a win-win-situation for the benefit of the environment and the local economy.

## **Local Communities and Natural Resources**

In general, the tourism industry should engage in promoting sustainability as a hole-mark for investors. More specifically, the investors in tourism should strive to adopt environmentally sound technologies or other measures to minimise the consumption of the local ground water. Using various types of resources in a sustainable manner is of course also crucial.

There is a need to use ecological materials and installation of renewable sources of energy systems (solar energy) in all new buildings and new construction. Furthermore there should be an acceleration of installation or solar/wind power in all public work projects of communities where tourism will be introduced.

Pollution of ground and coastal waters must be prevented, and recommendations made (perhaps even legislation) for tourism investors to invest in proper sewage treatment facilities. Appropriate waste disposal systems and ways to separate garbage into organic and non-organic waste should be developed. Organic waste can be composted and possibly reused on hotel gardens or even for local farming. This could be done through collaboration with local residents. Residents could organise themselves, manage the allocated dumping sites, and hence benefit from the system in receiving payment from the hotel for services rendered. A system to separate the different materials, and recycle some should be in place at the landfill site thus reducing the waste even further.

To avoid degradation of the natural environment, tourism projects can help finance protected areas and safeguard ecologically sensitive regions against further environmental deterioration. By empowering local populations and have them participating in the entire process, sustainability will be ensured as it becomes accepted by and adjusted to the local communities. A protected area might certainly also be a suitable tourist-attraction, where tourists can experience amazing nature and learn about conservation and traditional uses of natural resources in the area.

Investors in tourism should always respect the traditional land tenure system in the area and the traditional user-right systems of resources. In regard to this the communication and consultation with the local communities about resource-use is important. Tourism investors should not exclude local people from using local resources, and thus take away what they depend on for maintaining their well being.

The tourism industry can and must take initiatives to implement the polluter-pays principle for pollution related to tourism operations. This may be organised and carried out through local tax systems or through funds established by the tourism industry for local community development. The polluter-pays principle should be applied for minor pollution only and should not be developed into a possibility for investors to pay a symbolic fine for imposed irreversible negative impacts on the local environment.

Inaccurate and/or mild environmental legislation may possibly attract more foreign investors contributing to fast economic growth and development but without environmental damage as a consequence. To avoid the dilemma, South Africa will have to face in choosing between economic development or environmental protection international and multinational companies enterprises must be committed to follow the environmental standards of the country.

## **Coastal Protection**

Tourism is one of many South African economic activities with a special focus on coastal areas. The two most popular locations for holidaymakers are the mountains and the coast. New concepts including the whole watershed area seem to be the best approach, especially when aquatic pollution problems are considered. Most problems are related to conflicts between different uses and access restrictions. Tourism leads to increased traffic flow and overcrowding in already densely populated areas. Therefore tourism adds substantially to the following pressures:

- Pollution by wastewater, garbage, heating, noise and traffic emissions.
- Encroachment of buildings, facilities and roads close to the coastline.
- Beach erosion due to building, dune removal and dredging.
- Excessive use of natural areas.
- Destruction of natural areas to accommodate tourism or other needs.
- Inter-Sectoral competition and conflict over (marine and terrestrial) space.
- Exclusion of local communities from any role of significance in decision-making.
- The loss of natural and architectural heritage in the face of rapid expansion.
- Strain on public utilities and facilities.
- Displacement of local population.
- Creation of restricted exclusive zones that are off-limits to the local people.
- Loss of business to the local enterprises as all-inclusive resorts supplies all the needs of their guests.

Additional typical tourism impacts are socio-economic conflicts as property and general costs of living are increasing and summer guests, changing the social structure significantly, can overrun small communities. Foreign customs and expectations can create conflicts and a deterioration of cultural and regional values.

## **Proposed Action Plan for Sustainable Tourism Development**

A proposed action plan includes;

- Promoting the development of tourism in harmony with the natural and cultural environment, through development, education, and training programmes, at the national, regional, and community levels
- Developing tourism strategic development plans that promote environmentally sound and economically, culturally, and socially sustainable development.
- Drawing up strategic plans to protect the health and safety of tourists, in close collaboration with health authorities, tourism operators and security service providers and the police in all areas, as an essential component of good service offered at different sites, as well as designing promotional activities that take into account the social-cultural and economic conditions of the country.
- Developing, adopting, and implementing legislation to promote responsible practices in tourism development.
- Collaborating with the private sector and local communities in formulating criteria for the sustainable use of natural resources.
- Involving local communities to design programmes aimed at raising awareness for the development of sustainable tourism at all levels of society, promoting and facilitating their full participation.
- Elaborating environmental impact studies for the design of tourism projects, in order to ensure sustainable development.
- Working with national authorities to use tourism earnings as one of the means to alleviate poverty and generate employment in the country.

### **Promoting Tourism towards Sustainable Development**

Tourism is considered a mean for income generating for the local communities. Actually the government has been considering helping the local government to develop income generating at the conservation area as an Eco-tourism base on the local community participation with exploring the potential ecosystem. Hopefully through these Eco-tourism activities the income generating for local communities will be increased and the ecosystem will be more protected with sustainable resources.

The government should manage the activities of local communities to achieve Eco-tourism by introduce recycling of domestic waste to a consumption product. Developing tourism for poor community's growth in the country has great advantages such as:

- It will increase the participation of local communities of the informal sector, which provides opportunities for producing handicraft of recycling products.
- Tourism areas that have an asset from cultural, wildlife, scenery, etc., will increase access of the poor to achieve additional income generating if they explore these potentials in a sustainable manner, such as developing the city which implement a cleaner production as a green city.
- Tourism can be more labour intensive if they could diversify the activities around the areas such as building and running hotels or cottages, improving management of domestic waste, involvement in minimising the use of non-renewable energy and materials, extensive use of recycled materials and Eco-farm implementation.
- Maximize the potential of tourism for eradicating poverty by developing appropriate strategies in cooperation with all major groups, local communities and indigenous.
- Increase of local community's capacity and capability on managing of their environment.

Such initiatives can achieve the following benefits;

- Increase the benefit (income generating, knowledge, etc.) from sustainable tourism resources for the population in the local communities.

- Maintaining the cultural and environmental integrity of the local communities.
- Enhancing the protection of conservation area.
- Develop technology of cleaner production for supporting tourism activities.
- Managing of local conservation resources.

**Proposed Scope of Work for such initiatives, include:**

- Technical assistance to local communities to develop sustainable tourism in tourism area.
- Training on sustainable tourism for local government, supporting system of tourism such as hotel, tourist guide and other relevant stakeholders.
- Inventories of endangered species and culture as an interesting object of sustainable tourism.
- Conducting research of current situations in the tourism areas determined as a pilot project.
- Promotion of public awareness to implementation cleaner production in the tourist and developing new tourism product with recycling program.
- Collaboration with other countries, which have similar object as a sustainable tourism.
- Creating an information system base and provide website for information and guidelines.
- Exchange experts between South Africa and donor organisations.
- Provide tourism infrastructure that promotes utilisation of environmental friendly technology.

**Proposed Activities**

- Encourage public awareness of local communities and private tourist agencies.
- Organise local communities in order to engage effectively in tourism and encourage them, such as utilise their house as a cottage for tourist.
- Cooperation with partner and donor countries to develop the sustainable tourism.
- Identification of interesting objective of sustainable tourism.
- Provide information of sustainable tourism with producing leaflet, advertisement, etc., and present of web-site.
- Build the infrastructure to conduct sustainable tourism in the tourist areas including health sanitation, emphasis on renewable resources and other facilities to support the areas.
- Launching Eco-tourism as a national program.
- Training, workshops and comparative study of Eco-tourism.
- Engage in exhibitions, competitions in the tourist areas without deteriorate of ecosystem.

**Expected Results**

- Increase income generating of host community by use of environmental or local products.
- Emphasis on renewable resources, comprehensive recycling and environmental friendly waste disposal.
- Increase capacity building in order to contribute to the strengthening of rural and local communities.
- Implementing cleaner production for supporting system of tourism in rural and urban.

**Coordination and Implementation Mechanism**

- Cooperation with partner and donor organisations at national level DEAT as coordinator will cooperation with appropriate with other departments, local governments and major groups. At international cooperation with other developing countries whose have similar object of tourism and with donor organisations for technical assistance and financial assistance.
- Identification of tourist location in each area for a pilot project with different criteria such as natural heritage, cultural, conservation areas and existing condition of local communities.
- Research of current situation in the area of sustainable tourism pilot project.
- Develop program including education and training through technical assistance of experts and engaging comparative study for training. Targets of training are local government and supporting system for sustainable tourism such as hotel, tourist guide and other stakeholders (informal private sector and the host communities).
- Provide plan of action for improving tourism as sustainable development.

- Assist of host communities in managing visits to their tourism areas for their maximum benefit (e.g. mechanism for improving income generating of host communities, tax for tourism activities, major authority for host communities and land tenure, preference for using local products and suppliers).
- Promote diversification of economic activities, through the facilities of access to markets and commercial information between partners.
- Infrastructure construction implementation by environmental friendly technology utilisation.

Many of the South African regions are homelands of indigenous peoples. At the same time, these regions are increasingly becoming tourist destinations; being economically and politically marginalized, indigenous peoples often bear a disproportionately large share of the costs of tourism development. The demarcation of protected areas, which are often being made available for Ecotourism use, often deprives indigenous communities of their hereditary land and their resources.

The traditional forms of economy of the indigenous cultures visited are very diverse. The diversity of the anthropogenic landscape is irretrievably linked to these. More than one eleven different indigenous languages nation-wide is still in use today. Most of the tourists come from the about six worldwide dominating consumer cultures with their respective behaviour patterns and languages. This contributes to the disappearance of the indigenous economic systems, local knowledge and the languages directly tied to this context. If all this knowledge, the economic systems and languages of these cultures fall into oblivion, this will have negative impacts on biological diversity. Therefore, the protection and sustainable use of biological diversity in South Africa cannot be achieved in a fair way without taking into account the cultural and social concerns of the local population. Various human activities, especially in traditional societies, have had a decisive influence on agro-biological diversity. The direct connection between the high diversity of species and cultural diversity has to be adequately taken into account.

Instead of prohibiting traditional forms of land use in protected areas and subsequently developing more or less successful forms of income (like tourism), traditional sustainable forms of land use should remain untouched. They might - in the framework of sustainable tourism development - be made usable in addition.

In this sense, the acknowledgement of the property rights of indigenous communities to their hereditary territories and of the use and administration of the natural resources has to be guaranteed in the framework of the community-based sustainable tourism (CBST).

In-depth, consultations with the communities concerned are the first step towards a full participation of the local population/indigenous peoples in the planning and implementation of tourism projects. In this context, it has to be considered that the local population is often not a homogeneous group and that there may be divergent interests. The communities concerned have to be put into a position of being able to decide if and in what form tourism projects are being realised in their catchments area.

If the indigenous communities want tourism development or the opening up to tourism, tourism concepts have to be developed which at the same time contribute to the conservation of biodiversity by the indigenous population and to the preservation of their languages. Therefore, Sustainable tourism projects should be based on the decisions made by the community, increase the value of traditional knowledge and reinforce cultural values.

Indigenous people have to be actively involved in the development of National Guidelines on Biological Diversity and Sustainable Tourism. If an ad-hoc Working Group is set up to develop National Guidelines on Biodiversity and Tourism, it is indispensable that it also includes representatives of indigenous groups.

## **Incentives and Regulation and the Impact on Tourism Development**

There were widely differing views expressed on what role regulation should have in the tourism industry but it is thought that it might be a mix of regulation and voluntary codes by the industry.

### **Incentives**

The ability of big and small operators to utilise their supply chain to support sustainable tourism could be an important driver for change. This might require financial support for SMME's to enable them to both change their own operational practices and also to understand the opportunities that they have in influencing the supply chain. The involvement of the community could also be an important marketing point.

The impact of media focussing on the health and safety programme of tourism is already having an impact. A similar approach for environment might also result in a positive incentive for the industry to take action.

### **Regulation**

There was disagreement about the need for new regulation at any level. On the one hand it was seen as necessary due to the differences in power of the relevant stakeholders. On the other hand it was seen as an obstacle, which might deter investment. Finally it was pointed out that the development of voluntary codes often leads to regulation further down the road.

## **Possible Tourism Industry Actions**

Promote sustainable tourism products, using market related instruments and incentives, such as contests, awards, certification, model projects, culturally sensitive quality labels covering both environmental and social sustainability;

- Reduce inappropriate consumption, use local resources in preference to imports in a sustainable manner; reduce and recycle waste, ensure safe waste disposal, develop and implement sustainable transport policies and systems, e.g. efficient public transport, walking, cycling in destinations.
- Provide tourists with authentic information, enabling them to understand all environmental and related aspects (e.g. human rights situation) of tourism when selecting any destination or holiday package; educate visitors in advance of arrival and give guidance on 'dos' and 'don'ts'; make tourists aware of their potential impact on and their responsibilities towards host societies.
- Provide information on respecting the cultural and natural heritage of destination areas; employ tour guides who portray societies honestly and dispel stereotypes.
- Ensure that the marketing of 'green' tourism reflects sound environmental policy and practice; use non-exploitative marketing strategies that respect people, communities and environments of destinations, dismantle stereotyping, integrate sustainable tourism principles when creating new marketing strategies.
- Train staff to foster tourist responsibility towards the destinations, encourage multi-cultural education and exchange.
- Actively discourage exploitative sex tourism, particularly sexual exploitation of children and tourism, which causes or contributes to social problems.
- Adopt, observe, implement and promote codes of conduct.
- Reduce financial leakage and support local economies by buying food and resources locally, develop long-term partnerships with local operators, businesses and suppliers; train and hire local staff and contract with local businesses, promote management opportunities for women; prefer accommodations owned, built and staffed by local people, promote locally made handicrafts and traditional products.
- Encourage clients to study and understand their destinations, respect local cultures and co-ordinate visits with local communities, authorities and women's organisations, being aware of and sensitive to local customary laws, regulations and traditions, respect historical heritage and scientific sites.
- Educate staff to avoid negative environmental and cultural impacts and create incentive schemes to promote sustainable behaviour.

## **Conclusion**

The concept of community-based tourism provides substantial benefits of resources utilisation at community level as well as encourages a more sustainable use of these resources. However, the management of resources and the community that utilises these resources becomes a crucial issue, and the research proposes that through building up a representative and transparent community based organisation can assist the national government in adequate management of resources and facilities, dealing with conflicts of interests as well as enforcing the government regulations in terms of environment protection, human resources development and sustainability of the area.

Community based tourism management creates suitable environment for tourism development to take place in the spirit of volunteerism and to strengthen the Non-government organisations to take part in the development process. Furthermore, community based tourism can;

Makes use of the traditional knowledge systems, and activities can be arrived at in line with the ability of the target group to deliver.

Be an effective and sustainable mean for making use of the available natural resources.  
Result in clear and substantial economic benefits with well-established and implemented strategies.  
Encourages community to claim access to land and natural resources.  
Encourage partnerships among all stakeholders.

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# Reframing HIV/AIDS and sustainable development in Africa and Asia: A Reflexive Modernization Perspective

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## Abstract

Despite global acknowledgement of the Human Immunodeficiency Virus (HIV)/Acquired Deficiency Syndrome (AIDS) reaching pandemic proportions with 37.8 million people (WHO/UNAIDS, 2004) living with the infection, progress towards developing effective international responses to curb the spread of the disease has been slow. The focus of current debate tends to focus on the medical treatment and prevention of HIV/AIDS, leading to emphasis being placed on the rapid increase in HIV infection as well as opportunistic diseases such as tuberculosis and malaria. The traditional view of responding to these challenges has been probing the high cost factors associated with antiretroviral treatment and burgeoning medical care needs. This paper argues that these responses are limited in their effect as they have a narrow, medical focus of the HIV/AIDS epidemic. This paper presents a broader perspective. It investigates the implications of HIV/AIDS to the goals of national sustainable development using theoretical standpoints provided by reflexive modernization, namely the concepts of 'risk' (Beck, 1992; 2002), 'reflexivity' (Beck, Giddens and Lash, 1994) and 'individualization' (Beck and Beck-Gernsheim, 2002). Attention is given to those regions of the world Africa and Asia – where both sustainability and HIV/AIDS are becoming acute policy issues.

## Introduction

In discussing the theory of reflexive modernization, Beck argues that industrial society is being dissolved and replaced by a new modernity. This transformation is 'changing the foundations of living together in all spheres of social action' (Beck, 1998: 17). Moreover, it has generated major ideas informing policy development around the world (Dannreuther and Lekhi, 2000). Whilst reflexive modernization has been subject to wide ranging discussion and debate, it puts forward key concepts that may help generate greater understanding of the multi-dimensional issue of HIV/AIDS and its deleterious effects on sustainable development.

The responses to the challenges which HIV/AIDS presents tend to focus on high cost medical care such as antiretroviral treatment and medical care needs in the acute stages of the disease. Although access to antiretroviral therapy is increasing globally (Ruxrungtham, Brown & Phanupak, 2004) making it work effectively while simultaneously expanding treatment to stem the flow of new infections, the spread of HIV/AIDS remains a real challenge in both Asia and Africa. At the 48<sup>th</sup> Commonwealth Parliamentary Conference (CPC), (2003), it was recognised that the HIV/AIDS problem has advanced so far that it cannot be looked on simply as a health care issue. It has social, economic, political, cultural, technological and environmental dimensions as well as medical proportions. The spread of HIV/AIDS also cuts across national boundaries. The disease is multi-faceted and poses significant policy issues in many spheres but it is ultimately a controllable phenomenon.

The connection between health and sustainable development is clearly set out by the United Nations Department of Economic and Social Affairs (DESA) in the Declaration and Plan of Implementation arising from The World Summit on Sustainable Development held in Johannesburg in 2002. The Declaration states that nations must 'place particular focus on, and give priority attention to, the fight against the worldwide conditions that pose severe threats to ... sustainable development'. These threats include, 'endemic, communicable and chronic diseases, in particular HIV/AIDS, malaria and tuberculosis" (UNDESA, 2002a, Paragraph 19). The Plan of Implementation also argues that 'the goals of sustainable development can only be achieved in the absence of a high prevalence of debilitating diseases, while obtaining health gains for the whole population requires poverty eradication. There is an urgent need to address the causes of ill health ... and their impact on development' (UNDESA, 2002b, paragraph 54).

In spite of efforts around the world to bring the spread of HIV/AIDS under control the global pandemic is escalating. There are approximately 40 million people world-wide who are HIV-infected, however, the spread is most acute in Africa and Asia where 1 in 4 of all new infections are occurring (Stephenson, 2004; UNAIDS 2004). In both of these regions, there is evidence that the HIV/AIDS epidemic is undermining sustainability.

Given the declarations arising from the Johannesburg summit and wide and rapidly developing knowledge of the magnitude of the HIV/AIDS epidemic and its likely future dynamics, it is not surprising then that HIV/AIDS has received wide attention. The seriousness of the developing epidemic in Africa and Asia lies not just in its effects on individual lives it also has the potential to compromise the sustainability of these regions. One of the more pressing consequences for many African and Asian nations is the huge and growing financial burdens on health systems, perhaps already so huge that the social and political systems of nations are now faced with urgent moral choices and questions. Many nations in Africa and Asia do not have the economic means to provide the medical facilities required to meet current demands without the added burden of wide-spread AIDS related illnesses. The question thus arises regarding prioritising the medical, political and economic choices as nations chart a course through this very difficult terrain.

The situation in southern Africa is reported-on by Greikspoor, Spiegel, Aldis and Harvey (2004, p. 396). They argue that HIV/AIDS is, 'one of the key underlying factors leading to food insecurity' through increasing levels of illness, reduced incomes and over-stretched social capital. Greikspoor et al (2004) contend that HIV/AIDS, whilst having a significant health component, its effects reach into a wide range of social, economic and cultural realms. In Asia, the picture is very similar. Sadik (1997) identifies HIV/AIDS as one of the key issues Asian nations must address to achieve sustainable development. Sadik (1997) maintains that the HIV/AIDS epidemic is a serious challenge to health and a critical human development issue with a range of interrelated socio-economic impacts and costs.

Though there are significant challenges posed by the spread of HIV/AIDS to sustainability, the area is relatively under-researched and under-theorized. The growing HIV/AIDS epidemic is one of the key threats to sustainable development in Africa and Asia. These threats and an alternative approach to the issue are conceptualised in this paper using theoretical perspectives provided by reflexive modernization.

## **Reflexive Modernization**

Reflexive modernization has the potential to significantly influence the way the social, economic and political effects of HIV/AIDS are examined and responded to. A decade ago, Beck, Giddens and Lash (1994), developed the thesis that society is going through a period of transition to a new modernity - a transition that is taking place unintentionally and unseen by the major social, economic and cultural categories and theories. In the theory of reflexive modernization, modern society dissolves as people bring into question and try to tackle its unintended side effects. This is not the catastrophic process of political crisis, economic meltdown and the collapse of global economic structures typically imagined by modern social theorists. From Beck's (1992) perspective, just as theoretical understandings of modernization conceptualises the dissolving of traditional society and the rise of modern society, the theory of reflexive modernization is conceptualising the dissolution of modern society and its gradual transformation into a new kind of modern. Reflexive modernization is a theoretical framework that includes recognition of uncertainty and fluidity in social, political and economic structures. In this respect reflexive modernization includes three useful concepts: individualization, reflexivity and risk.

### **Individualization**

Beck and Beck-Gernsheim (2002, p.22) refer to individualization as living 'a life of one's own in a runaway world'. For Beck, individualization is the 'exhaustion, dissolution and disenchantment of the collective and group specific sources of identity and meaning' (Beck, 1998, p.32). The significance of this is that it, on the one hand enables the invention of new forms of life, but on the other breaks down the traditional collective social and economic support systems (Beck, 1998). The overall implications of individualization has been discussed extensively by Beck (1994), Beck (1998), and Beck and Beck-Gernsheim (2002). From these accounts, three key aspects of individualization can be identified: differentiation, choice, and disembedding.

Differentiation – This is the breakdown or disintegration of people's lives into separate functional spheres. People are thus only partly integrated into society through its institutions as recipients of aid, voters, taxpayers, patients, etc. They are therefore dependent on those institutions that facilitate these interactions (NGO's, taxation office, government agencies, medical centres, etc.). There is a paradox here in that people's lives are differentiated and at the same time standardised by the legalities and norms set by society's institutions. So, it may be argued that differentiation actually means living non-identical lives that are mediated through institutions (Beck and Beck-Gernsheim, 2002).

The disintegration and differentiation of people's social lives means that people are only partly integrated into society through institutions. Once these institutions no longer recognise groups of people, or have difficulty in reaching them, they can be easily marginalised and forgotten. This can result in some groups being denied access to even the most basic of social support mechanisms such as family, housing and health care. Kidwai (2002) outlines an example of NGO workers in Lucknow, India being targeted by local police in a raid and charged with 'promoting homosexuality'. They were jailed for 47 days by the magistrate who labelled them 'a curse on society'. The local newspapers reported them as being part of a prostitution ring and sex club operating under the disguise of an HIV/AIDS awareness programme. This example demonstrates how major institutions in society, the police, judiciary and the media have marginalised people living with HIV/AIDS by differentiating them from the mainstream.

Choice – In this context, individualization refers to the notion that people must create their own biographies. The notion of 'choice' implies that people's life choices are no longer determined by the social class they are born into, gender roles, sexuality, race, etc. The institutions and structures of society are undermined and rendered obsolete by the structural, sociological transformation brought about by reflexive modernization. However, the idea of individual choice means that one has one's own life but this also includes one's own failures. This means the burden of risk tends to be shifted from the collective to the individual. 'Choice' means that people are being increasingly forced to take responsibility for their own health care, their own education, old age pension and unemployment.

With reference to HIV/AIDS, the idea of 'choice' can be seen as a way of considering the disease as being a result of individual behaviour. This makes it possible to transfer the blame for HIV infection to the individual. For example, the so-called 'A,B,C' approach (Abstain, Be faithful and use a Condom) focuses on individual responsibility for prevention (Ellwood, 2002) and sends a strong message that people who do not conform to this advice are 'choosing' high-risk behaviours and therefore contracting the disease is that person's fault. Governments can then marginalise people with HIV/AIDS and deny them assistance as it was their 'own fault' that they contracted the disease. Whilst widespread, this view is flawed in that it does not address the underlying social, economic and cultural conditions that encourage the spread of HIV/AIDS.

Disembedding – In living a reflexive life, people are freed from the structures of society by the process of individualization so that they become self-monitoring. They are disembedded from the taken-for-granted heteronomous social structures (family roles, class, race, gender, etc.) that formerly defined their lives as these structures are dismantled and replaced by heterodoxical contingencies (Beck, 1994). Beck (1994) argues that there follows a process of re-embedding into new forms of life as new means of integration and control are created. However, Baumann (2002) points out that there can be no re-embedding as the structures and institutions of society are in a constant state of flux, so any re-embedding that does take place will only be transient. Individualization results in people who are in a chronic state of disembeddedness.

HIV/AIDS has a disembedding effect. Contracting the disease leads to a person being disembedded from the social structures that define and shape their lives. People living with HIV/AIDS often, as these structures are dismantled and replaced by heterodoxical contingencies, have to adapt to the social and economic as well as the physiological effects of the disease. Ellwood (2002) reports that in Swaziland prominent politicians proposed that people with HIV/AIDS should be forced to wear identification badges and be segregated so that they could not contaminate 'normal people' and in Uganda compulsory testing, aimed at identifying those infected, is tending to drive sufferers underground (CPC, 2003). Reluctance to be tested is borne out of fear of censure and discrimination – of becoming disembedded. For people living with HIV/AIDS in Africa and Asia there can be no 're-embedding'

process. They are in a chronic state of disembeddedness which becomes more acute as the disease progresses from being HIV positive to developing full-blown AIDS and ultimately death.

Individualization can thus be used to give subtle insights into the effects of HIV/AIDS. The strength of this concept is that it makes HIV/AIDS not only an affliction that affects others, remote and far away. As Ellwood (2002) points out, HIV/AIDS was once a disease that affected homosexual men, and labelled the 'gay plague'. It is now a disease that affects mainly heterosexuals with 75% of worldwide HIV transmission now due to heterosexual sex. In many parts of the world HIV/AIDS is an *in here* phenomenon too, influencing intimate and personal aspects of not just the lives of people who are infected, but also their family members and wider community. In countries such as Malawi, the chronically sick adults and their children are among the most poor and least educated in society, these people are vulnerable and more often than not, infected with HIV/AIDS (Finch, 2004). Due to poverty and food insecurity, when food aid arrives the weakest receive the least food. There is a paradox for international health care responses of food aid for such communities. Whilst aid is intended to relieve malnutrition, it fails to address many of the humanitarian aspects of hunger. The main distress for such people lies not just in the direct effects of food shortages, it lies in the need for nutrition to combat the opportunistic diseases they suffer. Food donors such as the World Food Programme indicate a policy of support for people living with HIV/AIDS and their community but forget that their ability to help themselves is impaired due to under-nourishment (Finch, 2004). Repeated illnesses and nutritional deficiencies caused by the suppression of the immune system exacerbate the downward spiral of the health and well being of the individual and the community in which they live.

#### **Risk**

Risk is conceptualised in reflexive modernization theory as referring to the unintended and unforeseen side-effects of modernization, for example: nuclear accidents, global warming and ozone depletion. These risks are unprecedented in human history because they threaten irreparable global damage (Beck, 1996). Beck's conception of contemporary risks includes the idea that these begin to dominate public, political and private debates and conflicts. On the one hand, society still makes decisions and takes action according to traditional perspectives but on the other hand the interest organizations (eg NGOs), judicial systems, politics and governments are clouded over by debates and conflicts that stem from the dynamism of risk society (Beck, 1994). Beck (1992, p.21) defines risk as a 'systemic way of dealing with hazards and insecurities induced and introduced by modernization itself'. It is argued here that HIV/AIDS is one such contemporary risk. HIV/AIDS is a 'reflexive modern' disease of the late 20<sup>th</sup> and 21<sup>st</sup> Centuries.

As a 'reflexive modern' disease, its emergence and effects were unforeseen. The first case of AIDS was diagnosed in San Francisco in June 1981 (Cameron, 2001). The direct and indirect side-effects of this disease were not and could not have been forecast in the initial stages of what was to become a global phenomenon. Two decades later, the fast-mutating retrovirus has brought severe side-effects that have compounded its direct health effects. The HIV/AIDS epidemic has compromised human security, leaving behind fragmented families, orphaned children, and individuals shunned by society. What was initially thought to be a 'white homosexual person's' disease has in the last decade had severe effects on the heterosexual populations of Africa and Asia (CPC, 2003; Cameron, 2001; Ruxrungtham, et al., 2004). Within Africa, the effects of HIV/AIDS includes the growing incidents of other sexually transmitted diseases and children born with HIV/AIDS via mother-to-child transmissions (CPC, 2003; McIntyre 2003; WHO/UNAIDS, 2004).

In Africa, the hardest hit of continents, the virus is widespread in many nations. Within the region, the epidemic takes on different courses in different settings. In Botswana, 38% of adults are infected; in Zimbabwe, as many as one in four adults carry the virus, and in South Africa it is one in five (WHO/UNAIDS, 2004). Whilst the epidemic is predominantly heterosexual, most of those people live in resource constrained communities and possess little or no formal education (Cameron, 2001; McIntyre 2003). However, within Africa, the plight of children has become a familiar one where HIV/AIDS has left millions of children without parents and has afflicted thousands of others who contracted the HIV/AIDS virus through their mothers (McIntyre, 2003; Muula & Mfutso-Bengo, 2004).

In spite of the later start in Asia, the potential for widespread epidemics was not appreciated until the more extensive spread of HIV emerged in Cambodia, India, Burma and Thailand in the early 1990s (Ruxrungtham, et al., 2004). HIV epidemics in Asia show great diversity, in timing and severity. Recognising the trajectory of the HIV epidemic in Asia as being distinct from some African countries is no justification for complacency, because a 1

percent increase in the HIV prevalence in adults in countries such as India and China would result in an additional 5 million infected people (Rao, Ganguly, Mehendale & Bollinger, 2004) The epidemic is far from over and several countries including China, India, Indonesia and Vietnam have growing infection rates.

Culture, economics and politics shape the epidemic's course. Economic change in Africa and Asia has triggered huge migrations from rural villages to urban slums, leading to environmental threats, social fragmentation and high risk behaviours. Within Asia, the most prevalent factors affecting the rate and magnitude of growth of HIV/AIDS are the size of the sex worker population and the frequency with which commercial sex occurs (Ruxrungtham, et al., 2004). In some nations, men who have sex with men continue to play an important part in reported HIV infections. In the Philippines, 23 % of reported infections up to 2004 are attributed to such men (Ruxrungtham, et al., 2004).

In Asia, significant disparities of access to antiretroviral (ARV) treatment exist between the economically privileged societies and economically constrained societies. In Japan and Hong Kong broad access to ARV treatment and quality medical management is available, yet in larger countries, such as India, Indonesia and China access remains very restricted. Many Asian countries have chronically under funded healthcare systems, over population, high illiteracy rates, and weak social safety nets. This is compounded by an unwillingness of people to use condoms, governmental prohibition of harm reduction approaches to intravenous drug use prevention, and widespread discrimination against those living with and affected by HIV (Ruxrungtham, et al., 2004). Together, these make the prevention and treatment of HIV/AIDS a significant challenge.

This conceptualization of risk can be seen in terms of direct but unintended and unforeseen social, economic, political and cultural effects of HIV/AIDS. The risks associated with the spread of HIV/AIDS has forced people into situations of rule-finding, and reflexive or indeterminate judgment as they try to deal with the intractable and seemingly unlimited problems associated with the spread of the disease. Cognisance of factors such as cultural traditions and poverty in aid programs associated with HIV/AIDS are rare. Governments lack the economic resources needed to cope with the full extent of the problem (CPC, 2003) and for many people within the African and Asian regions they do not have the individual resources to develop effective life strategies to prevent or live with the disease. In spite of the more collective cultures in many Asian and African nations such as the African social norm of 'Ubuntu' (Mbigi & Maree, 1995; Cameron, 2001), people with HIV/AIDS are often stigmatised and marginalised.

The usefulness of the concept of risk, allows the HIV/AIDS epidemic in Africa and Asia, to be seen as a threat to the well-being of whole populations with serious and irreparable damage being done to the affected societies whilst also threatening environmental damage with potentially serious global implications. In short, it provides a perspective that can be used to view HIV/AIDS as a challenge to national, regional and perhaps global sustainability if it is allowed to spread unchecked. It means that it becomes possible to see the responses of national and international governmental organizations and NGO's as being critical in many ways that reach well beyond the epidemic itself.

### **Reflexivity**

There are two conceptions of reflexivity identified by Lash (1994a; 1994b) that apply to individuals and institutions: structural reflexivity, self-reflexivity and institutional reflexivity. Structural reflexivity refers to where people are set free from the limitations of social structures. This means that people are able to critically reflect on the rules and resources of existing social structures and how these affect their social conditions of their existence. People can then begin to create their own rules.

Self-reflexivity refers to the process by which, in creating their own rules for existence, people reflect on themselves (Giddens, 1994). People must make decisions based on a set of rules that only they can formulate, based on the knowledge they have accumulated about themselves and the world. However, this knowledge is itself in a state of continuous renewal and re-definition in response to the accumulation of knowledge and social interaction. Previous external monitoring, in which many aspects of a person's identity were given or taken-for-granted, dissolves and is replaced by self-monitoring in which people develop the freedom to organise their own biographies.

The ideas of structural and self-reflexivity can be used as a way of understanding how HIV/AIDS has spread so rapidly in Africa and Asia. In making decisions about sexual behaviour people are using having to rely on their own, personal resources and their interpretation of social norms. In Africa and Asia people often contract

HIV/AIDS due to social norms of behaviour that run contrary to effective prevention, such as the use of condoms which is reinforced by a lack of knowledge about the disease itself, how it is spread and how it can be prevented. In *The Guardian* report 'I live for today in the full' (2004) it is argued that health care workers can have a significant impact on the disease if they are equipped with 'the skills and knowledge to deal with people with HIV/AIDS without being prejudicial'.

Institutional reflexivity is different in that rather than focusing on individuals, it refers to a collective form of reflexivity. Just as people have become reflexive, institutions have also become reflexive in that they monitor and control their own performance, adjusting their practices over and over again in response to changed circumstances or information (Lash, 1994a; 1994b). As institutions make such continual adjustments, in spite of the efforts of those within institutions to plan and achieve outcomes, what transpires is not necessarily what was intended, nor is there necessarily an awareness of what is actually taking place and its consequences. The uncertainty and insecurity arising from institutional reflexivity undermines the capacity of organizations to exert control as its collective power is dissipated by the fragmenting, ever changing, and increasingly complex environment in which they must operate.

The responses of governmental organizations at the national, regional and global level demonstrate signs of institutional reflexivity in their approaches to the HIV/AIDS epidemic. Ellwood (2002) reports that in spite of a growing HIV/AIDS epidemic in Kenya during the 1990s a World Bank structural adjustment program instructed the Kenyan government to begin charging a user fee to people attending public requiring a test for sexually transmitted diseases. This was supposed to employ a 'user pays' system to support the clinics. However, it resulted in a dramatic fall in the number of people attending the clinics leading to far greater potential for HIV/AIDS to spread. This policy whilst designed to have one effect, had unexpected and negative consequences for public health in Kenya.

Increasing institutional reflexivity has also compromised the ability and willingness of political and social institutions to come to grips with the effects of HIV/AIDS. This is leaving chronically disembedded, self-reflexive individuals exposed to the pernicious combined effects of HIV/AIDS and poverty. The group of people most affected by this phenomenon is women. Not only are gender and poverty inextricably combined, with 70 percent of the world's poor being women, but poor women are also very susceptible to HIV/AIDS infection (Ellwood, 2002). Across the world, at least 600 million people, most of them women and dependent children, live in shelters that place their lives and health at risk. Some 50,000 people, mostly women and children, die as a result of improper shelter, polluted water and inadequate sanitation and over 2 million HIV infected women are pregnant each year, over 90 percent of them in developing countries (McIntyre, 2003).

Reflexivity can be used to provide new understandings about why HIV/AIDS is reaching pandemic proportions in Africa and Asia. The combined effect of structural, self and institutional reflexivity is creating a situation where prevention is a difficult task. For example, in South Africa, there are more than four million known cases of HIV/AIDS, the majority of whom are women (WHO/UNAIDS, 2004). This is due to an array of individual and institutional factors that fall into biological, social, cultural and economic areas (CPC, 2003; WHO/UNAIDS, 2004), including the inability of governments to improve the status of women. This has resulted in women often being powerless to protect themselves against infection due to limited political rights, violence, economic deprivation, a lack of recognition for economic activity, and unequal rights in marriage. In Asia, the situation is very similar. The lack of knowledge about HIV/AIDS and institutional incapacity in the face of the epidemic has created a situation where the chain of transmission spreads first among injecting drug users, followed by a spread among sex workers (mostly women), then into the general population via the clients of sex workers. Most women infected in Asia have been monogamous wives or regular partners of higher risk men. The final link in the chain of infection is to children who become HIV-positive through maternal infection (Ruxrungtham, et al., 2004).

## **Implications for Policy**

The spread of HIV/AIDS across Africa and Asia has a range of policy implications across many areas. In terms of broad social, economic and environmental policy, the HIV/AIDS epidemic has the potential to compromise the

sustainability of many nations. The emergence of a new class of people who are infected with HIV/AIDS who have, at least in part, been defined in terms of an individualization of social risk and personal inadequacy. The social crisis of HIV/AIDS is increasingly manifest as an individual crisis disconnected from its origins in the social realm. This emerging phenomenon and the acutely negative consequences requires urgent and coordinated policy responses before people living with HIV/AIDS in the poorer regions of the world are permanently consigned to short and impoverished lives on the fringes of society.

The application of a reflexive modernization perspective to examine the effects of HIV/AIDS in Africa and Asia allows us to analyse the context within which people living with HIV/AIDS exist in society and develop new and alternative policy responses. Using reflexive modernization, the overall effects of HIV/AIDS are that the society is categorising people with the disease as 'zombies' (Beck and Beck-Gernsheim, 2002). Drawing on Beck and Beck-Gernsheim (2002) it is possible to conceptualise the zombie category as referring to those who are 'dead and still alive'. As such it leads us to ask important questions: Who are the people with HIV/AIDS? What does it mean to them and the rest of society? Of course they are people with fundamental human rights – but we have demonstrated that these begin to disintegrate under conditions of poverty and ignorance.

There is a constellation of views about the HIV/AIDS epidemic occurring across Africa and Asia and different policy responses. People with HIV/AIDS get included and excluded without any means of participating themselves in the decisions of policy-makers. From the point of view of wider society, people with HIV/AIDS are defined and redefined by individual decisions and choices. Individuals must choose how they will relate to those with HIV/AIDS, particularly family members. Current social perspectives and policy approaches leads to people with HIV/AIDS living in society but not of it. To society they are already dead – they are zombies.

We are living with a rhetoric about the HIV/AIDS 'crisis' in Africa and Asia, but HIV/AIDS is not the cause of the historical disadvantage and gap between rich and poor it is but one surface upon which this phenomenon is visible. Everywhere HIV/AIDS strikes society, for example the spread by migrant workers, it is distorted into the personal sphere. In this case, migrant workers are the mode of transmission but the spread is caused by poverty and ignorance in both the source and destination community. This is compounded by the lack of institutional solutions leaving vulnerable people to negotiate the epidemic on the basis of their own, often limited personal resources. This is transforming how we can respond to the spread of HIV/AIDS.

In order to sustain the lives of those infected with the HIV/AIDS, the link between poverty and the disease has to be acknowledged as the poor have fewer means to fight the disease or minimise its effects. Since poverty plays a role in creating an environment in which individuals become susceptible and vulnerable to HIV/AIDS, poverty reduction will be at the core of a long-term sustainable solution. Apart from poverty being one of the major influences to the spread of HIV/AIDS, equally important is the recognition of income and gender inequalities which is demonstrated by the high prevalence of HIV/AIDS in regions such as Africa and Asia with large inequalities. Policy implications also include determining a political will to combat the epidemic and the stigma associated with HIV/AIDS. Furthermore, ignoring the serious threats HIV/AIDS pose to sustainability is no longer an option for governments and the privileged classes of developing nations, nor is it an option for western governments. Lessons learned in successful responses in Cambodia, Thailand and Uganda all point to the importance of leadership, commitment and continued effort from all sectors of society, including people living with HIV/AIDS to successful local, national and international responses.

In order to break the complacency of the advantaged regions of the globe, active use of global policies can help convince both world leaders and civil society of the consequences of action and inaction and assist in directing the responses to achieve the greatest effect. There is a need for reconsideration of the unsuccessful social evils approaches of individualism and a strengthening of international commitment to addressing the epidemic. Greater advocacy based on improved social understanding of specific situations and an understanding of the most urgent local prevention needs is needed to break the rate of complacency of privileged communities around the world.

## Discussion

Whilst there is no doubt that the reflexive modernization perspective is an influential and original formulation, there are several areas around which criticism has been focused. Two themes evident in the literature are relevant to this paper: an over-emphasis on the transformational power of risk and the problem of reconciling reflexivity and reflection.

In maintaining that regardless of social inequality we are all united in a shared community of fate, Beck claims that consciousness about inequality is eroded since we are all equally threatened by the same, inescapable global risks. Sooner or later, risks catch up with those who profit from them causing a kind of equalising effect. We are thus all confronted similarly by the same risk-fate. This study supports Elliott's (2002) claim that Beck does not adequately account for how individuals are drawn into the processes of reflexive modernization (eg individualization) which may embody the asymmetrical power relationships of social inequality evidenced in the widening gap between rich and poor communities and the socially excluded. The HIV/AIDS epidemic in Africa and Asia seems to provide examples of both Beck's and Elliot's claims. As Elliot argues, social inequality and social division rather than being equalised by the risks presented by the spread of HIV/AIDS is being accentuated. However, there is also no doubt that in Africa and Asia, social and economic well-being is no defence against infection, thus there is also an equalising effect.

Problems also arise in the way reflexivity and reflection are treated as separate phenomena in reflexive modernization theory. The 'reflexivity' of reflexive modernization implies unthinking and unknowing responses to modernization whilst the 'reflection' of reflexive modernization refers to a deliberate (knowing) response to the unintentional and unseen (reflexive) dissolution and endangerment. However, reflection does not necessarily follow-on from reflex. As Elliott (2002) points out, the problem here is that in splitting reflexivity and reflection into mutually exclusive categories, Beck has separated blind social processes and practices (reflex) from knowledge residing with social actors (reflection). Rather than reflex and reflection being separate, they are bound together in a complex relationship requiring the development of more heterogeneous, interpretive analytical methods. HIV/AIDS responses and intervention programmes may be seen as being somewhat reflexive rather than having an inclusive reflexive/reflective focus. Most early responses to the epidemic were centred around the identification of individual risk behaviours and the prevention of new infections through modification of such behaviours. A reflective approach recognises that policy settings acknowledge that individual behaviour needs to be considered within its economic, social and cultural context.

In sum, reflexive modernization may be criticised for placing too much emphasis on risk and ignoring the connections between reflexivity and reflection. Such problems have led Lichtblau (1999) to maintain that the concept of reflexive modernization lacks theoretical ambition and therefore cannot be taken seriously. However, in a time when we are confronted with paradox, contradiction and uncertainty, novel ideas, insights and methods are needed. Reflexive modernization is particularly useful in this respect with regard to providing a broad theoretical framework for examining the effects of the HIV/AIDS epidemic. It can help us begin to explore the connections between the medical, social, economic, cultural, political, environmental and technological contexts enabling these different levels of influence to be integrated and understood in their entirety.

Understandings of the HIV/AIDS epidemic and its implications for sustainability provided by the reflexive modernization perspective present a major challenge for policy-makers. Firstly, the issue of tackling social inequality is central for policy-makers. It is an issue that cuts across major areas of public policy critical to tackling the growing HIV/AIDS crisis in Africa and Asia (eg education, health, social security). Secondly the reconciliation of reflex and reflection coupled with the reality of difficult to track, discontinuous change, are challenges that policy-makers cannot avoid if they are to develop relevant and effective policy. For policy-makers it means confronting the difficult task of confidently tracking trajectories of discontinuous change. If the only responses to the challenges posed by the growing AIDS/HIV epidemic are narrow medically-based focussing on treatment for those with the disease and individual behaviour patterns for prevention whilst ignoring the broader issues of social, economic and environmental sustainability, then policy-making becomes at best a futile endeavour.

## Conclusion

In Africa and Asia, there is a tendency to marginalise people living with HIV/AIDS, forcing them to live on the fringes of society. The disease itself, and those affected by it, have attracted unique levels of opprobrium and social stigma (Cameron, 2001; Ellwood, 2002). Extreme ostracism forces sufferers out of society and into an anonymous, zombie existence (CPC, 2003). The stigmatization of the disease pushes such people further and further away into non-existence. A cycle of guilt, shame and denial is set in motion impeding treatment and prevention of infection.

The combined effect of poverty and HIV/AIDS has the potential to lock whole nations in Africa and Asia into a downward spiral of poverty, ill-health, lessened capacity to engage in productive activity, and compromised sustainability leading to even greater poverty. The reflexive modernization perspective allows us to break into that spiral by allowing a broad policy view of the complex issues that surround HIV/AIDS and sustainability. It recognises that there are social, economic, political, technological, cultural and environmental dimensions to the problem and policy responses must be equally broad and coordinated.

Reflexive modernization brings into focus the process of individualization as an important issue that should be recognised in order to begin bringing the HIV/AIDS epidemic under control. In addition the national and global institutions of government must begin to be more reflective rather than reflexive. Instead of simply responding to the epidemic and associated humanitarian crises in a reflexive way as they occur, institutions could also adopt a reflective approach in which events are anticipated and the consequences of current policy trajectories are examined not just in economic terms but also in the broad terms outlined above. People and communities in which they live can then be re-connected to social, political, cultural and economic institutions so that they are not left to their own fate reliant on their own, often inadequate resources. To allow this disconnection to grow unabated would be courting disaster.

In using reflexive modernization to examine the HIV/AIDS epidemic in Africa and Asia, it is possible to view HIV/AIDS as having direct or indirect effects that have implications at the local, national, and global levels. Direct effects are generally localised at the personal and community levels through people contracting the disease or having someone close to who is infected and the economic and social effects on the local community. Indirect effects are more difficult to identify but are perhaps more insidious and have much wider implications. Nations whose sustainability is compromised by HIV/AIDS may become failed states with all its attendant problems that have the potential to spill over national and even continental boundaries whilst compromised sustainability of the environment can also have significant side-effects far beyond national borders. Policy approaches towards HIV/AIDS that ignore these broader issues of society, culture, economy, politics and environment cannot be maintained. To continue on the present course, may be to consign whole communities, or even nations to the category of 'zombies', locked into a vicious, downward spiral towards unsustainability and collapse. To break this cycle requires a more reflective approach emphasising imagination, and forethought recognising the need for coordinated or joined-up government responses at the local, national and international levels.

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# **The Contribution of Sustainable Tourism Development in Poverty Alleviation of Local Communities in South Africa**

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## **Abstract**

The millennium declaration of the UN identified poverty alleviation as one of the most compelling challenges the world is facing in the 21<sup>st</sup> century. Tourism is already one of the most important sources for foreign exchange earnings and job creation in many poor and developing countries. The elimination of poverty can only be achieved only if benefits of growth can be redistributed to the poor or through brining the poor into the economic activities through creating of jobs or through entrepreneurial initiatives. This study attempts to provide a framework for tourism development to maximise the benefits of tourism for local communities. Furthermore, tourism has been contributing to poverty alleviation since the beginning of its existence, however, in the last few years Tourism has drawn the world's attention to the undisputable potential opportunities for local communities to benefit and overcome their economic problems.

## **Introduction and Overview**

Tourism is the world's fastest growing industry and is expected to continue to grow between 4 and 5 per cent per annum. The dramatic growth of tourism over the last 50 years is one of the most remarkable economic and social phenomena of this period. International tourism arrivals in South Africa grew, in real terms, from 25 million in 1950 to 698 million in 2000. That represents an average annual economic growth rate of 7% over a period of 50 years. (WTO, 2002d L: 51).

There were 692.6 million of international arrivals in 2001 (WTO, 2002e) and the World Tourism Organisation forecast for 2020 is 1.6 billion (WTO, 2001a). Since the 1950s, developing countries have received increasing numbers of the international tourists, largely from developed countries. They are attracting an increasing share of global international tourist arrivals from 3% in 1950 to 45% in 2001 (Moreno Melgarejo, 2003). Some explanations of these trends are raising standards of living in the developing countries, declining long-haul travel costs and increasing holiday entitlements. Changing demographics and strong consumer demand for exotic international travel have resulted in significant tourism growth. It is obvious that tourism is a big business, internationally; it represents one of the world's largest economic industries. As personal living standards and disposable income continue to improve, with fewer restrictions on travel and with more convenient and cheaper transport, both the contribution from tourism to the world economy, and overall number of tourists, are expected to grow. Without a doubt tourism is an increasingly important economic activity. (Godfrey & Clarke, 2000:1).

In this context, tourism brings relatively powerful consumers to the developing and least developing countries, potentially an important market for local entrepreneurs and engine for local sustainable economic development. Between 1985 and 1995 average gross receipt per tourist arrival increased by 117% in the Developed Countries, In the Developing Countries the increase was only a 75% rise from US\$ 401 to US\$ 702 in that period. This suggests that there is an economic and more specifically pricing pressure from Developed Countries on the Developing Countries and that there is scope for increased local earnings (Goodwin, 1998:2)

Moreover, in 2000, tourism ranked third among the major merchandise export sectors for both Developing Countries and Least Developing Countries. If petroleum industry exports are the major source of foreign exchange (only in OPEC countries), tourism is the primary source of foreign exchange earnings in 49 LDCs (WTO, 2002a:10). The special importance of the tourism industry represents a huge possibility for economic development in a significant number of countries in the world. In 2004 the world's travel and tourism is expected see real growth of 5.9% in total demand and generate US\$ 5,490.40 billion of economic activities, including 5.2% in GDP, 4.6% in employment, 4.2% in terms of capital investment and 2.8% in terms of government expenditures. (WTTC, 2004:2).

That is to say, tourism is a powerful tool for growth in the Developing Countries and the Least Developing Countries (LDCs).

The WTO concerns that the benefits of tourism should be widely spread in society and that the poor should benefit from tourism development. This organisation is convinced that the power of tourism can be more effectively harnessed to address the problems of poverty more directly. In order to achieve these goals, a new agreement has been established between the WTO and UNCTAD (United Nations Conference of Trade And Development), that is referring to Sustainable Tourism as a tool for Elimination of Poverty (ST-EP program). To meet this objective, the WTO and the UNCTAD concerned with advancing the development of the world's poorest countries, agreed in June 2002 to join efforts to implement a new framework to assist DCs and LDCs in poverty reduction through tourism.

Tourism development in Developing Countries is a complex phenomenon with many different factors affecting it and variables that can be controlled in one way or another. Furthermore, a focus on poverty alleviation through tourism should become a priority in tourism development strategies in these countries. Increased tourism always carries the risk of harming the very attributes that attract visitors in the first place, as well as putting pressure on the local infrastructure. Similarly, the social and economic impacts on local communities are not always as positive as one would expect. Therefore, it is necessary to better identify and understand all the impacts, in order to find out the right solutions.

Indeed, tourism is the key to the economic development for South Africa as one of the richest and economically most advanced countries on the African continent. For decades, however, the country's apartheid regime prevented it from achieving its potential, leaving widespread disparity and poverty in its legacy, and resulting in a high level of socio-economic inequality. (World Travel and Tourism Council report 2004:26)

In 1994, at the end of the apartheid era, the South African Government announced an ambitious campaign to make tourism the country's number one industry in the creation of new jobs and generation of foreign earnings by the year 2000. However, ten years on – while it has grown substantially and is now poised to overtake mining in respect of contribution to the GDP – South Africa's tourism industry has not delivered the ambitious job creation and economic growth anticipated. (World Travel and Tourism report 2004:27)

A great emphasis needs to be placed on communicating the government's vision and strategies necessary for educating the nation, this is required in order to create awareness of the socio-economic benefits of tourism and to fight ignorance of the negative social and economic impact of resistance to change our mindset towards being part of the new world. The awareness will ensure full support from leaders as well as local communities. Such strategies have been long developed by the government to implement an adult learning approach as well as educating the new generations in schools as well as in Higher Education to produce qualifying learners, who will be able to demonstrate and contribute in the execution of tourism strategies to achieve the nations' goals and objectives. The success of such approaches will lead to enhancement of quality of life and attaining the socio-economic equality and stability required for the new South Africa. This approach profiles the kind of learners who will be equipped to handle the demands of tourism in the 21<sup>st</sup> century. There is no doubt that the success of any policy or strategy depends on two critical success factors, Firstly, the suitability of the policy to the country and its residents in order to serve its purpose and achieve the objectives, which have been defined by the nation, and secondly, the strategy implementers and their commitment towards the strategy.

## **Sustainability: A Prerequisite for Tourism Development**

The World Tourism Organisation defines sustainable tourism as “tourism which leads to management of all resources in such a way that economic, social and aesthetic needs can be filled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems. (WTO Report 2002:7)

During the 1980s, it became apparent that major global environmental changes were occurring suddenly and silently and those scientists had not predicted these changes. The world also became more aware that there was an element of uncertainty and risk in relation to the effect of a range of human activities on global environments. To rectify these problems, fundamental changes were required in our style of living.

Tourism is most ideally suited to adopt sustainability as a guiding philosophy. There are many reasons for that;

- Apart from transport, tourism does not consume additional non-renewal resources.
- A community's resources, its culture, traditions, shops, leisure facilities, etc represent the core resources base for tourism.
- Tourism use of resources, both natural and cultural, should be non-consumptive, making them renewable.

- Tourism represents one of the few economic opportunities available to remote communities.
- Tourism provides real opportunities to reduce poverty, create employment for disadvantaged people and stimulate regional development.
- Tourism has proven to revitalise cultures and traditions.
- Tourism can provide an economic incentive to conserve natural and cultural assets.
- Tourism has been shown to foster greater understanding between people and a greater global consciousness.

And so, sustainable tourism is really an issue of how best to encourage tourism growth while minimising costs. (McKrecher, 2003:4)

#### **Environment**

As tourism moved into the 21<sup>st</sup> century, the enterprises have to make the environment a priority. Because tourism now is the world's largest industry, the environment is taking centre stage in tourism development. Tourism is not only a powerful economic force but also a factor in the physical environment as well.

WTTC subsequently proceeds to examine the key environmental issues under five headings, namely;

- Global warming
- Depletion of ozone layer
- Acid rain
- Depletion and pollution of water resources
- Depletion and pollution of land resources

In examining the possible implication for tourism, the WTTC expresses particular concern with respect to the depletion and pollution of land resources. It states that the long-term implications of resource depletion are obviously extremely serious. Even over the next few decades the travel and tourism industry could find that; Political instability or increased competition for land could lead to loss of potential new tourism destinations and degradation of existing destinations.

Loss of landscape and wildlife could cause a decrease in customer satisfaction with tourism products and hence lower propensity to travel to some areas. Higher fuel prices could lead to operational price increases and corresponding decreases in the number of travellers in the price-sensitive markets. WTTC also presents a positive vision of tourism and the environment, stating that; Tourism is an integral aspect of modern societies. Global awareness of environmental damage is developing rapidly. The resources of the world's largest industry can and must be harnessed to achieve environmental goals. The industry has the potential to influence customer to achieve beneficial environmental effects. Environmental lobbies will add pressure to develop good environmental practice. (Goeldner, 2003:464)

#### **Carrying Capacity and Multiple-Use**

Carrying capacity and multiple-use are two important concepts that enable societies to make more efficient use of tourist facilities and land resources. Carrying capacity is a notion that recognises that both natural and man-made attractions have upper limits in their capacity to absorb visitors.

Multiple-use is a strategy that recognises that a limited supply of recreational land often needs to be used for several purposes. It is possible, for example for some forest recreation areas in Southern Africa to be used for logging as well as tourism.

#### **Primary/Secondary Tourism Industry**

Primary industry refers to the industry role players that operate in the forefront of what is know as the tourism industry and generate income or revenue, such as travel agents, airlines, travel professionals, etc.

The secondary industry refers to the players that are on the periphery of the formal industry such as the public and private sector, tourism organisations such as IATA, PATA and ASATA, banks, souvenir shops and passport and customs control at the entry and exit gateways at airports and ports.

#### **Conservation/Preservation**

Conservation refers to plan management of sites and places. Plenty of positive evidence about tourism's part in conserving Europe's building treasures and historic sites, much less written about the sort of impact in the third world. Four main conservation influences are notes by Mathieson and Wall in their review of the worldwide literature, namely;

- There is the rehabilitation of existing buildings and historic sites.
- There is the transformation of old buildings to new uses.
- There is the conservation of natural resources.

- There is the introduction of planning procedures and control to ensure good management of the environment. (John Lee, 1998:54-55)

## Goals of Development

According to Sharpley & Telfer (2002), the goal of the process is, in effect, the self-actualisation of individuals within a society, embracing at least five dimensions:

1. An economic component - the creation of wealth and equitable access to resources;
2. A social component - the improvement of health, education, security, employment and housing opportunities;
3. A cultural dimension - the protection or affirmation of cultural identity and self-esteem;
4. An ecological dimension - which reflects the emergence of environmental sustainability as a guiding principle of all development policies; and
5. The full-life paradigm - the preservation and strengthening of the meaning system, symbols and beliefs of a society.

Development then is a complex, multidimensional concept which not only embraces economic growth and 'traditional' social indicators, such as healthcare, education and housing, but also seeks to confirm the political and cultural integrity and freedom of all individuals in society. It is, in effect, the continuous and positive change in the economic, social, political and cultural dimensions of the human condition, guided by the principle of freedom. It has been argued (in a rather romantic, idealistic sense) that underdeveloped, pre-industrial societies may, paradoxically better represent the 'good life' than developed societies: 'the world's most primitive people have few possessions, but they are not poor. Poverty is not certain small amount of goods, nor is it a relation between means and ends; above all it is a relation between people' (Shalins in Sharpley & Telfer, 2002).

## Impacts on South Africa as a Developing Country

Tourism is a growth industry, offering communities of all shapes and sizes a unique development opportunity. However, not every community is suited to tourism, nor for that matter is tourism development necessarily appropriate for every community. Tourism impacts can be both positive and negative, and the effect depends very much on the character of the area and the local circumstances (Godfrey & Clarke, 2000: 4).

Later on in the text, we will explain the essential role of local communities in tourism development. Later on, we will point out the importance of environmental, socio-cultural and economical impacts of tourism development. The contribution of tourism to regional economies is measured in similar fashion as that for national economies. Its share of regional income or output can be estimated either in terms of direct effects or, via multiplier studies, of direct and indirect effects (Williams & Shaw, 1991). Leakages and linkages are two interesting concepts and also explained in this chapter.

### Local Communities as Central Point

Of the variety of models addressing tourism impacts, Britton's (1989) approach, based on the "Dependency Theory", maintains that in order to understand the tourism industry one must consider the organisation of international tourism and examine the structure of the peripheral (host) economy. This framework is based on the assertion that large companies from the industrialized world exerting influence over or controlling tourist demand, transportation and accommodation dominate international tourism. Within the peripheral economy, Britton asserts that the multinational companies exert control through 'system determinants' such as ownership and the use of package tours and agreements which are unfavourable for the host country but which can be forced through due to the dominance of these companies. On the other hand, Preister (1989) considers Britton's "Dependency Theory" to be global for use at local level. He claims that locally affected people are not shaped passively by outside forces but react as well, at times even changing the conditions of the larger system, and that the outcome of tourism development is a negotiated process.

Communities are a basic element in modern tourism. They are the focal point for the supply of accommodation, catering, information, transport facilities and services. They're local natural environment, buildings and institutions, their people, culture and history, all form core elements of what the tourists come to see. Whether as towns, villages or cities, every community has tourism at one level or another, and is affected by the growth and development of the industry (Godfrey & Clarke 2000: 3).

Community based projects are the most suitable for a sustainable tourism development where the community is participating actively in the decision-making process. Clearly, governments should be involved in establishing guidelines and formulating laws to guide the planning and implementation of tourism development. However, this is not enough. Local community involvement is necessary to enhance or to further develop sustainable communities. An important precondition is that tourism development will be community based, yet it needs the support of locals, regional and national governments. Inskeep points out that host communities must have a right of voice in shaping their future community and has called for the maximum involvement of the local community to maximise socio-economic benefits of tourism for the community (In Tosun 2000: 616). In doing so, the first thing to achieve is the local communities' understanding on the importance and the repercussions of tourism development in their region in order to encourage an authentic participation and involvement. Local communities and the various stakeholders must be familiar with the process to appreciate it and thereby support it (Cottrell, 2001: 7).

#### **Environmental Impacts**

Any form of industrial development brings impacts upon the physical environment in which it takes place. In view of the fact that tourists have to visit the place of production in order to consume the output, it is inevitable that tourism activity is associated with environmental impacts (Cooper et al. 1998:149). For that reason, traditionally some authors have pointed out that tourism can lead to environmental negative consequences. The highly polarised nature of development also generates intense environmental problems. This reduces the quality of life for locals as well as for tourists and, ultimately, may threaten the viability of the tourist industry itself (Williams & Shaw, 1991).

Depletion of natural resources can result in water shortages; create great pressure on other local resources like energy, food, etc., that already might be in short supply or destroy beautiful scenic landscapes. Pollution from tourists has impacts on the global level that disturbs the local population of the caused community. Solid waste and littering in the nature despoils the natural environment. The more physical impacts are degradation and loss of wildlife habitats and of scenery, and disturbance and erosion of the local ecosystem caused by clearing forested land and construction of tourism facilities and infrastructure (UNEP, 2001). However tourism could be positive for the preservation of natural areas. In many tourism projects the conservation of the natural, cultural and built environment is an important motivation for the initiation of the project. Moreover, some of the projects tend to deter local communities from illegal use and overuse of natural resources as well as they try to integrate the protected natural areas in regional and local development plans and programs. Therefore, tourism could and should contribute positively to environmental preservation. This sentence has more sense when we think about tourist motivation in visiting one specific place. The basic attributes must be preserved as a main goal benefiting the sustainability of the project. In the next the benefits and costs on environmental impacts:

#### **Socio-Cultural Impacts**

Tourism has an amazing power able to reach the majority of the world's 10.000 distinct societies living in over 200 states. But, in doing so, it has created the risk of intercultural conflicts, and has also created the potential for tourism to be caught up in intercultural conflicts (Robinson, 1999: 6). According to Robinson (1999: 1), the desire to make contact with one's own culture(s) in all its forms, and the search for experiences of other cultures is very much at the heart of tourism. But the process by which tourists experience culture, and the way it is used by the tourism industry and host communities, are increasingly characterised by conflict. Providing opportunities for tourists to learn about and experience cultures requires consideration of both the positive and the negative outcomes for the host communities (Besculides, Lee & McCormick, 2002: 304). With the growth of tourism and its fragmentation into specialized forms, such as ecotourism and cultural tourism, there has been increased pressure placed by tourists and the tourism industry on indigenous people. It is obvious that tourism is bringing people with very different value systems into the territories where indigenous people have inhabited for centuries. However, these kinds of influences are not exclusive from the tourism industry. From a historical point of view, something similar has happened, whenever a social contact between to different cultures was overtaken.

TABLE 2: SOCIO-CULTURAL IMPACTS: A COMPARISON

Positive effects	Negative effects
-Developing positive attitudes about each other	-Developing negative attitudes about each other
-Learning about each other's culture and customs	-Tension, hostility, suspicion and misunderstanding
-Reducing negative perceptions and stereotypes	-Isolation, segregation and separation
-Developing friendships	-Clashes of values
-Developing pride, appreciation, understanding, respect and tolerance for each other's culture	-Difficulties in forming friendships
-Increasing self-esteem	-Feelings of superiority and inferiority
-Psychological satisfaction with interaction	-Communication problems
	-Ethnocentrism
	-Culture shock
	-Dissatisfaction with mutual interaction

(Source: Robinson, 1999:9)

### Economic Impacts

As we have already seen, tourism is rapidly emerging as an important economic sector in Developing Countries and LDCs. It offers opportunities for economic development in areas that have otherwise limited development activities. However, tourism is not a traditional industrial sector, and is best understood as a response to a particular consumer demand. The activity creates demand for a wide range of products and services purchased by visitors and tourism companies, including a range of products supplied by other industrial sectors (e.g. agriculture, building supplies, crafts and soft furnishings) which are not traditionally thought as part of the tourism sector but have been identified as tourism connected products in the Tourism Satellite Account methodology (WTO, 2001c: 59).

Tourism development has been traditionally been pursued for its impacts on employment and economic growth, and perhaps most significantly for foreign exchange earnings. During the period 1995-1998, tourism revenues were one of the five leading sources of export revenue for 69 Developing Countries. Among the latter, tourism revenue was the main source of foreign currency in 28 countries, its share in total exports ranged between 79 and 20 per cent; in 27 countries it accounted for between 20 and 10 per cent; and in the 24 remaining countries it was around 10 per cent.

Of the 100 or so poorest countries, tourism is significant in almost half of the low income and virtually all of the lower-middle income countries (UK Department for International Development (DFID), 1999. In WTO 2002a: 18). Tourism is a principal export (features in the top five) for 83% of developing countries and the principal export for one third of developing countries (Page, 1999. In WTO, 2002a: 18).

The economic evaluation of tourism is difficult to calculate. However, the WTO's proposal about "The evaluation of the economic incidence of tourism" has been the building of the Satellite Tourism Account (STA). Using the STA it is possible to identify the value of tourism to the national economy and its impacts through different industries. So, it is conceived to quantify the tourism effects in the national economy, in a way that can help the public responsible, the business managers and common people to take documented decisions based on credible, comparable and confirmed data with the rest of the national accounting (For more information see WTO, 2001d). It is not yet widely implemented in Developing Countries and LDCs. However, WTO is working on that process in order to get more homogenous tourism data among the country members. Among the most important advantages of tourism development we can find:

- Employment opportunities, economic diversification and growth (especially for small and medium enterprises), redistribution of wealth among the countries and regions. Among the primary reasons we have to point out that tourism offers, in principle, more opportunities for backward linkages throughout the local economy than other industries. Such opportunities include both direct links, such as the expansion of the local farming industry to provide food for hotels and restaurants, and indirect links with, for example, the construction industry (Sharpley & Telfer 2002). The contribution of tourism to the local economy is also often undervalued. The
- WTO defines five sorts of positive impacts on livelihood, any or all of which can form part of a poverty reduction strategy (2002a: 37):
- Wages from employment. We can distinguish three different types of employment generated by tourism (Kontogeorgopoulos, 1998: 315):

- Direct employment refers to those occupations directly derived from and dependant upon tourism and includes employment in accommodation establishments, shops, restaurants, night clubs, bars, and government tourism administration, and transport and tour companies.
- Secondary, or indirect, employment occurs in sectors supplying the industry and results from increased demand for souvenirs, food products and other such items affected by tourism demand.
- Finally, the spending and circulation of local tourism income creates induced employment in the local economy.
- Earnings from selling goods, services or casual labour
- Dividends and profits arising from locally owned enterprises
- Collective income which may include profits from a community run enterprise, land rental, dividends from a joint venture or levies – these incomes can provide significant development capital and provide finance for corn-grinding mills, a clinic, teachers, housing and school books.
- Infrastructure gains, for example roads, piped water, electricity and communications.
- Tourism encompasses a whole range of economic opportunities which have an impact on many different social and economic sectors, transport and communications infrastructure, water supply and sanitation, education, public security, cultural services, immigration and customs – as well as accommodation providers and their suppliers. Reflecting the diversity and complexity of the industry, it is one of the few sectors were development master plan are still produced. There is much scope for increasing the emphasis on pro-poor economic development in these plans (WTO, 2001c: 59-60).



FIG. 1: TOURISM SHARE IN TOTAL EXPORTS IN SOUTH AFRICA (WTTC, 2004:6)

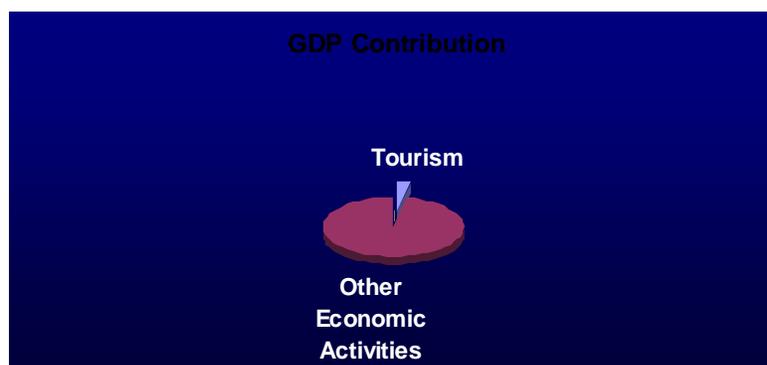


FIG. 2: TOURISM CONTRIBUTION TO GDP (SOURCE: WTTC 2003: 6)

### Leakages

As a modality of international commerce, tourism involves not only inflows of foreign financial resources but also outflows, referred to herein as “leakages”. When they exceed specific levels, these outflows can significantly neutralize the positive financial effects of international tourism (Diaz Benavides, 2001: 8). Pérez-Ducy de Cuello (2001) defines leakage as the process whereby part of the foreign exchange earnings generated

by tourism, rather than being retained by tourist-receiving countries, is either retained by tourist-generating countries or repatriated to them in form of profits, income and royalty remittances, repayment of foreign loans, and imports of equipment, materials, capital and consumer goods to cater for the needs of international tourism and overseas promotional expenditures.

According to WTO, “the average leakage for most developing countries today is between 40 and 50 percent of gross tourism earnings for small economies and between 10 and 20 percent for most advanced and diversified developing countries” (WTO, 1995: 55). Depending on the sources, some authors give more importance to the tourism leakage effect. According to Cottrell (2001: 1) in Thailand 70% of all money spent by tourists leaked out from the country (via foreign-owned tour operators, airlines, hotels, imported drink and food, etc). Estimations for other Third

World countries range from 80% in the Caribbean to 40% in India. A policy to reduce leakages will improve the chances for a more viable tourism sector. Leakages can be managed and need to be reduced. Management of leakages should allow the countries to profit as best as possible from the market expansion and the competitive factor that tourism demand represents for local industry and the local economic structure in all fairness to least developed and developing countries, without engaging in anti-competitive practices that contradict other WTO principles, and reduce the contribution of tourism to sound economic development (Díaz Benavides, 2001: 12).

At that point, it is interesting to point out that high-income luxury tourism it is not always the best strategy because it requires the provision of very high quality and high priced goods. It may actually result in increased leakage in some cases despite of the higher income it may generate.

#### **Linkages**

Tourism can provide an important diversification for other sectors of the local economy and create new ones, offering additional livelihood opportunities. From the tourism and a poverty perspective it is generally more productive to focus on the linkages with other economical sectors. If the linkages to the local economy can be increased, the extent of leakages will be reduced. One of the best ways to enhance economic benefits to the local community and to increase the contribution to poverty reduction is to increase the extent of linkages between the formal tourism sector and the local economy (WTO, 2002a: 38-39). The fact that the costumers come directly to the destination makes tourism to have a higher potential for linkages with the rest of the economy in the country. While tourism is a very big industry on a global scale, at the local level it is also very small. That is, the vast majority of tourism companies are small or medium sized operations, all offering a good range of goods and services to the traveller in one form or another (Godfrey & Clarke, 2000: 5). The linkages allow the revenues to circulate through the domestic economy, producing larger multiplier effects in terms of both employment and income for the local population (Brohman, 1996: 56). That is to say, use of local goods and services results in the creation of more jobs and opportunities especially for small and medium sized enterprises.

Many developing countries have found it important to improve the linking of tourism with the other sectors of the economy. Successful experiences of small economies and islands that have recently become emerging tourism destinations, such as Mauritius, Maldives, the Dominican Republic and other Caribbean islands, attest to the vital importance of the proper linkage of tourism with the rest of the economy (Prats in Díaz Benavides: 2001: 7). However, according to Díaz Benavides (2001: 7), despite developing countries efforts, the economic sustainability of tourism is being undermined by external factors beyond their control, notably the predatory behaviour of integrated suppliers which enjoy a dominant position in the originating markets of tourism flows.

#### **The Multiplier Effect**

The extent of integration of tourism in the national economy is known as the multiplier effect. The concept of the multiplier is based upon the situation that sales of one enterprise require purchases from other enterprises within the economy. This means that enterprises not only purchase primary inputs but also purchase goods and services produced by other enterprises in the local economy. “Thus, these supplying enterprises and the economic sectors also benefit from tourism, and multiply the economic benefits through creation of additional jobs, income and profits. The greater the integration of the national economy and linkages of its various economic sectors, the more benefits are accrued from tourism” (WTO, 2002c: 5). The tourism income multipliers refer to the amount of money generated in the economy by tourist expenditures, which is expressed as the percentage increase or decrease of the unit of currency spent. Income multipliers vary greatly from one country to another. For example, according to Cooper et al. (1998: 142), the multiplier is 1.73 in the United Kingdom, 1.59 in Sri Lanka, 1.27 in Jamaica, 1.23 in Egypt, 1.07 in Fiji, 1.03 in the Seychelles, 0.97 in

Mauritius, 0.82 in Philippines, and 0.79 in The Bahamas. For instance, '(a) study on Indonesia showed that the tourism multiplier (1.59) was the highest of all categories, including final demand and exhibit strong links to the agricultural sector, on which it had no direct effect at all' (Economic and Social Commission for Asia and the Pacific (ESCAP), in Díaz Benavides, 2001: 11). As would be expected, generally the multiplier is higher in larger more developed economies and lower in smaller less developed economies, especially island countries that must import a greater proportion of the goods and services used in tourism (WTO, 2002c: 5). Although the impacts of tourism may be broken down into discrete units such as 'environmental', 'socio-cultural' and 'economic', it is the way these impacts interweave and the way they are conditioned by political activity that determines their effects for good or bad (Brown, 1998: 78).

#### **Sustainable Development for Africa**

Since the United Nations Conference on Environment and Development, sustainable development has remained elusive for many African countries.

Poverty remains a major challenge and most countries on the continent have not benefited fully from the opportunities of globalisation, further exacerbating the continent's marginalisation. Africa's efforts to achieve sustainable development have been hindered by conflicts, insufficient investment, limited market access opportunities and supply side constraints, unsustainable debt burdens, historically declining levels of official development assistance and the impact of HIV/AIDS. The World Summit on Sustainable Development should reinvigorate the commitment of the international community to address these special challenges and give effect to a new vision based on concrete actions for the implementation of Agenda 21 in Africa.

The New Partnership for Africa's Development (NEPAD) is a commitment by African leaders to the people of Africa. It recognizes that partnerships among African countries themselves and between them and with the international community are key elements of a shared and common vision to eradicate poverty, and furthermore it aims to place their countries, both individually and collectively, on a path of sustained economic growth and sustainable development, while participating actively in the world economy and body politic. It provides a framework for sustainable development on the continent to be shared by all Africa's people. The international community welcomes NEPAD and pledges its support to the implementation of this vision, including through utilization of the benefits of South - South cooperation supported, inter alia, by the Tokyo International Conference on African Development. It also pledges support for other existing development frameworks that are owned and driven nationally by African countries and that embody poverty reduction strategies, including poverty reduction strategy papers.

Achieving sustainable development includes actions at all levels to:

- (a) Create an enabling environment at the regional, sub-regional, national and local levels in order to achieve sustained economic growth and sustainable development and support African efforts for peace, stability and security, the resolution and prevention of conflicts, democracy, good governance, respect for human rights and fundamental freedoms, including the right to development and gender equality;
- (b) Support the implementation of the vision of NEPAD and other established regional and sub-regional efforts, including through financing, technical cooperation and institutional cooperation and human and institutional capacity –building at the regional, sub-regional and national levels, consistent with national policies, programmes and nationally owned and led strategies for poverty reduction and sustainable development, such as, where applicable, poverty reduction strategy papers;
- (c) Promote technology development, transfer and diffusion to Africa and further develop technology and knowledge available in African centres of excellence;
- (d) Support African countries in developing effective science and technology institutions and research activities capable of developing and adapting to world class technologies;
- (e) Support the development of national programmes and strategies to promote education within the context of nationally owned and led strategies for poverty reduction and strengthen research institutions in education in order to increase the capacity to fully support the achievement of internationally agreed development goals related to education, including those contained in the Millennium Declaration on ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and that girls and boys will have equal access to all levels of education relevant to national needs;
- (f) Enhance the industrial productivity, diversity and competitiveness of African countries through a combination of financial and technological support for the development of key infrastructure, access to technology, networking of research centres, adding value to export products, skills development and enhancing market access in support of sustainable development;

- (g) Enhance the contribution of the industrial sector, in particular mining, minerals and metals, to the sustainable development of Africa by supporting the development of effective and transparent regulatory and management frameworks and value addition, broad-based participation, social and environmental responsibility and increased market access in order to create an attractive and conducive environment for investment;
- (h) Provide financial and technical support to strengthen the capacity of African countries to undertake environmental legislative policy and institutional reform for sustainable development and to undertake environmental impact assessments and, as appropriate, to negotiate and implement multilateral environment agreements;
- (i) Develop projects, programmes and partnerships with relevant stakeholders and mobilise resources for the effective implementation of the outcome of the African Process for the Protection and Development of the Marine and Coastal Environment;
- (j) Deal effectively with energy problems in Africa, including through initiatives to:
  - (i) Establish and promote programmes, partnerships and initiatives to support Africa's efforts to implement NEPAD objectives on energy, which seek to secure access for at least 35 per cent of the African population within 20 years, especially in rural areas;
  - (ii) Provide support to implement other initiatives on energy, including the promotion of cleaner and more efficient use of natural gas and increased use of renewable energy, and to improve energy efficiency and access to advanced energy technologies, including cleaner fossil fuel technologies, particularly in rural and peri-urban areas;
- (k) Assist African countries in mobilizing adequate resources for their adaptation needs relating to the adverse effects of climate change, extreme weather events, sea level rise and climate variability, and assist in developing national climate change strategies and mitigation programmes, and continue to take actions to mitigate the adverse effects on climate change in Africa, consistent with the United Nations Framework Convention on Climate Change;
- (l) Support African efforts to develop affordable transport systems and infrastructure that promote sustainable development and connectivity in Africa;
- (m) Further to paragraph 42 above, address the poverty affecting mountain communities in Africa;
- (n) Provide financial and technical support for forestation and reforestation in Africa and to build capacity for sustainable forest management, including combating deforestation and measures to improve the policy and legal framework of the forest sector.

## **Tourism Development and Poverty Elimination**

The governments of Developing Countries and LDCs must help create the right market conditions for developing tourism as a means to alleviating poverty. (WTO Newsletter, 2004:1).

Numerous academics, politicians and campaigners speak on the problem of poverty and underlying their discussion is the assumption that identifying the problem provides a basis for action upon which all will agree. Not everyone agrees on what the problem of poverty is, and the action advocated by different groups is not always the same thing.

Poverty amid plenty is the world's greatest challenge. Of the world's 6 billion people, 2.8 billion lives on less than \$2 a day and 1.2 billion live on less than \$1 a day. Even though the human condition has improved significantly, destitution persists. Faced with this picture of global poverty and inequality, there is a need for global poverty reduction strategies at the international level that would change this situation.

Most of South Africa's poverty has its roots in the legacy of apartheid. The current rate of poverty in South Africa is 45%. This translates into 18 million people who live on less than \$2 a day, as measured by the World Bank. The percentage of households reporting hunger in 1999 was 21.9 per cent. There are startling numbers for a country classified as "middle income" and reinforces the need for a poverty reduction strategy at the National level that will inform Provincial and District wide strategies. (World Bank report: 1998:17)

Access to quality employment is crucial to reducing poverty and vulnerability as well as reducing inequality in South Africa. Poor people are faced with both unemployment and the low quality of the jobs they otherwise occupy. The challenge is to create more employment opportunities for the poor. Creating a favourable climate for investment is one way of achieving this. But what is also required is investing in human capital to develop skills and improving well-being.

It is against the backdrop of poverty both globally and nationally that an analysis of poverty in South Africa is to be undertaken. Despite the Western Cape having the lowest overall percentage of people living in poverty in South Africa, large sections of its population continue to live in abject conditions. The Province suffers excessively from high levels of unemployment, low levels of human development and unequal access to physical and social infrastructure.

At the most fundamental level, poverty is extreme deprivation: the inability of people to afford the most basic needs for human life; food, clothing, shelter, health care and education. It robs children of their childhood. It condemns adults to illiteracy and it condemns many millions to disease. Until poverty is alleviated we cannot lay claim to being a compassionate society.

Africa is at the heart of WTO's concerns due to multiple handicaps it faces on the road to development, but also because the organisation is convinced that many of these obstacles can be overcome. Among these is poverty, which constitutes a scourge that can be reduced through tourism development. (WTO newsletter, 2004:1)

Furthermore, WTO believes that there is still a key role for the public sector in developing countries, to push ahead with the enabling conditions and strike the right balance between a market economy and necessary development.

The environmental and tourism adviser to NEPAD, Ms. Hespina Rukato, said that the partnership's goal is to reverse the underdevelopment and poverty on the continent. To achieve this, there is a need for African ownership of tourism facilities, the establishment of regional development programs and to set realistic targets. Moreover, she agreed that tourism development is an important component in the fight against poverty through increase in investment in both infrastructure and health.

Recognition by the international community of the importance of tourism as a potential driving force in the socio economic development of the third world countries suggests that tourism development can be an avenue toward a growing sphere of trading opportunities and accordingly, one of the most effective methods to avoid the risk of increased marginalisation from the global economy (which is systematic for most LDCs). A key element in this consideration is that in some instances poor people have ownership of resources such as cultural festivals and natural capital e.g. wildlife, forests, lagoons, scenery, etc, which may be utilised for tourism, hence the emergence of ST-EP. It is problematic to leave tourism development, especially in the context of Poverty Alleviation, to the private sector in many developing countries because of the existing financial constraints and weak institutional capacity of the private sector in such countries. This situation requires a partnership between the private sector and the national tourism authorities in order to design and implement an effective Sustainable Tourism for Eliminating Poverty (ST-EP) (UNCTAD, 2001).

#### **Sustainable Tourism a tool for Eliminating Poverty (ST-EP)**

For more than fifty of the world's poorest countries tourism is ranked first, second or third in terms of their economies, and tourism is the only service industry to show a positive balance of trade with flows from first world countries to developing countries exceeding those in the opposite by US\$ 66 million. Yet tourism has only very recently been recognised by some aid donors, some international funding agencies, and some segments of the industry as an appropriate instrument for poverty reduction. (WTO, 2000).

At the world summit on Sustainable Development held in Johannesburg, South Africa in August 2002, the WTO supported by UNCTAD, took a global lead in this field, launching the concept of "Sustainable Tourism as an effective tool for Eliminating Poverty" ST-EP, and beginning the process of putting a program in place to implement the concept. This initiative linked leadership on Poverty Alleviation that was the focus of the WSSD in Johannesburg in 2002. ST-EP may be seen as a response by the global tourism industry under the leadership of WTO to the UN millennium development goal to halve extreme poverty by 2015. (STCRC report, 2004:1).

ST-EP is not a new form of tourism. It is not a new kind of tourism product. It is an approach to tourism in which the tourism cake is titled so that benefits are specifically directed towards the poor. As a new field of endeavour for development assistance bureaux and international funding agencies there is no established track record on which they can draw to consider implementing their own policies. Hence a major component of the WTO program on ST-EP is to facilitate research and identification of best practice models. (STCRC report, 2004:1). Because tourism is often seen in narrow terms as purely a private sector, understanding its constellation of backward and forward linkages into all other areas of the economic activities, into society and culture, into the environment and into governments, are often ignored. However, once tourism is understood as a complex system its capacity to work as a positive tool for poverty reduction is enhanced. While ST-EP is relatively untried and untested, the pervasiveness of the tourism industry has impelled an

increasing number of agencies to develop policies designed to use tourism as a tool to alleviate poverty in these countries, these include notably the WTO, the Asian Development Bank, the World Bank and a range of UN technical agencies such as UNCTAD, UNEP and WCED.

### **Advantages of Tourism as a Development Strategy**

Tourism has considerable potential for growth in many Developing Countries and LDCs where it is a significant economic sector and growing; and that it has advantages when compared with other economic sectors. This can be summarised in the next points (adapted from WTO, 2002a: 33 / WTO, 2001c: 61 / Sharpley & Telfer 2002: 18-20):

- Tourism redistributes wealth. Both internationally and domestically, tourism is seen as an effective means of transferring wealth and investment from richer, developed countries or regions to less developed, poorer areas. This redistribution of wealth occurs, in theory, as a result of both tourist expenditures in destination areas and also of investment by the richer, tourism-generating countries in tourism facilities.
- Tourism is consumed at the point of production. Because of this the opportunities for individuals and micro-enterprises, in urban centres or marginal rural areas, to sell additional products (e.g. handicrafts and souvenirs) or services (e.g. guiding, music or dancing) to these potential consumers is therefore considerable.
- Most export industries depend on financial, productive and human capital.
- Tourism depends on these but also in natural capital and culture (e.g. natural parks, cultural heritage, scenery and beaches), which are assets that some of the poor have at the level to motivate travel. This is to say, tourism utilizes natural and cultural “free” infrastructure. This suggests that the development of tourism (and its subsequent economic contribution) is based upon natural and cultural resources that are free or belong to the country.
- No trade barriers to tourism. Unlike many other forms of international trade, tourism does normally not suffer from the imposition of trade barriers, such as quotas or tariffs.
- Tourism has particular potential in many countries with few other competitive exports.
- Tourism is a much more diverse industry than many others and can build upon a wide resource base. Diversity increases the scope for wide participation, and for the informal sector through livelihood diversification – for example where a farming household produces crafts or sells produce to a local lodge.
- Tourism is often reported to be more labour intensive than other productive sectors. Data from six countries with satellite account indicate that it is more labour intensive than non-agricultural activities, particularly manufacturing, although less labour intensive than agriculture (WTO, 2002a: 1999). - There is a greater uptake of jobs by women than in other sectors although it is not known if more jobs are taken by the poor and unskilled. (The percentage of female employment varies enormously by country, ranging from over 60% in Bolivia to fewer than 10% in some Muslim countries (DFID 1999. In WTO 2001c: 61).
- Tourism offers, in principle, more opportunities for backward linkages throughout the local economy than other industries. Such opportunities include both direct links, such as the expansion of the local farming industry to provide food for hotels and restaurants, and indirect links with, for example, the construction industry. As we have already mentioned the multiplier effect of this industry normally achieves a significant level.
- A variety of other, secondary reasons may also be suggested for the popularity of tourism as a development option. These include the facts that the development of tourism may lead to infrastructural improvements and the provision of facilities that are of benefit to local communities as well as tourists; that tourism often provides the justification for environmental protection through, for example, the designation of national parks; and, that tourism may encourage the revitalisation of traditional cultural craft and practices.
- Together they explain why virtually every country in the world disposes, to a lesser or greater extent developed a tourism industry.

### **Perceived Disadvantages of Tourism as a Development Strategy**

- The argument regarding dependency of tourism development in developing countries suggests that type and scale of tourism development in the developing world is to a large extent at the mercy of the international tour operators. In this regard, it may not be wrong to claim that developing countries are decision-takers, rather than decision-makers regarding the tourism development that has taken place in their territories. This is more obvious in mass-tourism destinations. For instance, there is evidence that international tour

operators and multinational companies in the tourism industry have shaped and directed the tourism development in Turkey and elsewhere in the developing world (Tosun, 2001: 298).

- Tourism can impose non-economic costs on the poor through loss of access to resources, displacement from agricultural land and social and cultural disruption and exploitation. In that way, negative impacts need to be managed. The issues of environmental management and planning at local level are real, and not unique to tourism. They need to be addressed through the good governance agenda (WTO 2002a: 34).
- Tourism is vulnerable to changes in economic conditions in the originating countries, which cause major swings in levels of economic activity in tourism in the destinations, and international visitor arrivals are also vulnerable to civil unrest, crime, political instability and natural disasters in destinations. However, it is not clear that the volatility of export markets for tourism is significantly greater than for other commodities (WTO 2002a: 34).
- It should be noted that, although there has generally been an upward trend in international tourism in recent years, not all global regions and countries have shared equally in that growth. Within most Third World regions, tourism has been monopolized by a few countries to the exclusion of the rest. For example, in Africa, three countries (Egypt, Morocco and Tunisia) accounted for 52.6% of the continent's international tourists in 1991, while seven countries (the above three countries and Algeria, Kenya, South Africa and Zimbabwe) represented 76.9% of the total (Brohman, 1996: 52).
- Tourism requires highly sophisticated marketing which budget requirement should be carried at national level (WTO 2002a: 34). Many developing countries have comparative advantage in tourism – or at least tourism constitutes one of their better opportunities for development. The disadvantages are more apparent than real when tourism is compared to other sectors (WTO, 2002a: 35). Tourism is an important industry part of the world economy of which it will become more and more important as we have already explained in this thesis. In this context tourism suffers and contributes from capitalism as a way of production. Some authors argue that capitalism is something unfair itself. For instance, D'Sa states that "Tourism is simply a product of the prevailing unjust economic and social underpinned by global capitalism. In any form of capitalist development, the primary goal is private profit for those with the means and the beneficiaries are invariably the business and political elites, (whether in the North or South). We have to cross the bounds of mainstream discourse and have the moral courage to acknowledge that capitalism is a flawed system with greed, inequality and exploitation at its heart. This order (and with it Third World tourism) is characterised by gross injustices, racism, the dominant role of Northern Trans-national Corporations (TNCs) and the erosion of ethical principles (D'Sa, 1999:

The Third World is already heavily in "debt" to the rich countries (mainly the G7, the richest of all) and has to sacrifice much of its health and education programs in order to pay up (D'Sa, 1999: 66). This is the reality we have to face and the reality which is asking for a severe reaction in order to achieve a "better" and more "fair" world. Tourism development drives in a sustainable way and should contribute something positive to this reality. Tourism brings northern tourist in direct contact with local communities. In this way, it is easier to create a social conscience about the situation of developing countries when tourists are forced to do it. While most of the time people use any kind of goods coming from Developing Countries and LDCs without asking themselves the way they were produced, or under what conditions, whenever a tourist travel to developing countries they find themselves facing a situation that should make them asking some questions.

## **Tourism Strategies versus Mass Tourism**

Disillusionment with mass tourism and the many problems it has triggered has led many analysts to turn away from past methods of tourism development in favour of "alternative tourism". According to Brohman (1996: 63) several authors have suggested that, under some circumstances, alternative tourism strategies might be promoted to encourage more community participation in tourism planning, a more equitable distribution of the costs and benefits of tourism, and more culturally appropriate and environmentally sustainable form of tourism. Even if some authors criticize this term because of its broad meaning (see Butler, 1992), Brohman provides a definition of this concept using a few recurring themes appearing in the alternative tourism literature (Brohman, 1996: 64):

1. Alternative tourism is thought to consist of smaller-scale, dispersed, low density developments. Often these developments are located in and organized by villages or communities, where it is hoped that they will foster more meaningful interaction between tourists and local residents.

2. Ownership patterns in alternative tourism are weighted in favour of local, often family owned, relatively small-scale businesses rather than foreign owned trans-nationals and other outside capitals.
3. Alternative tourism encourages community participation in local/regional planning concerning tourism and related development by creating mechanisms to allow local resident to participate in the decision-making process.
4. Alternative tourism emphasizes sustainability, in both an environmental and cultural sense.
5. Alternative tourism should not denigrate or damage the host culture; instead, it should try to encourage sensitivity and respect for cultural traditions by creating opportunities for education and cultural exchange. However, it is necessary to mention that every country has particularities which should be taken into consideration when deciding its own tourism development strategy. "Whatever alternative tourism strategy a country chooses, it should focus on the individuality, uniqueness, and particular strengths of its communities and regions.

## **Benefits of Tourism to Local Community**

### **Holidays**

When people go on holiday they usually think first about possible destinations, a relaxing program, good service, and how much it will cost. Holidays are a way to recharge their batteries away from home. The last thing on their mind is usually how the local people benefit from their holiday. It even seems they forget about this issue.

I will try to illustrate how regular tourism and community based tourism differ in terms of benefits and costs to the host communities, and not only economic, but also developmental, social, environmental, and cultural.

### **Passive or Active in Tourism**

"Just visit and leave"

Regular tourism is passive for both tourists and hosts. Tourists usually travel to get some peace, experience a different climate and landscape, see different cultures and have fun. Villagers in the host community just wait for them, pose for photos, and receive little money from their visit.

"Learning, Sharing, and Participating"

Community-based tourism, in contrast, is an active type of tourism. Both villagers and tourists learn from each other, share their experiences of their different ways of life, tourists participate in the daily life of local people, and both actively learn about differences between their cultures.

### **Local Benefits**

In regular tourism, tourists believe they provide some benefits to the community in different ways. They buy handicrafts, give candy or pens to the children, put money in the community donation box, or donate some used clothing to the villagers. The tourists truly believe they are benefiting the community, but in many cases it may not at all. How do they know where their money is going to? It could be shared among the community, but it may well go to just one or two influential people. Giving things to children only creates more problems of dependency, rather than encouraging self-reliance. If the local people are allowed to think and design their own vision of tourism in their community, they will be able to mitigate many of the negative impacts of regular tourism. Local communities can manage their own tourism program and get benefits from tourism. But of course, in most cases, it does not happen by itself. It does need the right guidance and facilitation, at least in the beginning stages, in order to be feasible and successful.

### **Community Based Sustainable Tourism (CBST) in the active role.**

CBST is a type of tourism that emphasizes the sustainability of the environment and society. Decisions are made by the community and programs are managed by the community. In this way the communities are the owners of the program and have a right over the way tourism is managed, with the purpose of encouraging sustainability and enabling learning among visitors to the community.

## **Role of Stakeholders**

There is a fundamental impasse between market values (profit, competition, survival of the fittest, acquisition, individualism) and community values (self-identity, sharing of wealth, cooperation, support of the weakest, spirituality, harmony with nature).

Apart from governments to provide basic protection to powerless communities and their environment, the tourists and the NGOs need to develop solidarity with local communities through education in the outbound markets.

#### **National and Local Government**

A more appropriately planned tourism development process is needed which would both spread its costs and benefits more equitably and which would be more sensitive to its social and cultural impacts. There is much that only governments can do – in terms of policies, regulations, and co-ordination. The government must;

- Incorporate pro-poor elements into tourism, rural development and growth strategies.
- Establish the necessary guidelines and legislation for planning and starting tourism projects considering pro-poor initiatives.
- Create and to start up a tourism development policy benefiting alternative tourism projects.
- Use planning controls and investment incentives to encourage private operators to make and implement pro-poor commitments.
- Provide technical assistance as well as training to facilitate the integration of poor population in the tourism projects.
- Point out the high potential economical linkages with other economic sectors.
- Reinvest benefits provided by tourism taxes in social improvements, creation of new services and infrastructure.
- Consult with poor residents when making decisions about tourism.

#### **Tourism and the Private Sector**

Tourism business and poverty reduction may seem very different. However, two facts deserve consideration (Roe et al., 2002):

- Tourism depends on a stable operating environment within a destination. Tourism is particularly vulnerable to local or international instability and extreme poverty could become an instability factor.
- Tourism to poor destinations is growing. Market trends reveal growing consumer awareness of socio-economic issues. Taking into consideration these two facts, tourism private sector should (Roe et al., 2002 and WTO & Moreno Melgarejo, 2003).
- Provide tourists with information on the importance of pro-poor tourism and highlight local enterprises and attractions that they can support.
- Provide advice and information to tourists on local cultures and traditions, encouraging them to dress and behave appropriately and to support traditional crafts and culture.
- Request local representatives to keep up to date with, and support, local initiatives.
- Provide a facility for tourists to donate to community projects. For instance, schools, clinics and so on.
- Provide business advice to local community wishing to establish complementary enterprises and eventually develop joint ventures and other types of partnerships with local people.

#### **Donors and Development Agencies**

Donors and development agencies can encourage tourism development by:

- Promoting tourist development as a tool for poverty alleviation emphasizing the strategies within the sustainable development.
- Funding the implementation and the generalization of pro-poor tourist strategies.
- Increasing funding towards sustainable tourism projects. At this point, it is necessary to remind the recommendation of destining 0.7% of the global GDP in cooperation and development aid.
- Ensuring that funding is well structured and satisfies all the needs within the tourism projects.
- Working jointly with the rest of stakeholders to obtain the optimal results in the common objectives of tourist sustainability.
- Improving tourism projects performance attended by these organisms through a better accessibility to the markets.

### **Community-Based Tourism: Strategic Recommendations**

Developing and disseminating knowledge concerning the links between demographic trends and factors and sustainable development

Basis for actions

- Demographic trends and factors and sustainable development have a synergistic relationship.

- The growth of world population and production combined with unsustainable consumption patterns places increasingly severe stress on the life-supporting capacities of our planet. These interactive processes affect the use of land, water, air, energy and other resources. Rapidly growing cities, unless well-managed, face major environmental problems. The increase in both the number and size of cities calls for greater attention to issues of local government and municipal management. The human dimensions are key elements to consider in this intricate set of relationships and they should be adequately taken into consideration in comprehensive policies for sustainable development. Such policies should address the linkages of demographic trends and factors, resource use, appropriate technology dissemination, and development. Population policy should also recognize the role played by human beings in environmental and development concerns. There is a need to increase awareness of this issue among decision makers at all levels and to provide both better information on which to base national and international policies and a framework against which to interpret this information.

#### **Objectives**

The following objectives should be achieved as soon as practicable:

- (a) To incorporate demographic trends and factors in the global analysis of environment and development issues;
- (b) To develop a better understanding of the relationships among demographic dynamics, technology, cultural behaviour, natural resources and life support systems;
- (c) To assess human vulnerability in ecologically sensitive areas and centres of population to determine the priorities for action at all levels, taking full account of community defined needs.

#### **Means of Implementation**

- A) Financing and cost evaluation and implementing of the activities.
- B) Strengthening research programmes that integrate population, environment and development
- C) Developing information and public awareness
- D) Developing and/or enhancing institutional capacity and collaboration
- E) Promoting human resource development
- F) Developing local strategies for improving the quality of life and the environment.
- G) Strengthening urban data systems
- H) Encourage partnerships among the public, private and community sectors in managing land resources for human settlements development;
- I) Strengthen community-based land-resource protection practices in existing urban and rural settlements;
- J) Establish appropriate forms of land tenure that provide security of tenure for all land-users, especially indigenous people, women, local communities, the low-income urban dwellers and the rural poor;
- K) Accelerate efforts to promote access to land by the urban and rural poor, including credit schemes for the purchase of land and for building/acquiring or improving safe and healthy shelter and infrastructure services.

## **Conclusion**

The tourism industry in the transitional economy of South Africa faces specific problems resulting from the rapid change in its social and economic systems. The rapid switch to a free market economy holds the danger of mis-development. Radical opposition to any type of government control over the economy may generate a free market euphoria, which may in turn lead to development jeopardising social security, resources and public welfare. On the other hand, the unbridled development of tourism can cause severe problems in the regions concerned, caused by uncontrolled growth of private transport, loss of bio-diversity, decline in agriculture or the exodus from rural regions.

These trends must be counteracted in good time by adopting strategies aimed at safeguarding sustainable development throughout and beyond the tourism sector. Time is a ripe to fix the framework conditions for such forms of sustainable tourism which:

- a) Helps to preserve the unique natural and man-made landscapes in these countries;
- b) Raises the quality of life of their population, and
- c) Improves the mutual understanding between peoples throughout the world.

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# **Site Attractiveness and Sustainable Tourism: The Case of Perhentian Islands, Malaysia**

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## **Abstract**

The driving force of the tourism industry is represented by the attractions offered by the destination and that travelers have no reason to visit destinations that have nothing to offer. This paper examines the site attractiveness of Perhentian Islands in Malaysia by exploring the attractiveness attributes perceived by those who are attracted by them. As competition among tourism destinations increases and tourist funding decreases, it is of vital importance to evaluate the inventory of existing attractions and the perceptions that travelers have of those attractions [1] so that viable strategies can be undertaken to preserve their attractiveness. Whilst it is often asserted that tourism is an industry that provides an important source of income for many groups, nonetheless it can also pose a potentially serious environmental problem for others. This paper also investigates the impact of tourism development on the quality of life of the people on and the environment of both the islands.

## **Introduction**

The tourism industry is often asserted to be the largest industry in the world [2,5]. It employs approximately one in nine workers worldwide, comprising 6% of global gross national product (GNP) and, in many nations, (particularly in lesser developed countries) has been seen as a panacea for solving many social problems and for driving economic growth [3].

Malaysia, in 2003 had managed to reap almost RM22.1 billion (USD5.82 billion), [RM26.9 billion (USD7.08 billion) in 2002], in revenue from the tourism industry [4]. Although from one aspect this industry is said to contribute to the generation of income and the development of economy of a country, nevertheless from another it poses a potentially serious problem for others. The potential environmental and social impacts of tourism are significant, and although in the past tourism was almost always considered to be beneficial for both host and home countries, more recently the negative aspects have been recognized and more closely analyzed [5]. On one hand, local community involvement in the form of small-scale entrepreneurship may contribute significantly to the social and economic benefits for the sustainability of tourism. On the other, there is a likelihood of a number of socio-cultural and environmental impacts including small conflicts between operators and other evidence of evolution with positive and negative elements [6] that need to be examined for sustaining development.

The impacts of tourism are well known to the people in this industry so much so the notion of "sustainable tourism" appeared not long following sustainable development that was raised in the 1980s. Sustainable tourism suggests that proposed tourism developments should have economic advantages, create social benefits for the local community and not harm the natural environment [3].

## **Study Objectives**

This paper has two objectives. The first is to examine the site attractiveness of Perhentian Islands in Malaysia by exploring the attractiveness attributes perceived by those who are attracted by them. Factor analysis will be utilized in ascertaining the destination attributes influencing travel. The general purpose of factor analysis is to summarize the information contained in a large number of items into a smaller number of factors.

The second objective is to investigate the impact of tourism development on that island. This objective is to unravel elements (that exist from the perceptions of the local community) arising out of the development of the industry that are impacting its socio-cultural, socio-economy and environment make-up. To achieve this objective, analysis of a focus group interview with some individuals representing the local community will be conducted. Although a small discussion group will rarely be a representative sample, nonetheless this technique allows people to discuss their true feelings, anxieties and frustrations and to express the depth of their convictions in their own words [7].

## **Literature Review**

Tourism research has demonstrated that attraction studies are necessary in the understanding of the elements that encourage people to travel [1] and tourism phenomenon consists of two essential components: an origin and a destination. The first is labeled as the tourism demand (guests/tourists) and the second is described as tourism supply (hosts). The procedural analysis of site attractiveness generally begins with identifying a specific area. They are normally defined under administrative territories such as countries, states, regions or provinces. Usually, the bigger the area the more important its identification, selection and categorization becomes [8].

Tourists' attraction to a destination depends significantly on what that destination has to offer. Middleton and Hawkins (1998) [9] have reported that tourists want quality environment where preserved nature and heritage become the focus of their visit. Their research is supported by that of Swarbrooke and Horner (1999) [10] who saw an increase in the number of tourists referred to as "green or eco-tourists", who are inclined toward preserving the nature. Nevertheless, research by Buhalis (1999) [11] reported that pollution will occur when the exploitation of natural resources can no longer be curbed and as long as economic gains surpasses everything else.

Hu and Ritchie (1993) [12] found in their research that touristic attributes are of relative importance in contributing to the attractiveness of a travel destination since they will implicate marketing and development initiatives.

Subsequently Baloglu and Uysal (1996) [13] noted that if the interaction between the dimensions of "push" (the desire to travel) and "pull" (actual destination) motivations are known, then marketers and destination promoters in tourism should keep in mind when designing promotion campaigns, that the most successful products are those which respond best to a bundle of needs within a given market segment and should give more marketing efforts to matching a destination's major attributes to the tourists' diverse psychological needs.

Whilst tourism has been credited with providing a number of benefits to destination communities such as the generation of revenue and employment, regional development, and overall economic prosperity, there have also been growing concerns about its negative social, economic and environmental impacts [6]. Previous literature has reported with explicit examples of how tourism has contributed significantly to degradation of culture, compounding social problems like prostitution, nudity, crime [14], drug abuse, demonstration effect, and displacement of economic and industrial activities [15, 16]. Furthermore, local community involvement in the form of small scale entrepreneurship, although may contribute significantly to socio-economic benefits, its impacts however may give rise to conflicts between local small operators and those from outside the region [6] and create social distress.

Hence research energy should be channeled into practical ways of assisting all forms of tourism to move the industry towards sustainable development. This must include social and cultural impacts of tourism development [17].

## **Perhentian Islands**

The motivation to travel is normally influenced by the attractiveness a site has to offer. Perhentian Island is situated offshore about 21 km or 1.5 hours by boat from Kuala Besut at 108 km north of Kuala Terengganu, Malaysia. It comprises of Pulau Perhentian Besar and Pulau Perhentian Kecil. The two Perhentian Islands are rated as one of the most beautiful islands in the world [4]. Covered by exotic tropical greenery, sandy beaches and coral filled seas, it is undoubtedly a sanctuary to holiday seekers.

Perhentian Besar is the bigger island and there are resorts spread over two beautiful beaches, namely Teluk Pauh situated in the north part of the island and Teluk Dalam located on the island's south east coast. As for Perhentian Kecil, the most popular beach is Pasir Panjang or Long Beach as it is popularly known amongst tourists. Both islands are perfect for nature lovers and water sports enthusiasts and the best time to visit the islands would be between the months of May to October.

## **Methodology**

### **Data Source**

The study used data from a research study sponsored by Tourism Malaysia and prepared by the Planning and Research Division, Malaysia Tourism Promotion Board <sup>1</sup>. For the first part of the study, a total of 108 personal interviews averaging 15 - 20 minutes in length were conducted on both islands. Respondents were 15 years of age or older who are on a vacation trip at Perhentian Islands, selected systematically at random.

For the focus group interview, 6 individuals were interviewed in Perhentian Besar (the bigger island) and 7 individuals were interviewed in Perhentian Kecil. The individuals were amongst those who were resort managers, a teacher, a school principal, boat operators, a village head and a fisherman. The interviews were conducted in two separate occasions averaging 90 minutes per session. The participants were a mix of female and male.

### **Questionnaire**

The 19 items developed to determine destination attributes influencing travel intention (independent variables), and travel intention (dependent variable) were rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents were asked to rate whether they agree or disagree with the given statements when assessing the attractiveness of Perhentian Island as a tourist destination. This study examines the attributes adapted from Gearing et al., (1974) [18] involving the Islands' natural factors (general topography and environment), recreational and shopping facilities (water activities and gift shops) and infrastructure, food and shelter (highways and roads, safety services, hotels and vacation villages) that constitute the independent variables. The 6 items for measuring travel intention includes statements pertaining to the length of stay, extended stay, recommendation of the destination to others and intention to return.

### **Data Analysis: Site Attractiveness**

To determine factors influencing travel intention, the Statistical Package for Social Sciences (SPSS) was used in the analyses. First, Kaiser-Meyer-Olkin's test was run to measure sampling adequacy prior to conducting factor analysis. Factor analysis was utilized to group the 19 items into the above-mentioned attributes. Since there is a suspicion that these items are interrelated in a complex fashion, factor analysis was used to untangle relationships into their separate patterns [19]. Only items with factor loadings > 0.5 were selected. Following this, reliability analysis was conducted to ascertain the degree that the measures are free from error and yield consistent results. Variables having reliability measures of Cronbach alpha > 0.6 will be accepted for further analysis. Next, Pearson correlation analysis was used to measure the strength of linear association between two variables. Finally multiple regression analysis was conducted to examine the relationship between the independent and the dependent variables.

## **Results**

A demographic profile of tourists vacationing at Perhentian Islands indicated that 72 respondents (66.7%) identified themselves as foreign and 36 (33.3%) as local tourists; 55.6% were female and 44.4% male. A descriptive analysis of the respondents revealed that respondents were more likely to be single (62%) and most had received university education (67.6%). They represented all age groups: 49.1% between 25-34; 21.3% between 35-44; 12% between 20-24; 11% between 15-19; 5.6% between 45-54 and 0.9% between 55-64. A majority of the respondents (38%) was vacationing with friends, 29.6% with family and relatives, 16.7% as couples and 12% on their own. Out of the 108 respondents, 76.9% indicated that this was their first time at Perhentian Islands and there were 7.4% more tourists in Perhentian Kecil (the smaller island) compared to Perhentian Besar.

Table 1 below reports Kaiser-Meyer-Olkin measure of sampling adequacy and it depicts a value of 0.722 while Bartlett's Test of Sphericity denotes an approximate chi-square of 490.346 with a significance of  $\alpha=0.000$ . These indicate that there is sufficient number of significant inter-correlations amongst the items for factor analysis.

TABLE 1: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.722
Bartlett's Test of Sphericity	Approx. Chi-Square	490.346
	Df	171
	Sig.	.000

### Factor Analysis

Factor analysis conducted on the 19 item-statements measuring destination attributes noted the items grouping into 2 major factors. Table 2 below illustrates the extraction of the 2 factors. Only factor loadings > 0.50 were selected.

TABLE 2: ROTATED COMPONENT MATRIX<sup>A</sup>

	Factors					
	1	2	3	4	5	6
NATURE	.769					
QUALITY OF BEACHES	.622					
RARE ECOSYSTEMS	.642					
SCENIC ENVIRONMENT	.752					
EXOTIC WILDLIFE	.591					
A LOT OF ACTIVITIES					.602	
ANGLING						.871
WATER ACTIVITIES	.637					
WATCHING THE TURTLES	.500					
CAMPING					.719	
JUNGLE TREKKING				.715		
NIGHT ENTERTAINMENT			.464			
PHYSICAL FACILITIES		.624				
SPREAD OF ACCOMODATION		.784				
TRANSPORTATION		.555				
LOCAL CUISINE		.656				
QUALITY OF PUBLIC AMENITIES		.783				
WASTE MANAGEMENT SYSTEMS			.809			
MAINTAINANCE OF THE JETTY		.500				

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Factor 1 relates to the elements of natural attributes of the general island topography like beaches, ecosystem and wildlife. However, it is interesting to note that this factor also incorporates the particular activities relating to nature like water activities and turtle watching, those which Gearing et al., (1974) identified as recreational facilities. Hence for this study this factor was named nature and nature’s recreational activities (NnRa).

Factor 2 is highly loaded with statements pertaining to physical facilities, transportation, food and accommodation, those that Gearing et al., (1974) identified as infrastructure, food and shelter. This factor was named infrastructure and facilities (InF).

Factor analysis was also run on the 6 items measuring travel intention and all items were loaded on a single factor, and show factor loadings > 0.5. Other factors were dropped, as they were single item factor that were typically unstable and would raise the question of reliability.

**Reliability Analysis**

After the factors were captured through factor analysis, reliability analysis was conducted on all the 3 major factors of nature and nature’s recreational activities, infrastructure and facilities (independent) and travel intention (dependent) in order to ascertain their consistency in responses. Table 3 below depicts the reliability analysis of these factors.

TABLE 3: RELIABILITY ANALYSIS

Variable	No of items	No of items deleted	Cronbach’s Alpha
Nature and nature’s recreational activities (NnRa)	12	6	0.780
Infrastructure and facilities (InF)	7	2	0.751
Travel Intention (TI)	6	-	0.833

All three factors indicate Cronbach’s alpha greater than 0.6 (which is normally the cut off mark for exploratory studies [19] ) and hence can be further analyzed.

**Correlations**

Table 4 illustrates the bivariate correlation between the 3 variables. The variable nature and nature’s recreational activities (NnRa) is positively correlated with travel intention and significant at the 0.01 level whilst infrastructure and facilities (InF) is also positively associated with travel intention (TI). Nature and nature’s recreational activities factor is also positively associated with infrastructure and facilities although weakly.

TABLE 4: PEARSON CORRELATIONS

	Mean	Std D	Nature R_activities	Infra-Facilities	Travel Intention
Nature_R activities	3.995	0.654	1	.251(**)	.575(**)
Infra-Facilities	3.629	0.755	.251(**)	1	.590(**)
Travel Intention	3.716	0.738	.575(**)	.590(**)	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Regression Analysis**

In order to determine the relationship between the 2 independent and dependent variables, simultaneous regression using enter method was employed. Table 5 below depicts the regression analysis for the study. This analysis is to determine the best prediction of a dependent variable from several independent variables [20] once the independent variables are found to be correlated with one another and also with the dependent variable (Table 5).

TABLE 5: REGRESSION ANALYSIS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin Watson
1	.575(a)	.330	.324	.60692	.330	52.252	1	106	.000	
2	.736(b)	.542	.533	.50415	.212	48.619	1	105	.000	
3	.743(c)	.552	.539	.50088	.010	2.375	1	104	.126	2.27

a Predictors: (Constant), Nature\_R activities

b Predictors: (Constant), Nature\_R activities, Infra-Facilities

c. Predictors: (Constant), Nature\_R activities, Infra-Facilities, INXNIF

TABLE 5(A): COEFFICIENTSA

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	1.126	.363		3.102	.002
	Nature R activities	.648	.090	.575	7.229	.000
2	(Constant)	-.022	.344		-.064	.949
	Nature R activities	.514	.077	.455	6.673	.000
	Infra-Facilities	.465	.067	.476	6.973	.000

a. Dependent Variable: Travel Intention

TABLE 5(B): COEFFICIENTSA

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.022	.344		-.064	.949
	NATURE_A	.514	.077	.455	6.673	.000
	FACILITI	.465	.067	.476	6.973	.000
2	(Constant)	-1.490	1.012		-1.472	.144
	NATURE_A	.897	.260	.795	3.446	.001
	FACILITI	.926	.306	.948	3.021	.003
	INXNIF	-.119	.077	-.655	-1.541	.126

a Dependent Variable: Travel Intention

From table 5 above it could be seen that nature and nature’s recreational activities on its own contribute 33.3% of the variance in travel intention and it is a significant predictor. Also, from the R Square Change statistics and the significant F Change Value, it is noted that infrastructure and facilities makes a significant contribution of 21.2% to the variance of travel intention after nature and nature’s recreational activities. When both independent variables are entered into the regression, both become significant predictors. In other words, nature and nature’s recreational activities on its own, is a salient predictor of travel intention and its effect is also significant in combination with infrastructure and facilities. However the impact of infrastructure and facilities ( $\beta = .476$ ) is greater than nature and nature’s recreational activities ( $\beta = .455$ ) on travel intention (Table 5a). Furthermore, the impact of nature and nature’s recreational activities and that of infrastructure and facilities on travel intention are

independent of one another (Table 5b). Hence tourists' travel intention is primarily more dependent on the availability of basic infrastructure and facilities and its attractiveness is further enhanced by its nature and nature's recreational activities.

**Data Analysis: Focus Group Interviews**

Based upon the normal qualitative process of data analysis, a few important themes could be highlighted with respect to the positive or negative impacts of tourism development on the islands of Perhentian. Fig. 1 illustrates these impacts and the subheadings that follow dictate the comments given by respondents on the various issues.

**Attitudes**

Tourists present themselves in many colors of behaviors and it is up to the local community to interpret these colors as acceptable to and fitting their norms or otherwise. As quoted by Respondent A from the focus group interview, "It depends on us on which examples we could emulate from these tourists. Skimpy dressings which is their normal dress code but against our culture and religion, need not be followed. But behaviors like keeping the surroundings clean (some foreign tourists even go to the extent of keeping banana skins in their pockets until they found a dustbin to dispose it, a good example to follow), killing time reading, we could learn something from that".

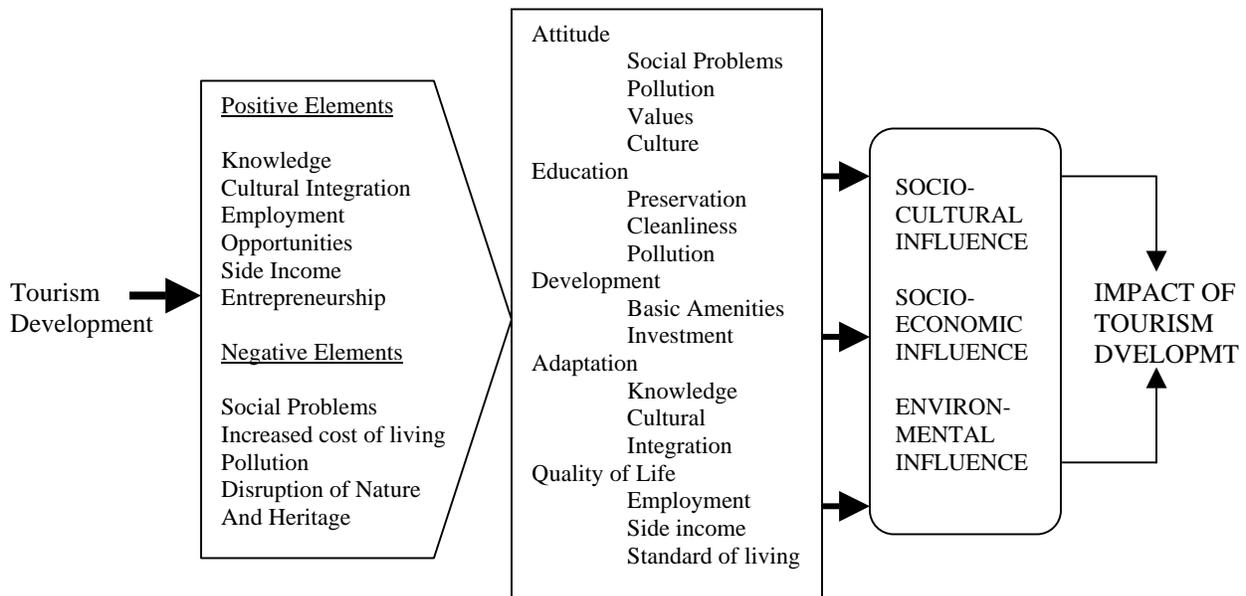


FIG. 1

**Adaptation**

The ability to adapt to the development of the tourism industry constitutes an important factor. For example, the opportunity to opening up new businesses, learning new cultures and integrating knowledge from foreign tourists flooding the islands calls for the local community to go for a paradigm shift in this industry. From what had been gathered from Respondent B, "Local youths have become more enterprising when they see viable business opportunities that can be tapped. They tend to learn and adapt to the wants and needs of these tourists when offering their services". However, Respondent C seemed to think otherwise. According to her, "We see many chalets being erected to support this industry but we also see tons of wastes being generated as a result of this development".

**Education**

There are certain things that people can learn from each other, and the local community of Perhentian islands is no exception. In order for them to be able to assess if the invasion of foreign values have left a devastating impact especially on the second generation of the islands' population, education and the process of educating play important roles. As reportedly quoted by Respondent D "I suppose we have to start educating our children at a very young age regarding cleanliness and the preservation of our natural environment" and supported by Respondent E "In fact I

was scolded by a tourist to stop open burning, it shows how high their level of awareness regarding the preservation of the environment is”.

#### **Quality of Life**

With the correct exposure and the zest to tap opportunities, a better quality of life is indeed possible. For locals, the arrival of tourists had opened up a myriad of business opportunities. Many were enterprising enough and had become chalet owners, boat operators, stall operators and many more have seek employment from resorts. As mentioned by Respondent F, “With the establishment of resorts and chalets, people that we know are being employed”. In addition, “The Fishery Department is issuing licenses to local fishermen to transport tourists and this is good income to them” added Respondent G. “On the other hand, quipped Respondent H, the time supposedly spent with the family is taken away because of the long working hours”.

#### **Development**

The people of Perhentian islands hope that in the midst of supporting the tourism industry, a balance development is attained. Although the construction of resorts and chalets are being welcome, nevertheless, basic development for the local community of Perhentian islands is long overdue. For example, as mentioned by Respondent I, “ We worry sometimes about the medical facilities available on the island. If something were to happen and requires immediate attention regardless whether you are a tourist or a local, I think it’s going to be a problem.”

People of Perhentian also voiced their grievances especially with regards to basic amenities. Said Respondent J, “Every time the tourists come we have interrupted water supply and this goes on until they are gone”. Added Respondent K, “We hope there will not be big ferries. We don’t want Perhentian to be another Langkawi island where the development phase is very rapid and it becomes over commercialized”.

## **Discussion and Implications**

The motivation to travel is indeed influenced by the attractiveness a site has to offer. Although motivation is only one variable explaining tourist behavior, it is regarded as one of the most important variables because it is an impelling and compelling force behind all behavior [13]. Furthermore, to effectively market a particular destination, it is necessary to understand factors influencing destination attractiveness and the strength of interaction between these factors in influencing its attractiveness. An understanding of its interaction in influencing site attractiveness may then provide a basis for segmenting those travelers and providing an innovative way of reaching out to them.

Interestingly, factor analysis revealed that items relating to the general island topography together with the items relating to the type of tourist activities are bundled together into a single factor. We suspect that this is a result of an immediate and simultaneous outcome of the attractiveness of the destination. In other words, it is obvious that the activities tagged to the site attractiveness must naturally be site specific, but it is even more profound when satisfaction of these attractions can only be derived if both are enjoyed simultaneously. Perhentian islands offer a myriad of factors and activities capable of alluring tourists. Their beaches are still highly rated, its natural surroundings are still preserved and some of its corals and ecosystem are still in its virgin state. Vacationing at Perhentian without dipping into its waters and being immersed in its water activities is definitely a sin. Like the nails on our fingers, these activities are inseparable. Hence when promoting Perhentian as a destination spot, in addition to advertising the beauty of the islands, and in order to attain a meaningful vacation, tourists must directly be involved with activities that the islands have naturally provided.

Evidently this survey portrays that tourists seek various attributes of a destination to satisfy their travel pleasures. They seek to satisfy not one single need but a multiple of distinct needs simultaneously [13]. The findings of this survey had significantly shown that 2 major factors; (1) nature and particular recreational activities ubiquitous to any general island topography and (2) infrastructure and facilities, are salient attributes in pulling crowds into Perhentian islands. Although their natural environment in itself is instrumental for site attractiveness, nevertheless primary emphasis must be given to the provision and maintenance of its infrastructure and facilities (quality public amenities, better jetty and physical facilities, efficient transportation system and a wider spread of local cuisine). These combined attributes will make Perhentian islands appealing to tourists and vacationing for tourists more memorable and worthy of their stay. Thus, this is one of the reasons why some islands that have the

potentials of a tourist destination are not because of the absence of basic amenities, infrastructure and facilities. The findings revealed seemed to support Baloglu and Uysal's push and pull motivations. As such local authorities and relevant bodies must cooperate and collaborate with the local community to ensure that the islands' heritage is preserved. One of the ways is to ensure that basic amenities and facilities are well constructed, and the system of sewer and waste management is properly in place before making way to tourism.

Unfortunately however, the current focus of tourism destination development does not address many of the broader social, cultural and community aspects of sustainability [5]. Destinations like Perhentian islands may receive only a small return for the exploitation of an increasingly scarce resource – its natural environment. But such destinations not only bear costs in terms of environmental degradation when paving ways for tourism development, in fact due to their low level of development, these islands can rarely afford restorative measures. In Penang (another island in Malaysia) for instance, the grouse of the local community is that the State government will only develop infrastructure if it affects tourist industry while neglecting their needs. Often locals complained that during holidays, the traffic gets so congested that locals are quite against the expansion of the tourist industry. Hence local government must educate the locals to be more aware of the economic benefits of tourism and must develop projects to benefit the locals first.

Subsequent findings from the focus group interviews have revealed that although tourism brings social benefits by widening peoples' interest in world affairs and a new understanding of foreigners and foreign tastes, it also creates social problems, and this is in tandem with the findings reported by Khan et al., (1990). As such, in addition to the costs borne due to environmental degradation, these islands also bear social costs of nudity, drug trafficking, explicit sex, and crime, thus risk values and cultural erosion of their local community when doors are opened to the world without adequate preparation and education. Whose responsibility is it to monitor such menaces and address the predicaments of the local community? Who will pay for the future of our children and their children after theirs that have been contributed by tourism to the bastardization of their culture?

We agree with Welford, Ytterhus and Eligh, who noted that issues of sustainable development focus primarily on the supply side and neglect the influence of the demand side. Tour operators have had considerable influence on the way tourism has developed over the past 30 years in many destinations. They contribute directly and indirectly towards the negative environmental and socio-cultural impacts due to their short-term objectives towards destinations and the overriding concern for financial success. Hence to achieve incremental and sustainable benefits for hosts and guests, a greater level of participation is required by both the supply and the demand side. While the supply side needs to take responsibility for the planning, organization and implementation of a coherent and sustainable tourism policy, the demand side may need to focus more on the issues of education and respect for each destination and its idiosyncracies.

## Conclusion

The findings of this study suggest that there is a significant relationship between destination attributes and the intention to travel. It also suggests that we need to strike a balance between the benefits (social, cultural, and financial) and the cost of tourism development (host and guests). Poor policies and lack of sound tourism development strategies may invite a holocaust from over development and oversupply. This implies that the trajectory the tourism industry should take must be in tandem with sustainable development.

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### End Notes

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# **Transforming Organization For Sustainable Development: The CLE Way**

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## **Abstract**

In the era of Hi-Tech fastest ever changes, creation of Global Competitive Advantages, Sustainable development, competition at war footing, fastest ever knowledge transformation and many uncertainties managing business has become the game for those JUGGLERS who can effectively and efficiently handle the multifaceted Balls moving without a single fall. This jugglery requires every corporate manager to be like a master-craftsman who creates only masterpieces every time and achieve the best always. In the changing scenario and context, every resource is governed and managed by supreme resource i.e., the human resource. The human resource are gifted with tremendous competencies, capabilities and unlimited creativity along with potential. The organisations, which have identified such power and have realized the vitality of their human resource are nurturing the human factor as a center of all activities and are reaping the fruits of success in every parameter at every dimension and at each level in the knowledge driven economy. Be it a private or public sector, a manufacturing or service industry, a domestic or multi-national corporate, every industry today is now enlightened to accept the strategic importance of human power which has the Herculean power to visualize, accept, apply, speed-up and mould the change drives within an organization. The human power can be seen as vision-builders, change masters, alliance managers, relationship-builders, reformers or organizational architects, who can lead the organisation from the front desk and can make it forge ahead even in the turbulent environment. Keeping such scenario in consideration, a case study on “Continuous Learning Environment (CLE) is being presented by authors which brought HRD excellence Award at National level which is a movement, a way of life, a breakthrough in sustainable development effort.

## **Introduction**

Hindustan Zinc Limited (HZL), an internationally known market leader in Zinc and Lead metal production in India, became a member of Sterlite Group, another Group with strong presence in Non-Ferrous Metal Industry in the Country, in April 2002, pursuant to the disinvestment process of Government of India. The Company has its own Mines and Smelters, located in seven different places and currently employs over 6000 employees.

HZL continues to be a profitable company since inception; since privatization in 2002, it has further improved its production and profitability in the last year. Already, the company has initiated steps to double its Zinc and Lead production in next two years, with associated expansion of its Smelting and Mining capacities.

## **Backdrop**

The key concern post disinvestment was to manage change and anxieties in the minds of people on the one hand and to also challenge their abilities to achieve much more than whatever the people and processes have achieved so far. One of the key components of this was imparting “new knowledge” that is available at global level; another aspect was to make people own and accept this and operationalise the knowledge acquired thus.

In case of executives, we took up strong and effective steps to put in place executive education programs and cover more than 1100 participants through these programs. Apart from this, we also identified various critical projects within the Units, which were to de-bottleneck the operations and increase production, productivity, all of which were taken up by the executives. Last year, more than 108 projects, involving over 400 executives worked together and made significant difference.

In case of workmen, the above approach was found to be slightly difficult. We had the issue of multi-locations and also the apprehensions in minds of workmen post privatisation. It was felt that a prescriptive approach to learning would have had much less acceptance at the learner level and thus would have failed. Also, the sheer number of people to be covered was enormous. Another aspect was that most of the workmen have been doing their roles over many years and if we started off from the company to identify gaps and offer training, this could also create a negative feeling, as the unions and workers could perceive this effort as an exercise to isolate people with lesser competence and deal with them differently.

All this, created a challenge for us. The need was to create a method of identifying training needs without being prescriptive and also to create a method of learning delivery that encouraged people to come out in the open and embrace new learning without barriers.

Clearly, this then meant that we needed a model, which focused on “adequacy” of employees to know what they know and also what they do not know and an acceptance that people are OK in their roles and if any improvement we wanted to offer, it was just to make their work on the roles, simpler, enjoyable and effective. We decided consciously to avoid focus on productivity improvement as a goal. We also felt this should be a collective process with ownership at the shop floor level. Another conscious decision we took was to avoid talking of change in “attitude” which would have then made people think “public sector” versus “private sector”. Hence our focus became only “knowledge and skill”. In nutshell, we decided to depart from a standard process and experiment with an open-ended model, which had both the learners and the teachers together in it.

## **The Concept Stage**

We started to work on the above approach and could not come across a similar experience elsewhere in any other industry, to the best of our efforts. Then, we decided to start this as a pilot in one of our Units. We chose our Vizag Smelter as the unit to start this process

Vizag smelter produces around 45,000 Tonnes of Zinc in a year and currently employs about 800 people (734 workmen & 79 executives). When we started the new learning process, the Unit employed close to 1000 people. We identified a few major steps in initiating the process as below:

- Getting the opinion and buy-in of most of the workers, peers, union office-bearers, first line executives and the managers
  - This was necessary to allay any apprehensions or misinterpretations later on and also to get their views on the approach
- Based on the opinion / inputs of the above process, design the methodology for obtaining the training needs data from people
  - Respective groups of workers in a function / department to collectively reflect and indicate areas of competence that make a difference in the jobs being done in that department
- Consolidate the data and group them in relevant manner and discuss with front line supervisors and managers
- Work with the groups of workers to identify the resource person, who, in their perception were the best suited to deliver the knowledge / skill
- Getting these resource persons together along with the first line supervisors and managers to finalize the plans for “Learning Delivery”
- As most of the resource persons would be shop floor workers, who may not have the expertise to teach, we decided to put in a module where these resource persons would be trained on “teaching methods”
- Then the next step was to document the task that each of resource persons would carry out and to ensure that there is a mechanism which took a sustainable care of the learning process
- Then the actual commencement of learning – teaching at shop-floor

Even though we charted the above process, we were apprehensive about this process-taking root in a significant way.

## **The Initial Steps**

As this involved massive and new effort, we put one of our HR Managers with training background to be full-time co-ordinator, facilitator and implementer of this process. He was stationed at Vizag and was responsible to evolve a workable process.

## **Buy-in Phase**

The co-ordinator first met the senior management team of the Unit and explained the approach. Most people felt not so enthusiastic about the success of this; however, they agreed to support.

The second effort was to meet the union representatives – here, the apprehensions like use of information to separate people with lower competencies, use of data in future VRS, what will company give if productivity increased and so on had to be answered. This almost resulted in making this initiative as an initiative not driven by Personnel Department. We promised that information given is purely for planning the learning and not for any other use. We also agreed that any worker who felt like not participating, we have no issues and there would be no stigma on such persons.

The third step was to move to shop-floor workers and first line managers and talking about this approach. Here, after initial phase of doubt, we got the real breakthrough. Suddenly we could see lot of enthusiasm and an expectation that we genuinely would like to work with people.

With this feedback, another round of meetings and discussions were held with the Managers, Senior Management team, and Trade Unions. This time round, we got the support of these people also in full. This then encouraged us to move ahead. We decided to start with only the shop-floor workers and leave out office people in this process.

## **Data Generation Phase**

We got workers from each identifiable work area / function in groups and along with their first line supervisors and brainstormed on how to go about mapping the areas for learning. This lead each group to identify in broad terms, the tasks / activities about which people working in that group need to have knowledge / skill. This became the base fabric for next step. Nine such broad functional areas evolved.

Based on these inputs, we designed a format listing the areas of “competence” as identified by the Group and also left many open rows for individuals to come-out with any other area that they may like to add. These formats were distributed to 685 workers, asking them to indicate the areas of learning that they would like to have, to make their job simpler, enjoyable and effective.

After initial hesitation, this exercise of filling the forms became an overwhelming and exciting process for all workers. There was cross-consultation and participation of peers and across departments etc. At this stage, lot of enthusiasm and significant level of participation occurred. A general sense of good feeling evolved and even the Managers expressed a feeling that this is something unique. This then further strengthened the process and support from managers and unions.

From out of 685 workers, 671 workers submitted their forms. 14 workers did not submit. This was clearly a question people were watching as to what we would do with those 14 who had not given the forms. We advised our managers and front line supervisors, not to even ask them why they did not fill the forms. In fact we made it clear that it is ok for some people not to seek any learning and we have no issues with it. When we established this clearly, acceptance of our process as non-threatening and non-prescriptive increased. Another off shoot of this process was, even among the workers, some of them took the lead to complete this process and emerged natural leaders, some of whom later became teachers also.

### **Data Consolidation & Finalization of “Teaching” Process**

All the information so received through formats were consolidated in a Computerized form and analysed for grouping according to the broad areas / disciplines. This was massive in the sense that we were dealing with 107 training areas covering 671 people. Even in this process, we had interesting experience. Seeing the enthusiasm generated among the shop-floor people, many of the young first line managers voluntarily joined this phase and some of them worked day and night to complete the analysis and grouping work.

This consolidated list was sent to respective first-line supervisors who, along with those workers who took lead in the data collection process. They together segregated the major sub-areas of the list and identified the concerned workers in each sub-group and then organized meetings and shared the outcome. In this process, the concerned group came out with (1) Training / teaching methodology, (2) Duration of such training & (3) Name of resource person for each specific area, from among his own colleagues. This was captured in a format. Here, we again departed in letting the Learner choose his Teacher, instead of the traditional mode of we choosing the Teacher. Also, with the Teacher being a co-worker, all apprehensions or hesitations that might have stopped the worker from seeking or sharing his concerns got addressed effectively, even in design stage.

This information was again re-processed and re-grouped and final document prepared indicating the individual wise – areas of learning, period of learning and persons responsible for teaching. Also, as a result of the above process, 93 resource persons were identified. As these resource persons did not have any teaching experience etc., the groups identified 56 trainers, who were to train these 93 Resource Persons. The Resource Persons were named “Champions” and were then trained by the Trainers and also by the Project Co-ordinator in teaching methodology etc. This was to create confidence among the resource persons.

### **The Implementation Phase**

With trained Champions covering all areas of training needs identified with the involvement of almost all the workers, the next step was to implement this process. By this time, the process got christened “Continuous Learning Environment” (CLE). Fig. 1 is a summary of the step-by-step journey to CLE process. In a meeting with the Champions before commencement of actual teaching etc., a point came up about knowing the benefits of the teaching / learning efforts. The Champions suggested that they would take an “objective type written test” of their trainees before training and after training in each concerned area and establish the learning or otherwise. They also suggested that we must track improvement in performance on the job over a period of time. This resulted in generating an evaluation format to guide people towards documenting this.

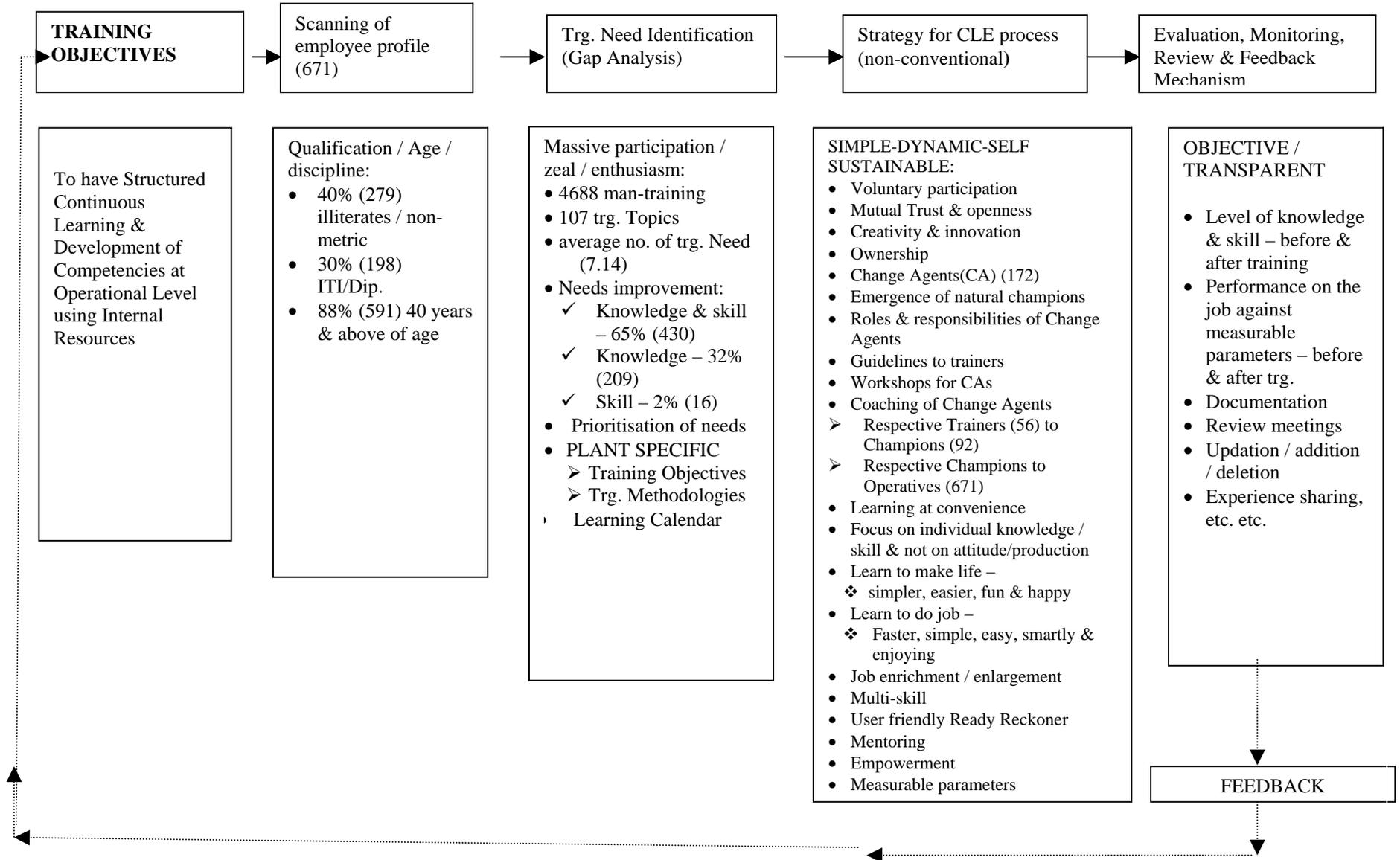
Normally, in various company programs, if any internal resource person was utilized, company gave a honorarium of about Rs.200 per lecture. This issue came up before all the Champions and the co-ordinator and it was a pleasant departure where all agreed that CLE cannot be into this mode. The Champions were clear that they would willingly and voluntarily offer their services and not for any honorarium.

Another issue was the venue and timing for teaching. It was clearly brought out by champions that, being a knowledge and skill program to facilitate people on their jobs, such a training need to be close to the workers and flexible in its timing. This then made us jointly agree to “Teach any where and any time”. One more departure was made in letting the learner and teacher choose where, when and how they would teach/learn. This also loosened up all apprehensions of the First Line Managers monitoring etc.

The last step was to put in place a management support process. This we achieved by identifying Owners and Implementers, who were typically the Department Head and Functional Head. With this in place, the process started off on 15<sup>th</sup> October 2002, just after 6 weeks of our commencement of the journey.

While the process was to start simultaneously in each Function / Department, we found that some were taking greater interest and moved very fast. In some cases, there were difficulties like “we cannot spare people” or “we do not have time at present” etc. Feeble suggestions came that we should talk of some time-off etc. from some first line managers and a few workers. When we discussed this with Champions and First line managers on this, it clearly emerged that we should not offer any time-off concept but motivate the managers of those departments to

FIG. 1: STAGES OF EVOLUTION OF CLE



spare their people as and when possible to complete the learning, which will only benefit the concerned departments. The Champions also suggested that they will teach their “learners” before or after normal duty hours and even in informal contexts like in houses, rest-rooms etc. It was clear that the “Champions” felt responsible for their trainees and were confident of making their trainees get the desired knowledge in whatever manner possible. It is a sight to see champions and learners sitting and working after their shifts, in canteen, in restrooms and even at house in some cases.

As a result of this, till March 03, 404 workers have been trained through 155 programs, covering almost all areas identified by the individuals. Others are being covered now. The table at Annexure V summarises the progress made till March 03 in respect of improvement in knowledge/ skill and also performance against measurable parameters.

As shown in fig 2, the whole approach has been graphically depicted with a slogan “Development of the People, by the people and for the people” and displayed at prominent places in the Unit. It has become CLE and every worker knows what it is. We have been meeting the champions, owners and implementers regularly and have obtained their feedback as well as from the learners. The most important part of this whole process is that – this is not top driven and actually, the Champions now drive this process. In effect, we believe that we have created a sustainable learning model.

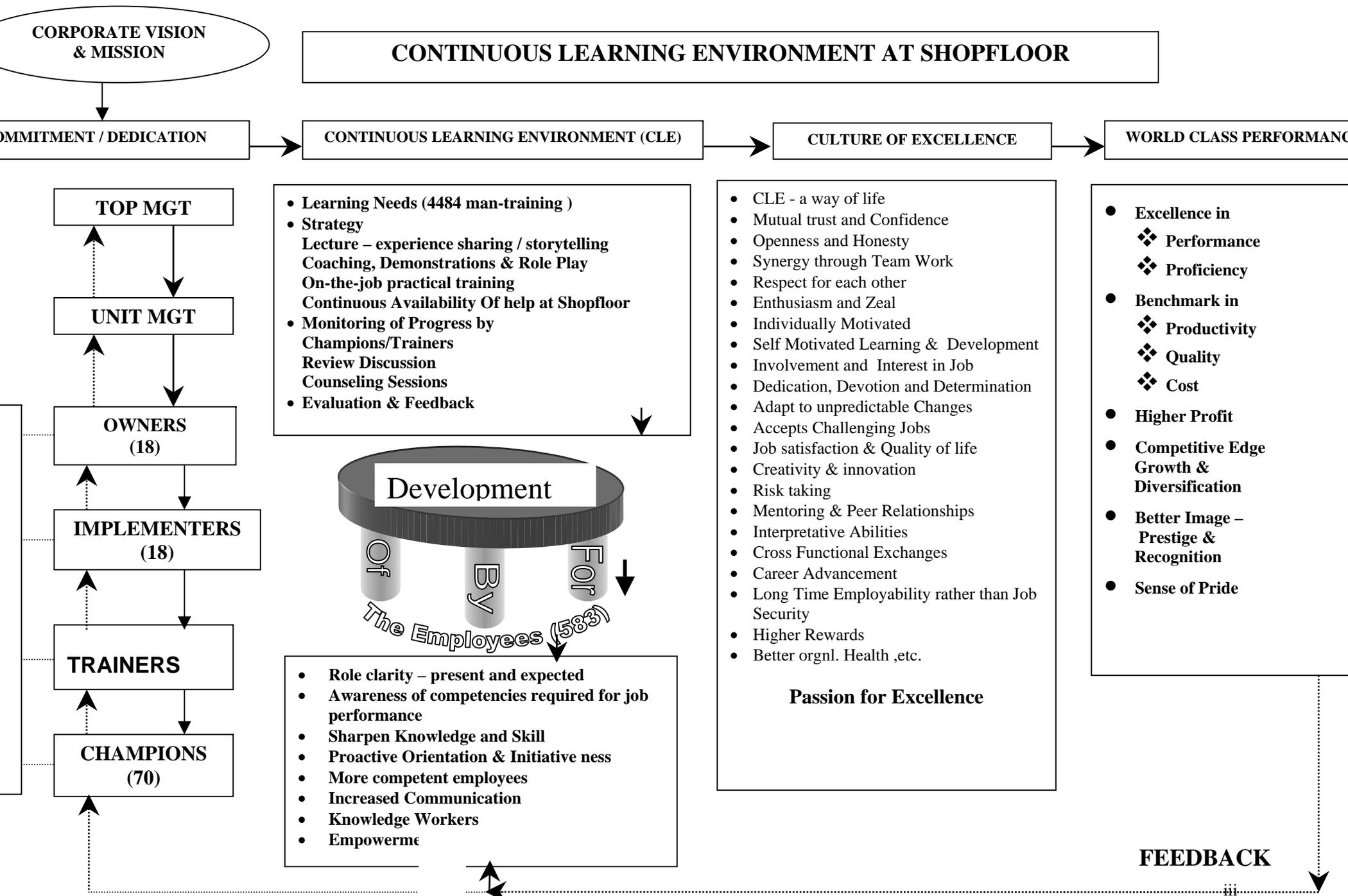
### **Benefits of CLE – A Few Indicative Tips**

Many successful experiences / benefits are being reported from different shop floors regarding implementation of creative & innovative ideas – small and big – making everyone a feeling of achievement and satisfaction. A few indicative tips are:

CLE has -

- Become a platform for effective communication among all levels/ voluntary participation to improve skills and knowledge
- Brought more people together, improved team spirit & increasing trend in competency level
- Created enthusiasm among employees to know more about their area of work and activities
- Become an effective hrd tool for change management, innovative approach, competitive spirit, positive attitude, etc..
- Created atmosphere for learning, mutual trust, role clarity, belongingness, cost consciousness & responsibility sharing
- Awareness about why, what, who, how and when of plant operation has increased
- Employees willingly taking more responsibilities, initiativeness, develop multi-skill and more faster & smarter
- Record production, productivity & profitability even with reduced manpower
- Improved recovery efficiency.
- Innovative approach for the jobs, better house keeping, reduction of downtime, learning of interdisciplinary skills, spontaneous response for attending problems of other sections, etc.
- Improved work culture & reduced absenteeism
- Cle prepares operatives to meet the changing scenario, removes road blocks in the mind set, etc. Etc.
- Cle now spreads to non-planned areas
- Words not enough, one has to feel the difference.....

.....**ONLY A BEGINNING.....STILL A. LONG WAY TO GO.....**



## What Makes CLE Process Better than Traditional Training:

Table 1 summarises the important features of the massive grass root level learning movement which make CLE process better than tradition training.

TABLE 1: WHAT MAKES CLE PROCESS BETTER THAN TRADITIONAL TRAINING

Parameter	Traditional training	CLE Process
Initiative /Ownership / Drive / Interest	Management	Grass root level operatives/ Learners
Resource person (s)	External trainers/internal front line Engineers	Competent colleagues from the shop floor volunteered themselves
Honorarium/fee to faculty /Financial implication	Yes, Sizeable amount	No – self motivated
Focus	Group size of 20-30	Individual care & collective approach
Training	Formal	Voluntary (autonomy)
Place	Class room + training aids	Work place / mutual convenience
Time	Scheduled by management	Flexible / mutual convenience
Learning	Structured – one time	Unstructured – continuous – learning with fun & self convenience
Content	Management / Trainer	Individual concerned
Methodology	More theory/behavioural – group centred	More practical – individual centred
Responsibility /ownership	Management	Learners
Interest taken	Management	Learners
Objective of training	Limited emphasis / clarity	Clarity & collaboration
Participation	Limited & sponsored	Active & voluntary
Problem solving	Limited	Synergise creativity & innovation
Decision	Centralised - rigid	Empowered & participative - flexible
Communication	Filtered / limited	Free-frank-open-transparent
Interpersonal relations	Limited	More – multiplying effect, promotes harmony
Competency level	Ignorant	Awareness of competencies – present & expected
Availability of Learner/Trainer on-the-job / after training	Nil / little	Continuous availability of help at shop floor
Application of learning on the job	Not readily known	Evident and continuous
Continuous hand holder learning	Not provided	<b>Is the way of life</b>

During the National level competition held in New Delhi on 31 July, 2003, the eminent panel of judges expressed that the CLE process emerged as a grass root level learning movement is a powerful innovative HRD concept. They strongly recommended for its introduction and institutionalisation in other organisations also.

Right now, our focus is on bringing up the knowledge of our Champions to the next level, by exposing them to new ways of working etc. in relevant areas and they becoming our change agents. The most interesting feedback we receive from many managers is that “people’s attitude on their jobs has turned positive and good”. This we feel is strengthening our belief that a competent and capable team will have positive attitude.

We now have requests from the learners to move ahead to new areas of learning; in our typical sense, these are areas of multi-skilling. We now feel if we offered these learning, our desire to make most of our workers multi-skilled will fructify faster and with minimum difficulty. By not focusing on any financial reward system linked to learning or teaching etc., this has remained a pure “education & learning” process. This has brought out Voluntarism from the people and today, many of the learners want to be Champions. In fact, even today, some Champions are also Learners. We feel that we have established a healthy manner of knowledge dissemination on a voluntary and sustainable basis in this process.

## Conclusions

The path-breaking CLE process provides a dynamic and innovative learning platform for the individuals to excel and derive pleasure and pride from being recognized in the organisation as well as in the family and society. It is a collective process with ownership at the shop floor making the roles simpler, enjoyable and effective.

It is now time for CLE to move to next level, where every individual in the organisation is able to build a competitive spirit – the spirit to excel on one's own achievements. The most powerful path to success is to exceed one's own achievements every time. We have to compete with ourselves and not with anyone else. The spirit of self-propelled focus to do better everyday on everything that one does would make the person to enjoy every moment of living. CLE is capable of delivering this great knowledge and skill to make each of us compete against our own best, every time we attempt something. In short, CLE could lead each of the members to lead their lives powerfully and in an enjoyable manner.

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# The Emergence of Korea's Aggressive Legalism in the WTO and Implications for the 'Post-Developmental State'

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## Abstract

There has been a *dramatic shift* in the foreign trade policies of Korea since the emergence of the World Trade Organisation (WTO) in 1995. What does this *dramatic shift* look like and how can one explain this new strategy led by the Korean state? Does this strategy shed new light on the changes occurring in the emerging 'post-developmental state'? These are the key questions which this paper addresses. This paper argues that Korea's new foreign trade policy is best described as 'aggressive legalism', a concept originally applied to Japan. Under the WTO, Korea's 'aggressive legalism' is requiring the state to adapt and play an evermore active role in three principle areas: defending developmental institutions, implementing WTO rulings and commitments, and litigating on behalf of national industries in the WTO Dispute Settlement Unit (DSU). While the core ingredients of the developmental state no longer resemble what they were in the high-growth era, a 'post-developmental state' which adapts to challenges in the international political economy such as the rise of the WTO, is emerging.

## Introduction

If the developmental state in Korea and Japan no longer exists or has significantly changed, what is this new 'post-developmental state' called? This is the puzzle that propels the research conducted for this paper. Since the bursting of the bubble, Japan scholars have for long focused on the perennial question of: how can the Japanese economy return to high levels of growth? Since the financial crisis of 1997-1998, scholars of Korea have also focused on a similar question: how can the Korean economy be reinvigorated to achieve the growth rates of the 1960s and 70s?

These are important questions and the answers have grave implications but an area which has received scant attention by scholars has been in the *dramatic shift* in Japan's foreign trade policies under the World Trade Organisation (WTO) best described as 'aggressive legalism'<sup>1</sup>. What has received even less attention has been the *dramatic shift* in Korea's foreign trade policies since the emergence of the WTO. Such changes deserve greater attention as it may provide insights into the new economic model emerging in post-developmental states and more generally, the continuing relevance of the state under supranational organisations such as the WTO.

Thus the aim of this paper is two-fold. Firstly, to demonstrate that the concept of 'aggressive legalism' is not peculiar to Japan but can be extended to describe the dramatic shift in Korea's foreign trade policies. This is about using the substantive legal rules embodied in the WTO as a 'shield' for controversial domestic policies and as a 'sword' to attack the perceived unfair practices of trade partners. Secondly, to show how Korea's use of the legal rules as a 'shield' and 'sword' reflects the adaptation of the state to changes in the international political economy such as the emergence of the WTO. This provides clues specifically in terms of what the emerging 'post-developmental state' may look like and more generally, the future role of the state in governing the national economy.

This paper proceeds as follows. I begin by defining the concept of 'aggressive legalism' as originally applied to Japan. Following on from this, I apply the concept of 'aggressive legalism' to describe Korea's dramatic shift in foreign trade policies by tracing out the evolution of this strategy. I then discuss in detail a selection of WTO cases involving Korea that demonstrate how the state in Korea is using WTO rules as a 'shield' to continue developmental policies and as a 'sword' in the domestic arena to implement reforms in politically controversial industries and in the international arena to legitimately challenge the perceived unfair practices of trade partners. I then make clear the significance of 'aggressive legalism' for shedding new light on the emerging 'post-

developmental state' model in Korea. The final section states the implications of these findings in the much broader globalisation debate. I will then offer a conclusion to this paper.

## **Japan and 'Aggressive Legalism'**

Works by Saadia Pekkanen have been leading in bringing to light Japan's emerging trade strategy through the use of the rules of the WTO. Japan acceded to the GATT on 7 June 1955 but had very little importance to Japan's foreign trade policies. From 1955 to 1986, Japan avoided the GATT's dispute settlement and aimed instead for bilateral resolutions before the complainants requested the establishment of a Panel and this is true for all 11 cases which involved Japan as a defendant. Only in one case was Japan forced to appear before a Panel involving import restrictions for leather, the outcome of which there was an adverse ruling. As a complainant, Japan only initiated four formal disputes until 1988 (Pekkanen 2001: 709).

It was not until 1988 that Japan won its first case in a Panel ruling as a defendant. Canada had complained against Japanese tariffs on Canadian lumber while allowing 'like wood products' enter freely from the US. The Panel found that Canada had provided insufficient evidence to show 'like products' and that the Japanese tariffs had specifically been designed to discriminate against Canadian lumber exports (Pekkanen 2001: 710).

It was this case which began a change in attitude towards the use of legal rules as a source of international power. Firstly, during the 1990s officials in the foreign trade policy establishment located in the Ministry of International Trade and Industry (MITI) and the Ministry of Foreign Affairs (MOFA) began to push for a strengthened dispute settlement process in the Uruguay Round. MITI officials in particular supported this as a way of constraining American unilateralism (Kahler 2000: 563). And secondly, from 1992 the Subcommittee on Unfair Trade Policies and Measures under the WTO Committee of the Industrial Structure Council, which is an advisory body part of MITI, began to produce a report on the WTO 'consistency' of Japan's trade partners. This purpose of this report was to evaluate foreign trade policies and measures as that embodied by the rules of the now, WTO. Thirdly, in terms of administration, greater human resources were invested into establishing WTO legal expertise across various divisions. All three changes signify a change of attitude towards using legal rules to contend with trade partners (Pekkanen 2001: 712).

Pekkanen (2001: 707-708) is the first to coin the term 'aggressive legalism' to describe the emergence of this strategy. This new strategy 'is not about the oft-heard distinction between bilateral and multilateral approaches to dispute resolution. Rather, it is far more precise and constraining, because it is about the use of the international legal rules'. Japan's new trade strategy is based on using the rules of the WTO to counter the perceived unreasonable actions of its foreign trade partners. The WTO agreements and treaties are being used as instruments of power and means of persuasion against trade partners in a totally legitimate manner as is allowed under the WTO. Legal rules are being made to matter in Japan's trade diplomacy. Aggressive legalism then, is 'a conscious strategy where a substantive set of international legal rules can be made to serve as both 'shield' and 'sword' in trade disputes among sovereign states' (Pekkanen 2001: 708).

If Japan's new foreign trade policy can be described as aggressive legalism, is this only applicable to Japan? How has the foreign trade policies of other post-developmental states changed since the emergence of the WTO? While there was some misunderstanding in applying the developmental state concept, there is a clear difference between the Northeast Asian developmental states of Japan, Korea, and Chinese Taipei and the Southeast Asian states which displayed very little developmental capacity. For practical reasons, it is far too early to draw conclusions from Chinese Taipei's involvement in the WTO as it has only been a member since January 2002 but can any conclusion be drawn from Korea which has been a WTO member since 1995? In this regard Ahn's works has been leading in providing a detailed legal perspective to WTO dispute settlement involving Korea and East Asia in general<sup>ii</sup>. This study differs from Ahn's legal perspective on WTO dispute settlement by focusing on Korea's engagement with the WTO through an international political economic perspective.

Since 1995, there has been a dramatic shift in the foreign trade policies of the Korean Government in using the rules of the WTO. As in Japan, this is a deliberate strategy that is best described as aggressive legalism. I follow on from this point through briefly discussing the evolution of Korea's new strategy.

## The Evolution of Korea's Aggressive Legalism

It was not until 14 April 1967 that Korea formally acceded to the GATT. As part of a rush to be recognized as an independent state after the Second World War, Korea had first sought to enter the GATT in 1950 but domestic ratification could not be completed due to the onset of the Korean War from 1950-53. Two other reasons explain why Korea's formal accession occurred 17 years after the original application. Firstly, the economic benefits of joining the GATT were in doubt but during the 1960s, there was new focus on development issues in order to gain greater involvement from developing countries. Secondly, utilisation of the GATT's dispute settlement procedures had virtually become dormant during the 1960s. These two factors were favourable terms for Korea's developing nation status at the time of accession. (Ahn 2003a: 599)

Under the GATT, Korea aimed to avoid formal dispute settlement as much as possible. Korea was challenged on only two occasions, first in 1988 in *Korea – Restrictions on Imports of Beef* and the second time in 1992 in *Korea – Anti-Dumping Duties on Imports of Polyacetal Resins from the United States*. In both cases the Panels concerned ruled against Korea. Korea was a complainant in the GATT only on one occasion in 1978 in *EC – Article XIX Action on Imports into the U.K. of Television Sets from Korea* of which resulted in Korea withdrawing the complaint and settling on a Voluntary Export Restraint (VER). (Ahn 2003a: 602)

This overall lack of involvement in the GATT can be explained by well-known problems such as the behind-the-scenes bargaining and deal-making and the ability for countries to 'opt out' of specific disciplines (Hoekman 2002: 41-46, Watkins 2002: 78). Another important reason is that Korea tried to play a low profile in maintaining the provisions allowed as a developing nation in Korea's accession to the GATT such as non-reciprocity, infant industry protection, and balance-of-payment protection measures (Ahn 2003a: 599). A third reason has to do with the Cold War alliance with the US and the reliance on the US market. While the US may have tolerated Korea's protectionist measures, Korea's dependence on the US market and the continued security threat from the North, restrained Korea from retaliating against US measures. For example, from 1975 until 1994, among 98 Section 301 cases Korea had been targeted 10 times (Ahn 2003a: 608). And yet on no occasion did Korea initiate a dispute against the US in the 28 years since Korea's accession to the GATT. This of course has changed with the emergence of Korea's aggressive legalism and where the bulk of complaints have been directed at the US.

From 1995-2004, Korea has appeared as a respondent in thirteen different cases, six of which have led to the establishment of a Panel and four of which have led to the establishment of an Appellate Body. As a complainant from 1995-2004, Korea has initiated eleven cases against other countries, ten of which have led to the establishment of a Panel, and three of which have led to the establishment of an Appellate Body.<sup>iii</sup> The figures speak for themselves. There has been a dramatic change towards using the legal rules of the WTO to resolve trade disputes compared to Korea's involvement in the GATT.

What are the motivations behind this dramatic shift? Bilateral pressures for liberalisation principally from the United States that began under Reagan best provide answers to this question. From the mid 1980s until the onset of the Asian Financial Crisis in 1997, the US sought to redefine the terms of the Cold War alliance in relation to the economic relationship with Korea. The US was faced with increasing competition from emerging Asian NICS and straddled with a large current account and fiscal deficits in the early 1980s; the US began to attack the state's interventionist policies and demanded greater market access.<sup>iv</sup> Added to this, the continuing US threat of trade sanctions under the 'Super-301' provisions of the Omnibus Trade Bill against Korea's active exchange rate policy<sup>v</sup> and US unilateralism in general as experienced under the GATT best explain Korea's move to seek a more effective method to curb US bilateral demands through the legal rules of the WTO. The WTO's Dispute Settlement Unit (DSU) offers many advantages over its predecessor, the GATT but a key hallmark of the system is the how the enforcement of decisions made pursuant to the DSU is decentralised, if respondents refuse to comply with Appellate Body rulings, winning complainants can impose retaliatory sanctions (Garrett & Smith 2002). Thus, the WTO offers a far more reliable forum than the former GATT.

The change in Korea's approach to the use of legal rules emerged two years after the birth of the WTO in 1995. In all five cases initiated against Korea in 1995 and 1996, Korea chose to resolve these before reaching the establishment on a Panel. It was in 1997 where a definitive change in Korea's approach to the WTO is clear in

terms of litigating cases as a defendant with the full use of the DSU (Panel and Appellate Body hearings). It was also in 1997 that Korea initiated its first two complaints in the WTO.

Three key landmark cases are crucial in reinforcing Korea's commitment to the using the legal rules of the WTO as the basis of the dramatic change in Korea's foreign trade policies. In January 1999 for the first time in Korea's history with the GATT/WTO Korea won a case in *US – Anti-Dumping Duty on Dynamic Random Access Memory Semiconductors (DRAMs) of One Megabyte or Above Originating from Korea*. The realisation of the potential power embodied in the legal rules of the WTO as a 'sword' was further buttressed by the realisation that the same rules could also be used as a 'shield' after Korea successfully defended a case for the first time in *Korea – Measures Affecting Government Procurement* in May 2000. By now Korea's confidence in using the legal rules of the WTO was evident. This was reinforced further by the fact that for the first time a team comprised only of Korean Government officials successfully litigated a case without the use of foreign private counsel in February 2002 in *US – Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea* (Ahn 2003a: 622).

A sign of this new shift towards aggressive legalism is also evident in changes in the state bureaucracies. As part of the government reorganisation reforms in 1998, the Ministry of Foreign Affairs was reorganised to become the Ministry of Foreign Affairs and Trade (MOFAT) incorporating the newly established Minister for Trade<sup>vi</sup>. While in principle the Minister of Foreign Affairs and Trade is responsible for trade matters but in practice, authority rests with the Minister for Trade whose position was specifically set up to 'comprehensively establish and conduct foreign policies on trade, trade negotiations and foreign economic affairs' (WTO 2004: 18).

MOFAT has also established a 'WTO Division' under the 'Multilateral Trade Bureau'. In fact, specialised 'international trade law' or 'WTO divisions' have been institutionalised across many ministries involved in trade policy formulation including: the Ministry of Commerce, Industry, and Energy (MOCIE), the Ministry of Finance and Economy (MOFE), the Ministry of Agriculture and Fishery (MAF), Ministry of Information and Communications (MIC), Ministry of Construction and Transport (MOCT), and the Ministry of Maritime Affairs and Fisheries (MMAF) (WTO 2004: 18).

Since 1998, MOFAT has operated 16 sectoral Trade Policy and Negotiation Private-Sector Advisory Groups in areas such as agriculture, automobiles and telecommunications to exchange views on trade policy formation. MOFAT also regularly consults with peak business organisations such as the Korea Chamber of Commerce and Industry (KorCham), the Federation of Korean Industries (FKI), and the Korea Federation of Small Businesses. Various ministries are involved in regular meetings with the private sector to exchange views on multilateral trade negotiations through five Sub-Committees of the Government-Private Sector Joint Forum on the WTO Doha Development Agenda which covers agriculture, services, non-agricultural products, intellectual property rights, and the environment. (WTO 2004: 19)

Thus, it appears that the newly established MOFAT and MOCIE (in charge of industrial policies and implementation of trade remedies) is leading the charge in Korea's new shift towards aggressive legalism but regular consultations between the sector specific ministries stated above also play important roles in trade policy formation.

I have briefly discussed the evolution of the dramatic shift that has occurred in Korea's foreign trade policies and this strategy is best described as aggressive legalism. Like Japan, Korea's new trade strategy is based on using the rules of the WTO to counter the perceived unreasonable actions of its foreign trade partners. Legal rules are being made to matter in Korea's trade diplomacy. Korea's aggressive legalism is a very deliberate strategy where a substantive set of international legal rules embodied by the WTO can be made to serve as both a 'shield' and a 'sword' in disputes with trade partners. In the two sections below I discuss important WTO cases which demonstrate the 'shield' and 'sword' aspects of aggressive legalism at work

## **The 'Shield' at Play**

The first five cases Korea responded in the WTO were all resolved through mutually satisfactory solutions. Korea obviously did not want to litigate these cases through the DSU but as from 1997 onwards, Korea began to utilise the

formal mechanisms of dispute settlement through appealing disputes to Panel and Appellate Bodies. The following two cases show how the state in Korea is using the rules of the WTO as a 'shield' to protect developmental practices in procurement policies.

#### **Procurement**

This next case called *Korea – Laws, Regulations, and Practices in the Telecommunications Procurement Sector* was the first case which involved attacks on Korea's procurement policies. In May 1996, the EC initiated consultations with Korea's procurement practices in the telecommunications sector and the lack of market access for European suppliers. The two major Korean companies in the domestic telecommunications market were Korea Telecom (KT), a government invested company and Dacom, a private company<sup>vii</sup>.

The EC argued that the Minister of Communications (MOC) was responsible for the development and implementation of promotion of telecommunications technology which includes the financing of research institutes. The MOC, it was maintained, could require network operators to make financial contributions to such institutes and select companies as research subjects for these institutes, to promote the domestic production of telecommunications equipment. The EC also stated that the Government Procurement Fund Act covered government and local agencies but also 'other agencies' such as KT, a government invested company. The Act also made provisions that procurement of goods and services from foreign suppliers occur only when they are not available on the domestic market.

The effect of these regulations restricted 90% of KT's procurement to local suppliers of which the Europeans did not have access. The second major Korean company in the telecommunications market, Dacom, allegedly applied internal procurement rules which allowed foreign purchasing only if it was not available on the domestic market. The EC questioned the WTO legality of the Government's role in Dacom's procurement policies. The Europeans were questioning not so much the WTO consistency of KT's actions and the regulations involved, as they would appear to be consistent under Korea's obligations under the Government Procurement Agreement (GPA), but rather the Europeans targeted the fact that while Korea's procurement practices may have been WTO consistent, benefits accruing to the EC, in terms of market access were in question. This is also made clearer by the fact that the EC also brought to light that US products were given an advantage after Korea-US bilateral telecommunications agreements required KT to partly open its procurement of network equipment to US companies.

Perhaps to avoid the possibility of further litigation or a lack of experience in the WTO, the dispute was resolved through consultations, notified to the Dispute Settlement Body (DSB) in October 1997<sup>viii</sup>. But what is important to note is that in response to Korea's accession to the GPA, it would appear as this case exemplifies by the target of the EC's claims, that Korea's procurement policies had been adjusted to meet those restrictions. But judging from the procurement policies of a privately owned company, Dacom, administrative guidance still exists as a developmental tool for the state even under the rules of the WTO.

This case however, was only the first attack on Korea's procurement policies. The next case called *Korea – Measures Affecting Government Procurement* was appealed before a Panel and it is also the first case that Korea won in the WTO.

In February 1999, the US initiated consultations with Korea over the WTO consistency covered by the GPA, of the procurement practices in the construction of Incheon International Airport (IIA). At issue was whether the 'entities' responsible for the procurement of the new airport were covered under the GPA and if so, were in violation of provisions of the GPA through its procurement practices<sup>ix</sup>.

The US alleged that the 'entities' covered under the GPA were the Ministry of Construction and Transportation (MOCT) and the New Airport Development Group (NADG) which was a part of the MOCT and had assumed responsibility for the IIA project, the Korean Airport Authority (KAA), the Korea Airport Construction Authority (KOACA), and the Incheon International Airport Corporation (IIAC)<sup>x</sup>.

The key issue was whether the KAA, KOACA, and the IIAC were 'central government' entities as subsidiary organisations of MOCT. If so, then the US was correct to claim that these three agencies were part of the MOCT and therefore were government authorities covered under the GPA. Korea however, argued that KAA, KOACA, and the IIAC were in fact independent legal entities which conducted contracts on its own behalf and subject to its own procurement regulations and thus were not 'central government' entities. The Panel ruled in favour of Korea, noting that there were errors made when negotiating Korea's accession to the GPA, in terms of the

definition of the ‘entities’ covered by the agreement but that the entities in the construction of the airport were not in fact covered by the GPA<sup>xi</sup>. The US did not make an appeal.

Korea as a member of the GPA since 1994 had abided by the rules of the WTO and successfully defended discriminatory procurement practices. The procurement of the IIA was conducted by KAA, KOACA, and the IIAC that discriminated against foreign suppliers through four mechanisms: requirements to have manufacturing facilities in Korea, domestic partnering, the absence of challenge to procedures, and inadequate deadlines<sup>xii</sup>. And these mechanisms under the full glare of the international community were ruled as WTO consistent.

Perhaps what is even more significant about this case is that developmental tools such as administrative guidance are also being defended in the WTO. The Korean Government has often established special task forces or committees with special mandates such as the KOACA, whose legal foundations are obscure as is prescribed by the Government Organization Act (Ahn 2003a: 615). The KAA, KOACA, and the IIAC are in a WTO legal sense, independent entities and yet practice discriminatory procurement policies. Thus in a highly legally innovative method, Korea has been able to be both protectionist and consistent with WTO rules. In Korea developmental tools such as administrative guidance, *Haengjong Chido* in Korea (and *Gyosei shido* in Japan) are very much alive and persist even under the WTO (Woo-Cumings 2003: 201).

## The ‘Sword’ at Play

I now turn to how Korea is using the rules of the WTO firstly as a ‘sword’ to implement reforms in even the most politically sensitive industries such as alcohol and rice and secondly, to attack what is perceived as the unfair practices of trade partners through litigation in the WTO. These complaints have been lodged on behalf of three main industries: semi-conductors, steel, and shipbuilding.

### The ‘Sword’ in the Domestic Arena: The Alcohol and Rice Market

In April 1997 the European Communities and the United States in May of the same year initiated consultations with Korea over the issue of taxes on alcoholic beverages. *Korea – Taxes on Alcoholic Beverages* was the first case in which Korea dealt with the entire WTO dispute settlement procedure that involved rulings by the Panel and Appellate Body. The measures at issue was the imposition of a differential and preferential tax rate through the liquor tax and education tax on diluted *soju* relative to other alcoholic beverages such as whisky. Under the Liquor Tax Law of 1949, Korea had imposed various categories of distilled spirits on which it imposed different tax rates regardless of whether the product was manufactured in Korea or not. The Education Tax Law of 1990 is a surtax imposed on a variety of product categories and covers most alcoholic beverages. In other words, it is a tax which is determined as a percentage of the established liquor tax. This tax structure had resulted in a 30% surtax for imported distilled alcoholic beverages such as whisky. Of all distilled alcoholic beverages, only *soju* and liqueurs were subject to the lesser 10% surtax.<sup>xiii</sup>

The case was very similar to a dispute initiated by the EC, Canada and the US in *Japan – Taxes on Alcoholic Beverages*. The Panel and Appellate Body in this dispute found the Japanese tax system to be discriminatory against imported alcoholic beverages over a Japanese alcoholic beverage called *shochu* (Ahn 2003a: 612). The Panel and Appellate Body in *Korea – Taxes on Alcoholic Beverages* also ruled that *soju* and other alcoholic beverages such as whisky were directly competitive or substitutable products and Korea therefore had taxed the imported products to protect domestic production<sup>xiv</sup>. Korea subsequently amended the Liquor Tax Law and Education Tax Law and imposed flat rates of 72% in liquor tax and 30% in education tax (Ahn 2003a: 612).

This dispute gathered enormous media attention and much public discontent. The *soju* manufacturers also objected perhaps not so much in terms of the WTO ruling but more because the Korean Government substantially raised the price of *soju* rather than reducing the tax on imported alcoholic beverages. The rationale behind this was to both implement the WTO’s ruling and also to minimize the potential adverse impact on public health (Ahn 2003a: 612).

If the increase in the price of *soju* implemented with the legitimate power of WTO rulings in the hands of the state are considered controversial, then the continuing liberalisation of the rice market will be the biggest test of the new power in the hands of the state.

International rice prices are generally more than four times cheaper than rice produced in Korea and during 2004; Korea held more than 50 rounds of talks with rice exporting countries. The two major players in opening Korea's rice market are the United States and China which account for 85 percent of Korea's rice imports. During the Uruguay Round of talks in 1994, Korea was granted a 10 year grace period to allow rice imports to reach 4 percent of domestic consumption. The Ministry of Agriculture agreed to increase the quota to 7.96 percent for the next ten years until 2014. This will essentially allow imported rice not only to be used in snacks and processed foods but allowed to be sold directly to consumers. In other words, for the first time the Korean rice market will be opened in a real sense. Despite the Agricultural Ministry's promise of increasing various subsidies and benefits, falling incomes among farmers have led to fierce demonstrations by civic groups and by the Korea Peasants League representing more than 100 local farming communities.<sup>xv</sup> Agriculture in any industrialised country is a sensitive issue but the point is that Korea is using the newly found power in WTO rules to implement changes even in the most politically sensitive industries such as *soju* and even in rice.

It matters less whether such reforms have occurred due to pressures from the WTO. The point is that, it is the state in Korea which is implementing such controversial measures in industries which had long been protected by political interests. This may be due to the fear of retaliation by trade partners if Korea chooses non-compliance and also to maintain legitimacy in the eyes of the international community and thus giving Korea a 'moral' advantage in future trade disputes. As Pekkanen (2001: 734) puts it 'aggressive legalism is a double-edged sword'. In using the legal rules of the WTO to attack trade partners, Korea's trade practices is also now more vulnerable to foreign scrutiny and open to challenge. But it is ultimately the state, which chooses to implement WTO decisions and commitments based on the political calculations involved in the WTO legal game. I now focus on how the 'sword' is also being used in the international arena to resolve disputes against trade partners in the WTO.

#### **The 'Sword' in the International Arena: Semi-Conductors**

It was not until two years after the birth of the WTO that Korea launched a complaint. In July 1997, Korea began formal consultations with the US over the imposition of anti-dumping duties on Samsung color television receivers. This case was quickly resolved when the US revoked the duties and Korea withdrew the request for the establishment of a Panel and the proceedings were terminated.

In August 1997 only one month after the initiation of the case above, Korea initiated another dispute in the WTO. In *US – Anti-Dumping Duty on Dynamic Random Access Memory Semiconductors (DRAMs) of One Megabyte or Above Originating from Korea*, the US was brought to the WTO over the refusal to revoke anti-dumping duties on semi-conductors (DRAMs) from Korea. Korea argued that semi-conductor producers had not dumped their products for three and one half consecutive years as required by the DOC and that this had demonstrated that future dumping would not occur. What was really at issue however, was the regulations and standards used by the US DOC which allowed the anti-dumping duties to continue on the basis that the resumption dumping was 'likely' to occur<sup>xvi</sup>.

The Panel ruled that those US DOC regulations and standards in question were inconsistent with WTO rules and that the final review process of the anti-dumping duties were also WTO inconsistent<sup>xvii</sup>. This first win in the WTO as a complainant occurred shortly after Korea had lost its first full litigation as a respondent in *Korea – Taxes on Alcoholic Beverages*.

The US and Korea agreed to an eight month implementation period, that is, by November 1999, for the duties to be revoked and the WTO inconsistent regulations of the DOC be adjusted. By March 2000 however, Korea had resorted to Article 21.5 of the DSU in referring the dispute back to the original Panel, arguing that while the US DOC had deleted the 'not likely' standard and incorporated the 'necessary' standard of the WTO Anti-Dumping Agreement (ADA), the regulations were still in contravention of WTO rules and that the anti-dumping duties had resumed<sup>xviii</sup>.

On 21 September 2000 Korea requested the Panel to suspend its work and on 20 October 2000, the US and Korea had notified the DSB that a mutually satisfactory solution had been achieved with the revocation of the anti-dumping duties on Korean DRAMS after the results of a five-year US DOC sunset review<sup>xix</sup>. There was however, no mention of a WTO consistent adjustment to the US DOC regulations in question.

While this case was the first win for Korea in the WTO as a complainant, trade remedies against Korean semi-conductor exports would again lead to litigation several years later. In July 2002 the European Commission

initiated a countervailing duty investigation on Korean semi-conductor producers arguing that the Korean Government had provided illegal subsidies under the WTO Subsidies and Countervailing Measures (SCM) Agreement (Ahn 2003a: 616).

As is well known, the Kim Dae Jung Government undertook corporate restructuring measures as part of the IMF programs to overcome the 1997-1998 financial crises<sup>xx</sup>. The European Commission alleged that illegal subsidies were given to semi-conductor producers when the Korean Government intervened through debt-for-equity swaps and debt forgiveness for struggling *chaebol* conglomerates. The countervailing duty investigation resulted in import duties of up to 30-35 percent on semi-conductors produced by Hynix, a company founded on the merger between Hyundai and LG Electronics<sup>xxi</sup>. Closely monitoring the restructuring efforts under the Kim Dae Jung Government, the US also initiated a countervailing duty investigation in November 2002 resulting in countervailing duties of up to 57.73 percent on Korean semi-conductor manufacturers (Ahn 2003a: 616).

The legality of these trade remedies by the EC and US have important implications for all industries which were part of the Kim Dae Jung Government's restructuring efforts and thus in June and July of 2003, Korea initiated formal consultations with the US and EC respectively. At this point, it appears Korea will be disputing the legality of the countervailing duties on the basis of breaches of the SCM Agreement. In general, Korea has argued that the US DOC, US ITC, and the European Commission lacks the evidence that would: firstly, show that a 'financial contribution' was made by the Korean Government as defined under the SCM Agreement and secondly, demonstrate that a 'benefit' was conferred onto the semi-conductor manufacturers given market benchmarks<sup>xxii</sup>.

While these two recent cases are pending a Panel ruling, the point is that Korea, like is putting faith into the dispute resolution process and aggressively using the rules of the WTO as a 'sword' to counteract what is perceived as the unfair practices of trade partners.

#### **The 'Sword' in the International Arena: Shipbuilding**

In a prelude to the 2002 investigation concerning Korean semi-conductors (DRAMS) by the European Commission, in October 2000, the European Commission initiated an investigation into the Korean shipbuilding industry. Under the EC's Trade Barriers Regulation (TBR), the Committee of European Union Shipbuilders Associations filed a complaint with regard to the financing structure of Korean shipyards. In what was to be targeted in the Korean DRAMS investigation, the European Commission found aspects of the corporate restructuring programs after the financial crises of 1997-1998 to be violation of WTO agreements. The outcome of the investigation was that the corporate restructuring programs and the assistance through taxation for shipbuilding companies that occurred under the Kim Dae Jung Government's reform efforts constituted illegal subsidies as defined under the WTO SCM Agreement (Ahn 2003a: 616). Subsequently, the EC and Korea held two rounds of bilateral negotiations in August and September 2002 which failed and thus the EC initiated formal consultations with Korea in October 2002.

Within two months after initiating formal consultations with the US and EC over the issue of countervailing duties on Korean DRAMS, in September 2003, Korea initiated formal WTO consultations with the EC over allegations of illegal subsidies to the European shipbuilding industries. Korea responded to the European challenge by arguing that various forms of export guarantees and guaranteed loan recovery schemes in states throughout the EC, constituted illegal subsidies as defined under the WTO SCM Agreement<sup>xxiii</sup>. But Korea's backlash against the EC accusations did not end here.

In February 2004, Korea initiated a second dispute against the EC's shipbuilding industry. In *EC – Aid for Commercial Vessels*, the WTO legality of European regulations such as the TDM Regulation came under attack. Korea argues that the TDM Regulation provides various forms of aid through government owned or government controlled financial institutions, which actually provide subsidies in favour of the commercial shipbuilding industry<sup>xxiv</sup>. Both disputes against the EC are pending Panel rulings.

The point of this discussion is again to show that as part of the dramatic change in Korea's foreign trade policies, the rules of the WTO are being used as a 'sword' to counteract the perceived unfair practices of Korea's trade partners. This will also be shown in how Korea is using the rules of the WTO to challenge the trade practices in the US steel industry.

#### **The 'Sword' in the International Arena: Steel**

The three disputes Korea has initiated in regards to the steel industry have been directed against what is perceived as the abusive use of trade remedies allowed under the WTO. These specifically relate to the calculation of anti-

dumping duties imposed by the US and the determinations in imposing safeguard measures again by the US, on various Korean steel products. The following three cases will demonstrate that the dramatic change in Korea's trade strategies is very real and the multilateral rules of WTO are being consistently utilised to resolve even the most politically sensitive disputes against Korea's old Cold War ally, the United States.

The first case Korea initiated involving the US steel industry concerned the imposition of two separate anti-dumping duties by the US DOC on stainless steel plate in coils (plate) and stainless steel sheet and strip in coils (sheet). The anti-dumping duties on plate were originally calculated between the 1 January to 31 December 1997 and a preliminary dumping duty of 2.77 percent on Korean exporters (including Pohang Iron and Steel Company 'POSCO') was issued by the DOC. The investigation was held during the financial crisis and the value of the Korean Won was subject to extreme fluctuation and thus the DOC's final dumping margin was recalculated to 16.26 percent. Anti-dumping duties on sheet were calculated by the DOC during the period 1 April 1997 to 31 March 1998, again during a period of extreme fluctuations in the value of the Won during the financial crisis. The DOC issued a preliminary dumping margin of 58.79 percent for the Taihan steel company and 12.35 percent for other Korean steel exporters such as POSCO (the margin for POSCO was revised to 3.92 percent after allegations of miscalculations). The final dumping margins issued by the DOC were maintained at 58.79 percent for Taihan and 12.12 percent for POSCO and other Korean steel exporters. (Ahn 2003a: 620)

In July 1999, Korea initiated the case *US – Anti-Dumping Measures on Stainless Steel Plate in Coils and Stainless Steel Sheet and Strip from Korea* and questioned the WTO consistency of the calculations of the anti-dumping margins described above. The calculation of anti-dumping margins by the US DOC permitted 'various price adjustment(s) to find "ex-factory" prices but no modification for volatile exchange rates except for averaging'. The Panel found the US measures inconsistent with WTO rules in respect of double currency conversion and the use of multiple averaging periods in light of the extreme fluctuations that had occurred during the DOC's periods under investigation. To illustrate just how extreme the fluctuations were, in October 1997 the value of the Won was steady at close to 900 Won for one US Dollar; by January 1998 the Won was valued at just over 1700 Won to the US Dollar. (Ahn 2003a: 621)

This was the first case that Korea initiated against US measures in the steel industry and the first 'win' after the success in *Korea – Measures Affecting Government Procurement* and contributed significantly to the confidence in the WTO's multilateral dispute resolution process even against important political allies and trade partners such as the US. It contributed to the perceived impartiality inherent in dispute resolution based on legal grounds.

Korea launched a second dispute in June 2000 involving the US steel industry in *US – Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea*. The target of Korea's dispute was on the safeguards imposed by the President on 11 February 2000 that were far more restrictive than that recommended by the ITC and exempted Mexican and Canadian suppliers from the safeguards. The duties involved disproportionately injured the largest suppliers of line pipe that is, Korean exporters. Korea disputed the procedures and determinations that led to the imposition of the safeguard measures as well as the legality of the safeguard itself. The Panel and Appellate Body accepted Korea's arguments in large part and the US Government agreed to increase the in-quota volume of imports from 9,000 to 17,500 tons and to lower the safeguard tariff to 11 percent. But the time involved in the WTO dispute settlement meant that in practical terms, the implementation of the WTO DSU's rulings would end basically with very little more than the original expiry date of the safeguard measure itself. (Ahn 2003a: 622-623, 626)

Despite this problem, which is a systemic problem in the WTO with regards to the implementation of disputes involving safeguards, this case is important in that it was the first case handled entirely by Korean Government officials. In previous cases, foreign legal counsel had played primary roles in Korea's WTO litigations (Ahn 2003a: 622). This case was the second 'win' for Korea as an initiator of disputes after the success in *Korea – Measures Affecting Government Procurement* and the total involvement of Korean Government officials makes clear that this case made concrete Korea's confidence in the WTO and enhanced the capacity of officials to gain much needed legal expertise for future disputes.

In one of the most controversial and highly publicized disputes, Korea initiated consultations with the US in March 2002 over the issue of US safeguard measures on ten related steel products and related laws including Section 201 of the Trade Act of 1974 and Section 311 of the NAFTA Implementation Act<sup>xv</sup>. In *US – Definitive*

*Safeguard Measures on Imports of Certain Steel Products*, apart from Korea, the EC, Japan, China Switzerland, Norway, New Zealand, and Brazil also filed complaints regarding the same issue (Ahn 2003a: 624). The complainant parties targeted three main areas against the US measures: firstly, in showing a justifiable case for 'increased imports', secondly, the methodology used to determine the 'causal link' between any increased imports and serious injury, and thirdly, the methodology used for determining 'parallelism' between the imported products and 'like' products<sup>xxvi</sup>.

The Panel ruled against the US safeguard measures and in August 2003 the US appealed to the Appellate Body where parts of the Panel's rulings were reversed but largely upheld<sup>xxvii</sup>. Korea made the first compensatory request but when the US did not agree on satisfactory compensatory arrangements, the EU, Japan, Norway, China, and Switzerland proposed suspension of concessions. But instead, Korea chose to postpone potential retaliation for three years until 19 March 2005 (Ahn 2003a: 625). This of course was a political gesture by Korea in maintaining the legitimacy of the WTO as the original US safeguard measures were set to expire on 20 March 2005 anyway. Korea's actions show that while it could have also agreed to suspend concessions, it did not and thereby create a sense of responsibility and greater legitimacy to Korea's place in the WTO. This is just further testimony to Korea's interests and commitment to maintaining the still fragile WTO as the main instrument of counteracting the unfair practices of trade partners.

## **The Emerging 'Post-Developmental State'**

Above, I have traced the evolution of Korea's dramatic shift towards aggressive legalism detailing a selection of cases. The three key ingredients of a developmental state found in Northeast Asia during their high-growth era are: firstly, transformative goals (closing the technology gap between themselves and industrialised countries), secondly, an insulated pilot agency which coordinates that transformative project, and thirdly institutionalised government-business cooperation (Weiss 2004b: 155, Wong 2004a: 350-353). The unraveling of this model in Korea from the 1980s is well documented and the Asian Financial Crisis was seen as the final blow to the dismantling of Korea's developmental state. The key question of veteran researchers is to what extent dismantling will occur or whether there will be a significant return to a developmental outlook (Weiss 2004: 154-157). Findings from recent studies have focused on changes within the Korean developmental state and argue that while changes are still underway, it is far too early to state that there will a transformation of developmental institutions, rather than 'adaptive' change consistent with historical precedents or 'path dependency' (Weiss 2003b: 268, Woo 1999: ix-xiii). Christopher Dent's (2000: 294-295) recent study of Korea's foreign economic policy in the aftermath of the financial crisis supports such claims of continuity rather than change.

In a study of the development of the biotechnology industry in Korea, Wong (2004b: 513) argues that while Korea's dominant state model of the past is no longer a realistic portrayal of Korea's current economic model, a developmental state adapting to the new challenges of innovation rather than 'catch-up' is in progress and is marked by three key changes. Firstly, although there is a lack of a coordinative pilot agency, there is now 'cooperation through competition' between different state ministries in biotechnology development. Secondly, state agencies have become partners with private industry rather than a state that coordinates R&D from a top-down perspective. Thirdly, high-tech innovation has been led by the R&D activities of Small and Medium Enterprises (SMEs) and government efforts have been at an arms-length and indirect. Therefore, at least in the biotechnology industry, one does not find a complete dismantling of developmental institutions but rather a developmental state adapting to changes in the international political economy.

The findings presented in this paper suggest similar findings of 'adaptation' rather than transformation of developmental institutions in relation to foreign trade policies. While a key pilot agency like that of the Economic Planning Board (EPB) with wide ranging powers no longer exists, the newly constituted MOFAT and MOCIE (in charge of implementing industrial policies and trade remedies) has been leading Korea's dramatic shift in using the legal rules of the WTO. And as was mentioned previously, these two ministries have been active players in institutionalising links with peak industry associations in trade policy formation.

Korea's 'aggressive legalism' demonstrates how the state is adapting to new challenges through carefully implementing policies that are both developmental and still WTO consistent. The point to make clear is that it is the state which is implementing reforms, defending developmental institutions, and making the decision to initiate cases on behalf of industries in the WTO. As the cases on government procurement demonstrate, discriminatory practices still exist and institutions such as administrative guidance are very much alive. Indeed in the aftermath of the crisis a body of opinion rose that a primary cause was the absence of the 'rule of law' and the preference for informality in Korea such as the use of informal mechanisms of state intervention such as administrative guidance (Woo-Cumings 2003: 200). Korea's active adoption of the legal rules of the WTO may appear to show that there is a change towards greater respect for the 'rule of law' embodied in common law traditions (found in the US, UK, Australia) as opposed to 'rule by law' embodied in civil law (found in Korea, Japan, and Germany) traditions. Such a conclusion could be drawn based on explanations which portray regional or international institutions as reflective of domestic legal culture and institutions (Kahler 2000: 550). But my findings suggest that a civil law system continues in Korea and cannot magically be replaced by a common law system and confirms the views of Woo-Cumings (2003: 201-202) that in fact different law traditions have nothing to do with economic development or the use of administrative guidance. The emergence of aggressive legalism in Korea has little to do with reflecting national legal traditions and as the government procurement cases show, informal mechanisms of state intervention such as administrative guidance continue even under the nose of the WTO and is being *legally* defended with those same rules.

At this point it is necessary to clarify the strengths and weaknesses of my findings. I am not claiming that Korea's 'aggressive legalism' is more strategic or different from what other countries such as the US may be doing in utilising the legal rules of the WTO. State activism in foreign trade policies is well recognised in studies of US foreign policy as an area distinct from the neo-liberal institutions of the US domestic arena<sup>xxviii</sup>. In this respect, the findings of this paper are hardly surprising considering the historical developmental trajectory of Korea's economic development. The findings are however important in bringing greater scholarly attention to the dramatic shift in Korea's foreign trade policies. This is an area which has received very little focus and deserves to be explained. The more important implications of studying Korea's aggressive legalism is that, whether or not countries such as the US are pursuing aggressive legalism, it does shed new light on the changes occurring in Korea's emerging 'post-developmental state' model. I now locate these findings within the much broader globalisation debate.

## Implications for the Globalisation Debate

In recent times the standard 'radical' view that globalisation has or will lead to the total extinction of the nation-state has been replaced with that of the 'constraints' school which posits not the demise of the state but the transformation of the state into a much reduced role in governing the national economy<sup>xxix</sup>. The 'constraints' school proposes two key propositions. The first is that financial openness through the 'electronic herd' is forcing the state into the straightjacket of fiscal conservatism, cutting budgets, taxes and spending causing constraining effects on fiscal, welfare, and industrial-technology policies. Governments continue to try to attract and retain mobile capital by meeting the preferences of multinational corporations (MNCs) and financial markets, by failing to do so governments face the 'exit threat'. Thus, 'financial openness and corporate mobility are expected to exert downward pressure on fiscal and social policy, forcing welfare retrenchment, corporate tax cuts, and shifts in the tax burden from capital to labour' causing a 'race to the bottom'. (Weiss 2003a: 7-8)

The second proposition of the 'constraints' school is that states are losing their autonomy or independence to pursue national economic goals as their room to manoeuvre is increasingly constrained by the rise of international agreements and organisations such as the WTO. The multilateral rules embodied in such organisations are stripping away the authority to pursue trade, industry, and financial policies in the national context. Therefore it is not just the state's policymaking capacity that is being reduced but that the state itself is being downsized and transformed with the authority to govern the national economy being divided between other local, national and international actors. (Weiss 2003a: 8-9)

### **Legalism and the Diminishing Authority of the State?**

A key implication of the 'constraints' school is that the increasing legalisation of the international economy would also mean that the political power of the state is being divided and transferred to authority invested in the WTO's DSU which administers these legal rules. One cannot deny that at no other time in history has international economic law reached such prominence in the international political economy. Furthermore, the fact that a country which has traditionally steered away from formal litigation but is now an active participant in the DSU is a victory for legal scholars who emphasize the importance of international economic law and the continuing legalisation of the global economy<sup>xxx</sup>. But has greater legalisation replaced power and interest politics?

Korea dramatic shift towards a legalised trade strategy is very specific involving and constrained by the rules of the WTO. It is more than just the simple dichotomy between bilateralism versus multilateralism. The process involved in the WTO's DSU may be seen as a bilateral forum where one sovereign trade partner or partners respond to or complains against another (Pekkanen 2001:712). Thus, greater legalisation has not replaced power and interest politics in the WTO instead it can be seen as a way to render commitments more credible especially in dealing with major trade partners such as the US who have the most to lose by risking the very legitimacy of the WTO by not complying with adverse rulings (Kahler 2000: 571).

Garrett and Smith (2002) make clear that non-compliance among the major players pose a real threat to the perceived authority of the DSU considering the EC's ban on beef hormones and US safeguards on steel. Their study reveals the political maneuvering inherent in the short history of the WTO. In the pre-dispute phase of litigation, complainants have often chosen not to press a case when it is feared defendants would not comply with adverse rulings. Even in the litigation phase, it is found that the Appellate Body has been very active in facilitating compliance by losing defendants through tailored rulings. In terms of the compliance phase, the Dispute Settlement Unit (DSU) provides litigants with considerable discretion in the timing and form of compliance. The legitimacy of the WTO does indeed rest on fragile foundations, power and interest international politics is still very much alive in the DSU's short history.

Korea is using the legal rules as a weapon, seizing upon the political maneuvering and exposing the perceived abuses of their major trade partners. The 'wins' and 'losses' in disputes matter less than the simple truth that Korea is using the legal rules of the WTO as the key basis of foreign trade policies.

To use Weiss's (2004a) terminology, global institutions such as the WTO are indeed constraining in terms of abiding by the rules of the WTO but also 'enabling', Korea's aggressive legalism is about using those same rules to implement politically controversial reforms, pursue and protect developmental ambitions, and initiate disputes against other countries. Korea's dramatic shift towards the legalisation of dispute settlement also shows the willingness to use the issue of legitimacy to affect outcomes in trade disputes particularly with major trade partners. Thus one can observe the political 'entwinement' of national and global networks rather than the independence of global networks from the national as the 'constraints' view posits. As Korea becomes a larger player in the WTO legal game, the WTO's legitimacy will also come to rely more on Korea's continuing compliance of WTO rulings and commitments.

### **Conclusion**

The aim of this paper was two-fold. The first aim was to demonstrate that the concept of 'aggressive legalism' is not peculiar to Japan but can be extended to describe the dramatic shift in Korea's foreign trade policies. Korea's use of the legal rules of the WTO is truly a dramatic shift when considering that in the space of 28 years from Korea's accession to the GATT, Korea was involved in only two Panel proceedings as a respondent and only one case as a complainant. Since the emergence of the WTO in 1995, Korea has been involved as respondent in thirteen disputes and as a complainant in eleven disputes. Korea's 'aggressive legalism' is about using the substantive legal rules embodied in the WTO in two main ways: Firstly, as a 'shield' for controversial domestic policies as the cases on government procurement demonstrate. Secondly, the legal rules are used as a 'sword' in the domestic arena to implement reforms in politically resistant areas such as *soju* and rice. And in the international arena the legal rules

are used to attack the perceived unfair practices of trade partners particularly in the semi-conductor, shipbuilding and steel industries.

The second aim was to show how Korea's 'aggressive legalism', that is the use of the legal rules as a 'shield' and 'sword', reflects the adaptation of the state to changes in the international political economy such as the emergence of the WTO. The state plays an evermore active role in defending developmental institutions, implementing WTO rulings, and litigating disputes on behalf of national industries in the WTO's DSU. And even under the WTO, mechanisms of state intervention continue to persist such as 'administrative guidance'. While a key pilot agency no longer exists, Korea's WTO strategy has been coordinated between MOFAT and MOCIE and these two ministries have been leading in institutionalising links with peak industry associations.

This is yet an unfolding strategy but considering the continuing presence of US unilateral acts such as the use of Section 301 of the Trade Act, coupled with the significant 'wins' Korea has achieved in the WTO, 'aggressive legalism' will most likely remain as the basis of Korea's foreign trade policy. The changes in the 'post-developmental state' in Korea are also unlikely to become dismantled particularly in the regards to Korea's foreign trade policy establishment. The state will continue to play, if not a more, active role in governing the national economy.

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## End Notes

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<sup>i</sup> A term first coined by Saadia Pekkanen in Pekkanen 2001: 708.

<sup>ii</sup> See Ahn, Dukgeun 2003a for a detailed discussion of Korea and the WTO & Ahn, Dukgeun 2003b for a more general discussion of East Asia’s participation in the WTO.

<sup>iii</sup> Unless otherwise cited, all WTO figures are derived from data collected by the author between April 2004 – December 2004 from the World Wide Web: [www.wto.org](http://www.wto.org)

<sup>iv</sup> Thurbon 2003: 342. The specifically attacked the interventionist financial policies of Korea while demanding financial liberalisation to provide market access for US financial institutions. These were huge sources of revenue for the US current account. Also see Wade 2000: 109-110.

<sup>v</sup> Thurbon 2003: 343

<sup>vi</sup> See Korea’s Ministry of Foreign Affairs and Trade website: [www.mofat.go.kr](http://www.mofat.go.kr)

<sup>vii</sup> See WTO Document WT/DS40/1 (20 May 1996), the proceeding two paragraphs is based on this document.

<sup>viii</sup> See WTO Document WT/DS40/2 (29 October 1997)

<sup>ix</sup> See WTO Document WT/DS163/R (1 May 2000)

<sup>x</sup> See WTO Document WT/DS163/R (1 May 2000)

<sup>xi</sup> See WTO Document WT/DS163/R (1 May 2000)

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- <sup>xii</sup> See WTO Document WT/DS163/1 (22 February 1999)
- <sup>xiii</sup> See WTO Documents WT/DS75/R, WT/DS84/R (17 September 1998)
- <sup>xiv</sup> See WTO Documents WT/DS75/R, WT/DS84/R (17 September 1998) & WT/DS75/AB/R, WT/DS84/AB/R (18 January 1999)
- <sup>xv</sup> Kim, Min Hee (31 December, 2004)
- <sup>xvi</sup> See WTO Document WT/DS99/1 (15 August 1997)
- <sup>xvii</sup> See WTO Document WT/DS99/R (29 January 1999)
- <sup>xviii</sup> See WTO Document WT/DS99/7 (10 March 2000) & Ahn 2003a: 619
- <sup>xix</sup> See WTO Document WT/DS99/12 (25 October 2000)
- <sup>xx</sup> In terms of the Korean restructuring programs, see for example Weiss 2003b: 251-254
- <sup>xxi</sup> For further information see Hynix website: [www.hynix.com/eng/01\\_about/01\\_profile/profile\\_06.jsp](http://www.hynix.com/eng/01_about/01_profile/profile_06.jsp), & Ahn 2003a: 616
- <sup>xxii</sup> See WTO Documents WT/DS299/1 (31 July 2003) & WT/DS296/1 (8 July 2003)
- <sup>xxiii</sup> See WTO Document WT/DS301/1 (11 September 2003)
- <sup>xxiv</sup> See WTO Document WT/DS307/1 (19 February 2004)
- <sup>xxv</sup> See WTO Document WT/DS251/R (11 July 2003): The ten related steel products are: Certain Carbon Flat-Rolled Steel (CCFRS), tin mill, hot-rolled bar, cold-finished bar, rebar, welded pipe, Fittings and Flanges and Tool Joints (FFTJ), stainless steel bar, stainless steel rod, stainless steel wire.
- <sup>xxvi</sup> See WTO Documents WT/DS251/1 (26 March 2002) & WT/DS251/R (11 July 2003)
- <sup>xxvii</sup> See WTO Documents WT/DS251/R (11 July 2003) & WT/DS251/AB/R (10 November 2003)
- <sup>xxviii</sup> See the contributions in Katzenstein (Ed.) 1978
- <sup>xxix</sup> See for example: Strange 1996: 3-15.
- <sup>xxx</sup> For works on the importance of international law see in general: Slaughter, Tulumello & Wood 1998, and Hudec 1992. For works which emphasize the increasing legalisation of the global economy see in general: Jackson 1992, Bronckers & Quick 2000.

# **Economic Growth and Sustainability of Emerging Nations of the Eastern Caribbean via the International Financial Services Sector**

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## **Abstract**

The main industries in the Organisation of Eastern Caribbean States (OECS) have ceased to be viable economic options, hence the countries have shifted from agriculture to tourism and international financial services to ensure their economic survival. However, recently, the financial services sectors have come under severe challenges, thus resulting in a slowdown in economic growth in these countries. In addition, these countries face special developmental challenges due in part to their small size, mounting debt burdens, vulnerability to external shocks and natural disasters. Furthermore, these countries currently have very few prospects for economic growth, diversification and sustainable development. It is therefore imperative that these countries devise diversification and other strategies to ensure their short and long term survival. My paper examines the challenges faced by these nations and the importance of the international financial services sector. The paper concludes with general recommendations for the way forward for these emerging nations.

## **Introduction**

For many obvious reasons, the international financial services sector has emerged in small island economies like those in the Organisation of Eastern Caribbean States (OECS)<sup>1</sup> and have played on an ever increasing role in their development. Over the years, the main industries in the OECS were sugar, cotton, banana and other agricultural crops. However, about 25 years ago, these sectors ceased to be viable economic options for these small island economies. With the realization of this fact, the OECS countries were encouraged by the larger developed nations and multi-lateral institutions to diversify into other sectors. As a result, the OECS countries began to shift away from agriculture to services, particularly tourism and international financial services and more recently, to telecom-related services. Accordingly, all of the OECS countries adopted frameworks for the provision of international financial services and expended a great deal of resources to develop their people and their infrastructure to meet the needs of the international financial arena. Although few would argue about the contribution of the sector to these economies, the issue of whether the international financial services sector is the way forward for sustainable development remains in question. Furthermore, the countries of the OECS face special developmental challenges. This is due in great part to their small size, mounting debt burdens and vulnerability to external shocks and natural disasters. In addition, many of the countries have relied exclusively on one agricultural crop and on preferential trade arrangements which now face certain dismantling as a result of the World Trade Organization's (WTO) rulings. The purpose of this paper is to examine the challenges faced by the small island states of the OECS, assess the importance of the international financial services sector to their economies and discuss the potential viability of the international financial services sector to the diversification and long-term sustainability of their economies. The paper concludes with recommendations for the way forward.

## **Unique Characteristics of the OECS Countries**

The Caribbean is the world's most tourism dependent region, with tourism representing over 31% of the regions' GDP. The sector accounts for an average of 15.5% of total employment and in some of the countries, this figure is as high as 50%. There are 9 countries comprising the OECS region and for most, tourism is the primary means of accessing foreign currency.

All of the OECS nations are small economies with a total population of only 540,000. The combined GDP of the OECS countries, of approximately US\$3 billion pales in comparison to that of developed countries.

An issue affecting the nations of the OECS emanates from their substantial trade deficits. Over the years, the respective governments have been spending more than what they earn under conditions where imports are consistently greater than exports. This has led to increased borrowing and has resulted in escalating debt burdens and high interest payments in nations such as Antigua & Barbuda, Dominica and St. Kitts & Nevis which are now ranked among the top ten most indebted emerging market economies in the world. From 1997 to 2003, the average public debt to GDP ratio increased from 62 percent to 85 percent, making the Caribbean one of the most indebted regions of the world. The Economic Survey of the Caribbean 2003 - 2004 undertaken by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) found that domestic debt represents 34 percent of GDP, and foreign debt has reached 54 percent of GDP.<sup>2</sup>

A further attribute is that the OECS countries are characterized by little or no appreciable natural resources for growth and diversification. These nations do not enjoy the large land masses of Brazil, the United States or Canada, which are filled with natural resources, therefore the small size of their domestic markets affect the ability of their local firms to engage competitively in the global marketplace. As a result, the small firms in these nations have greater difficulties reaching economies of scale, attracting foreign business partners, developing marketing programs, benefiting from market intelligence and development activities, and investing in research and development.<sup>3</sup>

Of further concern to these nations is the high rates of HIV/AIDS infection which pose a serious health challenge in many of the small nations of the Eastern Caribbean.

Of particular concern is the vulnerability of the OECS countries to natural disasters that pose an ever-increasing threat to the region and can reverse decades of economic progress. These disasters come in the form of hurricanes, coastal erosions, volcanic eruptions, earthquakes and floods that frequently destroy the infrastructure, erode the environment and disrupt key economic activities. In August and September 2004, hurricanes Charley, Jeanne, Frances and most notably Ivan, a category 5 hurricane, wrecked havoc on some of the Caribbean islands, including Grenada and St. Vincent & the Grenadines. Losses to the OECS region were assessed at billions of dollars. Grenada received a direct hit from hurricane Ivan, which destroyed over 90 percent of the island's infrastructure, left 25 persons dead, more than 60,000 homeless, and the agriculture industry in ruins. The entire important nutmeg industry of the island was wiped out and their banana crop devastated. It is estimated that it will take 15 years for the nutmeg industry to return to its previous status and several years for the banana crop to return. The destruction from Hurricane Ivan wiped out much of the gains made by Grenada in recent years. In addition, since the countries of the OECS depend heavily on their natural resources such as their beaches, coastline, flora and fauna to attract tourists to their shores and given the growing importance of eco-tourism, the impact of the recent hurricanes to the tourism industry of the affected islands will take years to rebuild. However, it may be noted that in contrast to the tourism sector, after a natural disaster, the international financial services sector can be up and running in only a matter of days or weeks.

Of further concern is that some of the OECS countries are forced to live off of their exports since there is insufficient domestic demand. This is evident particularly in the Windward Islands of Dominica, Grenada, St. Lucia and St. Vincent & the Grenadines which rely heavily on banana exports. This dependence on export markets causes these countries to be particularly vulnerable to external shocks and other local, regional and international political factors.

## **Main Short and Long Term Issue**

It is clear that there are numerous challenges facing the nation states of the OECS. Despite these many challenges, the OECS countries currently enjoy relatively strong social indicators and a relatively high standard of living combined with a much higher life expectancy than many other countries. Notwithstanding this reality, it is believed that the main challenge over the short term will be how to maintain or increase growth levels while at the same time

containing indebtedness as well as inflation. For the long term, the challenge will be to enact diversification strategies to ensure economic development and sustainability of these small island nations.

## **The International Financial Services (Offshore) Sector**

The International financial services sector (offshore) was born because of the perceived need for flexible tax frameworks in the international arena. The central issue was one of high taxation but also stringent financial regulations in onshore jurisdictions.<sup>4</sup> Investing Offshore simply means the placement of an investor's assets in a tax jurisdiction other than where the investor lives. An offshore financial centre is a country or jurisdiction in which the conduct of international business is generally facilitated by more lenient financial and banking laws coupled with higher standards of privacy than in one's home country. Therefore, any country can be considered offshore. For example, the countries of the OECS are considered offshore for citizens of Switzerland, the US or the UK, while their countries are offshore for the citizens of the OECS countries.

Over the past thirty years, offshore financial centers have become an increasingly major part of the emerging global financial system. Estimates of the size of the global offshore financial services market range between US\$10 and US\$12 trillion. This represents approximately 60% of the world's financial resources.<sup>5</sup>

There are approximately 70 offshore financial centers worldwide. The principle offshore centers are London, Switzerland, Hong Kong, Singapore, Bahrain, etc. These centers are full service environments and have sophisticated settlement and payment systems. On the other hand, small jurisdictions, or most commonly small island states, like the OECS (except the British Virgin Islands)<sup>6</sup> have been most commonly considered as secondary or tertiary centers since they are basically company registries that provide limited banking and other value added services. The bank accounts and assets of the companies registered in these smaller jurisdictions are generally held in the principle or developed countries. Nevertheless, many of the services offered in the smaller offshore jurisdictions continue to be in heavy demand.

### **Reasons for Going Offshore**

Individuals and multinational corporations generally invest offshore for a variety of reasons. Some of these reasons are to enhance income tax planning strategies, to facilitate gift and estate planning via the use of family and protective trusts or as an alternative to a will, for long-term benefits to beneficiaries and for accumulation of investment income.

Structures incorporated in offshore jurisdictions offer investors greater diversification of their assets and investments as well as a number of other advantages such as income tax deferral. They also offer increased confidentiality and privacy. These characteristics are extremely important to many persons and multinational companies that legitimately utilize offshore structures.

Companies operating in the offshore jurisdictions (or tax havens) generally operate through the use of International Business Companies (IBCs). These IBCs are granted government guarantees from income taxes as long as they do not operate in that country and their business revenue does not come from within that country. An examination of most of the Fortune 500 and many of the biggest multinational corporations would demonstrate that they currently invest offshore. These companies include Firestone, Boeing, Exxon, Caterpillar, Sears and a host of other corporations. Also included are many financial institutions and banks such as American Express, Citibank, Chase and Bank of America. One very attractive reason for the financial institutions using offshore jurisdictions is that banking and financial service profits from interest dividends and capital gains in offshore financial centers are generally higher than can be obtained in their domestic markets and may be virtually tax free to the financial institution. Furthermore, offshore banks and institutions are not subject to the vast amount of constraints with respect to their investments and thus have a much wider horizon of opportunities in which to invest than many of the banks in the developed countries.

Moreover, the offshore financial services jurisdictions, through the use of asset protection trusts offer greater protection such as from frivolous litigation which is rampant in some developed countries. In fact, in recent years, there has been a significant increase in the number of frivolous litigation and Product Liability Lawsuits,

particularly in the United States. As a consequence, persons and institutions are very concerned about protecting their assets and thus may utilize structures incorporated in offshore jurisdictions to achieve this objective.

## Development of the Offshore Sector in the OECS Countries

Table 1 demonstrates that in the past two decades, all of the OECS countries have enacted legislation for the establishment of frameworks for the provision of offshore financial services.

TABLE 1: JURISDICTIONS & DATES OFFSHORE CENTER ESTABLISHED

JURISDICTION	YEAR SECTOR ESTABLISHED
Anguilla	1994
Antigua & Barbuda	1982
British Virgin Islands (BVI)	1984
Dominica	1996
Grenada	1997
Montserrat	1980
Nevis	1984
St. Kitts	1993
St. Lucia	2000
St. Vincent & the Grenadines	1982

## Contribution of the Offshore Sector to the Development of the OECS

Over the years, the offshore financial services sector has become increasingly important to the economies of the OECS and to their citizens and accounts for an increasingly substantial proportion of their economies. The sector has generated foreign exchange earnings, which is vital to the economies. Furthermore, the sector has contributed to government revenues and to the overall Gross Domestic Production (GDP). The sector provides “the means for enabling economic diversification and provides an alternative to national revenue generation.”<sup>7</sup>

The sector has proven to be a harmonious marriage with the high-end tourism product of these nations. It has conferred several direct and indirect benefits on the economies of the islands and provided a credible means of development for little islands that have little appreciable natural resources for growth and diversification.

### Direct Revenue

Direct benefits accrue to the OECS governments in the form of revenues derived from registration of companies, renewals, licenses and other fees. This results in a sizable direct contribution from the offshore sector. In some of the OECS countries, such as the British Virgin Islands and to a much lesser extent, Nevis, Grenada, St. Vincent & The Grenadines and Anguilla, the sector currently accounts for a significant portion of government’s recurrent revenues. In the British Virgin Islands, the contribution is over 50% of the Government’s recurrent revenues and in Nevis, this amount is approximately 15%.

### Indirect Contribution

At the same time, the local economies are bolstered from expenditure on goods and services, the rental of office space and residential accommodation as well as the spin-off effects to other sectors of the economy such as tourism, construction, communications, technology and the wider financial arena. Furthermore, the sector has provided jobs that are so necessary to the social, economic and fiscal well-being of the islands and to their citizens. For example, in Nevis, the indirect contribution is approximately 30%. Consequently, any decline in the offshore financial services sector would threaten the very fabric of some of these small island states.

Despite the current realities, the question of whether the international financial services sector can provide a viable mode of sustainable development for these small island economies remains in doubt. This uncertainty stems from the myriad of challenges that continues to face the small emerging nations of the OECS.

## Challenges to the International Financial Services Sectors

The events of the recent past, namely, the difficulties presented by globalization, the world economic recession, the terrorist attacks of September 11, 2001 on the United States of America, followed by the other attacks in the global arena, as does the continuing threat of global conflicts and compounded by the other developmental realities have presented ongoing challenges to governments, economies, businesses and private sector practitioners of the OECS region.

The nations of the OECS have also been hampered by the challenges posed by the unilateral actions taken by the developed nations. These challenges first started in March 2000 when the Financial Stability Forum categorized all offshore jurisdictions in three categories, with most nations in the Caribbean being placed in the category of lacking in supervision of their financial institutions. This was followed by the Financial Action Task Force (FATF) blacklist in June of 2000 and by the Organisation for Economic Cooperation and Development (OECD) blacklist of a number of jurisdictions in the same month.

The FATF, composed of 29 developed nations<sup>8</sup> stated that the 15 listed countries, including 5 in the Caribbean<sup>9</sup> were not doing enough in the fight against money laundering.

The OECD, composed of 30 developed nations<sup>10</sup> also published a list of 35 countries, including 15 in the Caribbean, and accused them of being tax havens with preferential regimes that are harmful to tax competition.<sup>11</sup> The initiatives of the OECD were motivated by worries that offshore financial centers were, by trying to entice multinational companies, depriving other countries of tax revenue. The OECD threatened to impose sanctions against the listed offshore centers unless they agreed to cooperate with them and make specified changes to their tax regimes and policies.

These listings were further compounded by various financial advisories from the United States Treasury, the United Kingdom, Canada and other countries, where persons and institutions were advised to carefully scrutinize all financial transactions emanating from or routed through the listed countries. This led to some of the banking institutions in these listed countries losing or facing the possibility of losing their correspondent banking relationships with banks in developed countries and posed a severe threat to the stability of the entire financial system of the OECS region.

The listings also led to several monetary authorities sending out advisories to their banking institutions to exercise caution and conduct extensive due diligence on companies incorporated in the listed jurisdictions. These advisories required that intermediaries undertake extensive due diligence. This resulted in greater costs to the intermediaries hence loss of lucrative business to the listed jurisdictions.

To date, all of the OECS jurisdictions have been removed from the FATF and OECD lists. Table 2 shows the FATF de-listings of the OECS countries and other Caribbean countries from its non-cooperative countries and territories in the fight against money laundering. This occurred following numerous face-to-face meetings<sup>12</sup> and the enactment of anti-money laundering legislation; the establishment of independent Financial Services Commissions to regulate the industry; the creation of Financial Intelligence Units within the Police Force to investigate money laundering and other financial crimes, the amendment of their existing legislation to promote transparency and a host of other measures.

TABLE 2: REMOVAL OF CARIBBEAN COUNTRIES FROM FATF'S LIST

The Bahamas	June 2001
The Cayman Islands	June 2001
Dominica	October 2002
Grenada	February 2003
St. Kitts & Nevis	June 2002
St. Vincent & the Grenadines	June 2003

The OECD removals of the OECS countries from its list of un-cooperative tax havens were undertaken after the respective OECS countries made commitments to improve transparency and effective exchange of

information in tax matters.<sup>13</sup> The countries also agreed to participate in the OECD Global Forum to develop standards that are applicable to all in the global arena.<sup>14</sup>

Notwithstanding the removals from the FATF & OECD lists, the economies suffered and the scars to the economies remain. The listed OECS nations experienced significant declines in the registration of companies and other entities due to the fact that these nations became less competitive than other Onshore and Offshore Centers that were not listed and hence were not required to implement the onerous compliance requirements forced on by the OECD. These attacks posed severe challenges to the economies of the OECS nations and threatened the very existence of the industry that had been so critical to the well-being and the very livelihood of the citizens of the OECS region.

It may be noted that the removals from the negative lists constituted an added attraction to businesses by strengthening the view that the countries of the OECS are viable and reputable financial services centers. Due to the more stringent requirements and regulations, individuals and multinational corporations can now have greater assurance and confidence in their investments in these countries. Furthermore, since the provision of international financial services is the livelihood of many of these offshore jurisdictions and are needed for the well-being of their citizens, these countries tend to be very careful with the way they conduct business.

## **The Way Forward for the OECS Nations**

It is apparent that the challenges posed by globalization as well as those resulting from actions of the developed nations have severely hampered the development of the international financial services sector in a number of OECS jurisdictions. This is evident in the case of Dominica and Montserrat where the sectors no longer contributes in any significant manner to Government's revenues. In addition, St. Lucia, the last OECS jurisdiction to enact legislation for the provision of offshore financial services, does not seem to have gotten off the ground. However, in the case of the British Virgin Islands and to a lesser extent, Nevis, Grenada, St. Vincent & the Grenadines and Anguilla, it appears as if the international financial service sector has the potential to provide a credible vehicle for development. It must be noted though that as a result of the numerous pressures and challenges and the increased cost of doing business in the offshore financial services sector, that the opportunities for significant growth is limited. It is therefore imperative that the nations of the OECS aggressively undertake initiatives and programs to explore other opportunities for diversification so as to guard against the threats and to ensure the long-term sustainability of their economies.

Notwithstanding these factors, it is clear that the international financial services sector has the potential to provide a limited avenue for continued development of the OECS nations. However, great care must be taken to develop and implement measures and strategies to guarantee success. Several recommendations are delineated in the next section.

## **General Recommendations for the Development of the OECS via International (Offshore) Financial Services**

### **Develop Strategies to Enhance Economic Progress**

The collective threats posed by the onerous regulatory standards that have been implemented and the passage of other initiatives, such as the US Patriot Act,<sup>15</sup> suggest that it is even more essential that the countries of the OECS enact sound, long-term strategies to protect and further enhance the economic progress that they have made over the recent years. With this in mind, each of these countries must pursue a diversification strategy which is focused on consolidating, stimulating and modernizing their traditional economic sectors of tourism, international financial services and to a lesser extent, agriculture while creating new areas of growth which would allow the islands to embark on higher levels of development and lay the groundwork for sustainable advancement in the various economic sectors. It is imperative that proactive as opposed to reactive strategies be implemented in order for these nations to respond dynamically to the challenges that will ensure their survival.

**Respond Dynamically to Change**

The financial services industry is under-going a process of change. The international markets are extremely volatile and several large multinational corporations are facing bankruptcy. This situation is aggravated by the state of the world economy, the war in Iraq, and the increasing threat of international terrorism. Some governments have responded by introducing burdensome regulations on banks and other financial institutions in an effort to fight money laundering and other financial crimes. These developments have seriously threatened the future viability of some businesses and offshore centers like those in the OECS region.

Furthermore, although the island states of the OECS are small in size, they must realize that size is not a factor in the provision of the offshore financial services. With the advancement in technology, borders are now broken down and small countries now have to compete directly with centers in the developed countries. This trend requires that both Governments and the private sectors plan more effectively, search for new opportunities, carefully assess risk, and adjust to change.

**Enhance the Infrastructure**

It is also imperative that the Governments of the respective OECS countries implement the necessary infrastructure to establish themselves as successful, modern and diversified economies that are resilient enough to withstand any negative impact from external forces.

**Educate the Citizens and Practitioners**

Of priority to the Governments of the OECS must be the investment in the education of their citizens in order to ensure a well-skilled workforce and a generous supply of highly intelligent people who are dedicated to the continued success of their countries. In addition, this focus on education will serve to better prepare the practitioners for meeting the needs of a very dynamic international financial services industry. To assist in achieving this goal, it is necessary for the OECS Governments to work with established local, regional and international institutions and organizations that are vibrant and dynamic and can provide education, information and networking to its members and interested persons.

**Renew Commitment to a Proper Regulatory Regime**

The Governments of the OECS countries must jealously guard their reputation and demonstrate their serious commitments to the development of reputable international financial services sectors. Consequently, extensive due diligence and other measures must be undertaken to ensure that only persons with the highest degree of integrity are permitted to conduct business activity on the islands.

**Collaborate with the Private Sector**

It must be recognized that service providers and individual managers also have a critical role to play in improving the quality and reputation of the jurisdictions, since they are the ones who interact with the clients. Hence, it is the reliability and efficiency of that relationship between the service providers and the clients that will determine whether or not the clients decide to utilize the services offered by the jurisdictions of the OECS. It is therefore important that the Service providers in each jurisdiction be encouraged by the Governments to provide high quality and efficient service to their clients. In addition, it must also be recognized that it is extremely important that all relevant persons, financial institutions and government authorities be properly familiar, trained and updated on the workings of the financial service systems and the measures that need to be undertaken to ensure that only reputable operators are permitted to operate on their islands.

**Maintain Competitive Advantages**

It must also be recognized that in order to remain competitive in this industry, the OECS nations will have to develop new products to complement what already exists. These countries must therefore seek the advice of relevant and committed experts along with input from service providers to draft high quality and user-friendly legislation for new and innovative products. In addition, amendments must also be made to existing legislation with the objective of targeting niche markets. Moreover, the OECS countries must ensure that they comply with international best practices.

**Develop Collaborative Approaches**

It is necessary for small island states like those in the OECS to share in the benefits of globalization. This is necessary in order to ensure a peaceful coexistence among the large and small nations of the world and to enhance the preservation of democracy. This objective will only be achieved through the process of inclusion and

constructive dialogue between the small and large nations. The larger developed countries should be encouraged to refrain from unilateral actions and policies that hinder the development and progress of the smaller jurisdictions. It is therefore essential that the Governments of the OECS nations appeal to the larger nations to adopt the principles of mutual cooperation and understanding and seek to work together for the common good of all mankind.

To this end, the nations of the OECS must collaborate with local, regional and international organizations and bodies as well as larger countries to undertake initiatives that will be of mutual benefit.

#### **Maintain a Healthy Macroeconomic Environment**

Finally, it is imperative for the countries of the OECS maintain the requisite macroeconomic environment and continue to pursue investments in human, physical and institutional capital that would enable their citizens to fully exploit their potential in the global economy.

## **Conclusion**

All of the OECS countries have pursued the development of the international financial services sector as a means of further integrating into the global economy. To this end, they are attempting to differentiate themselves and develop competitive advantages by implementing unique offshore financial sector products or frameworks. Despite the many challenges faced by these small island economies from economic shocks, natural disasters, disadvantages due to size, mounting debt burdens combined with the added pressure from the developed countries and the demands resulting from globalization, it is apparent that the financial service sector constitute the potential for a limited but important tool for diversification and long term development of the OECS economies. Notwithstanding this reality, the OECS countries must however be mindful that other avenues of diversification must be explored in order to ensure long term economic development and sustainability. It will be a monumental mission to ensure success, nevertheless, the countries of the OECS must recognize that they cannot be overwhelmed by the magnitude of the task that lay ahead of them, but must be mindful of the fact that they can seek to turn challenges into opportunities and look to the future with confidence as they enact measures to ensure short and long-term growth and sustainable economic development of their countries.

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## End Notes

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<sup>1</sup> The Organisation of Eastern Caribbean States (OECS) established in 1981, brings together seven member states and two associates in the Leeward and Windward Islands. The members are Antigua & Barbuda, Dominica, Grenada, Montserrat, St. Kitts & Nevis, Saint Lucia & St. Vincent & the Grenadines while Anguilla and the British Virgin Islands are associate members. Six of the island nation states enjoy full political independence, with the Federation of St. Kitts and Nevis are recognized as one country but with two separate financial service jurisdictions, while Anguilla, the BVI and Montserrat are United Kingdom Overseas Territories. The OECS Secretariat is located in Castries, St. Lucia.

<sup>2</sup> Economic Survey of the Caribbean, 2003-2004 by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) quoted in Caribbean Life Newspaper, Courier-Life Publications, In. Brooklyn, NY. October 19, 2004.

<sup>3</sup> Zaragoza, Jose, The Canadian Foundation for the Americas (FOCAL). The Canadian Foundation for the Americas (FOCAL). Established in 1990, FOCAL is a non-governmental organization that fosters informed and timely debate and dialogue on issues of importance to decision makers and leaders in Canada and the Western Hemisphere.

<sup>4</sup> Bardouille, Nand, The Offshore Services Industry in the Caribbean: A Conceptual and Sub-Regional Analysis. International Journal of Islamic Financial Services, Vol 2. No. 3.

<sup>5</sup> Despite its significant size, the offshore financial services sector is an area that still remains one of the least understood in the field of international finance.

<sup>6</sup> The BVI is in a league of its own. It is the most popular jurisdiction in the world for International Business Companies (IBCs), with over 500,000 currently registered, and over 50,000 incorporated in 2003 alone. Further, it has numerous international banks and is considered the 5<sup>th</sup> largest captive insurance jurisdiction in the world. The BVI is also considered one of the most prosperous jurisdictions in the Caribbean area. The major reason for this phenomenon is its status as a British Overseas Territory and the only territory to have been given responsibility for managing its own financial services industry.

<sup>7</sup> Jeffers-Gooden, Agatha, International Financial Centres Yearbook, Euromoney Publications, 2004.

<sup>8</sup> The member countries and governments of the FATF are Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, China, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, The Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. It also includes two international organizations, namely: the European Commission and the Gulf Cooperation Council.

<sup>9</sup> These countries were Bahamas, The Cayman Islands, The Commonwealth of Dominica, The Federation of St. Christopher (St. Kitts) & Nevis, St. Vincent & the Grenadines. Grenada was subsequently added to the FATF list in 2001.

<sup>10</sup> The members of the OECD are Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. In addition, the Commission of the European Communities is a participant.

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<sup>11</sup> The OECD initially identified the following countries as tax havens: Andorra, Anguilla, Antigua & Barbuda, Aruba, Commonwealth of Bahamas, the Kingdom of Bahrain, Barbados, Belize, British Virgin Islands, Cook Islands, the Commonwealth of Dominica, Gibraltar, Grenada, Guernsey/Sark/Alderney, Isle of Man, Jersey, Liberia, The Principality of Liechtenstein, the Republic of the Maldives, the Republic of the Marshall Islands, The Principality of Monaco, Montserrat, the Republic of Nauru, Netherlands Antilles, Niue, Panama, Samoa, The Republic of the Seychelles, St. Lucia, The Federation of St. Christopher & Nevis, St. Vincent & the Grenadines, Tonga, Turks & Caicos, U.S. Virgin Islands, and the Republic of Vanuatu.

<sup>12</sup> The author represented The Federation of St. Kitts and Nevis in negotiations and other initiatives with both the FATF and OECD nations and which resulted in the twin-island Federation being removed from the negative lists.

<sup>13</sup> These committed jurisdictions are referred to as non-OECD participating partners.

<sup>14</sup> The OECD countries working with the participating partners within the Global Forum on Taxation developed international standards for transparency and effective exchange of information in tax matters. A sub-group developed the Model Agreement on Exchange of Information on Tax Matters. In addition, the Joint Ad Hoc Group on Accounts is still working to develop standards for the transparency requirements as they relate to Accounting.

<sup>15</sup> The Patriot Act, a USA legislative bill was signed into law on October 26, 2001. Enacted in response to the September 11, 2001 Terrorists Attacks, the Act imposes stringent requirements on how financial organizations screen existing customers and process new customer information.

# **Sustainability of E-governance Projects -The Indian Experience**

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## **Abstract**

Using Information and Communication Technology (ICT) for supposedly enabling more efficient government, particularly in the area of offering services to the citizens, has become the order of the day, all over the world. How many of them actually, result in providing meaningful value to the beneficiaries is a concern. It is also noticed that plenty of hype is often created over an e-governance project when it is first implemented; but, shortly thereafter the initiative fades out into oblivion. Even in cases where they don't fade, it is noticed that they fail to achieve the original objectives with which they were initiated. This may be true all over the world but this paper tries to address the problems of sustenance of e-governance in the Indian environment. It uses case studies available in literature and based on the author's own experiences to understand what results in sustainability and whether a meaningful framework can be suggested that make e-governance more sustainable, in the Indian context.

## **Introduction**

E-governance projects are launched with great fanfare and, often, with greater belief in its capabilities. In India, in particular, employing ICT (Information and Communication Technology) in government functioning, especially where it is related to interaction with the public, has been driven with a "me too" surge.[6] The expected benefits are highlighted and recorded as a success, once the system begins working without any technological flaw.

In the year 2000, the Stockholm award on e-governance in a developing country was awarded to an initiative undertaken in a remote rural district of Dhar in the state of Madhya Pradesh. This ICT deployment was christened Gyandoot (meaning, messenger of knowledge).

Using dial-up telephone network, this project was able to connect personal computers to the Internet through which a host of services, desired by the villagers, were offered. These PCs were installed in kiosks, run by semiliterate villagers, also created a new form of business for them. The kind of services it offered is as follows:

1. Birth & death certificates.
2. Complaints requiring maintenance of agricultural pump sets.
3. Complaints about non-receipt of pension money.
4. Market prices of seeds and agricultural produce.
5. Advice on fertilizing and pest control.
6. Platform to advertise or communicate about offers and requests.

In addition, the kiosk owners could offer any computing services like training in programming, word processing and printing, etc.

The charges varied anywhere from Rs. 5/- to Rs. 15/- depending on the service requested.

The box below, gives a brief glimpse of things that happen through Gyandoot:[6]

***“A complaint costing Rs. 10 made available drinking water to a tribal hamlet of 39 households:***

*A small hamlet of village Mafipura, named Baidi Awar has only one hand pump for clean drinking water for 39 households. The hand pump was out of order for six months and villagers were fetching their drinking water from over 2-km distance. The villagers lodged complaint to the concerned department officials and were not responded properly. One villager named Ramesh Gobaria went to nearby Soochanalaya to lodge a complaint. Initially he was very sceptical about the payment of Rs.10 for sending a complaint, as he was not sure that the complaint would be properly attended to. To the surprise of the villagers, a hand pump mechanic reached the hamlet within two days of filing the complaint at Soochanalayas and he repaired the hand pump within three hours.*

*The incidence built the confidence level of the villagers and they become habitual of using Gyandoot services.*

***“A cow for rupees three thousands:***

*This is the first real e-commerce transaction in the rural area of the tribal district. Kalsingh of village Mirjapur wanted to sell his cow. He registered at Soochanalaya of nearby Gunavad village to put up his offer of the animal on-line. He received four trade enquiries on his account and he finally sold his cow to the highest bidder Premnarayan of village Dilawara.*

*The auction facility of the Gyandoot enables trading of commodities like milch animals, cultivable land, tractors, agricultural tools etc, creating virtual market place to benefit villagers from expanded horizons and increased competitiveness. The facility has really done its job in providing true market to the villagers of the tribal hinterland and benefited them economically. The service is becoming very popular making the virtual market place deeper and wider.*

***“256 milch animals vaccinated in one day:***

*Hiralal sent an e-mail from Gunavad Soochanalaya that an epidemic has broke out amongst the milch cattle of the village Kot Bhidota. A vetenary rescue team was despatched on the same day by the district head of the veterinary department. The team was informed that there was no death due to the epidemic. The disease of haemorrhage septicaemia was detected. The team promptly started curative treatment and vaccinated the rest of the animals against the disease. They also made search and survey operation in the neighbouring villages for detection of any disease symptoms and did preventive vaccination.*

*Tivradoot facility of the Gyandoot caters to natural calamities and epidemics providing instant information to the right government functionary. An instant relief and preventive measures are possible due to timely availability of information.”*

It was no wonder that this created quite an excitement and was flaunted with great enthusiasm as an example of India's successful inroads into e-governance and in taking ICT to the rural masses.

One can imagine the amount of groundwork that was required before launching this service. It was all done with tremendous sense of commitment by the then district collector and his team.

This team, in fact, became advisors to other state governments, offering consulting services in implementing a similar programme.

In 2005, “Gyandoot” is a very small fraction of what it was, even though some additional investments in the form of technology were made. It is only in the record books can one refer to the glory that was Gyandoot. The then district collector was transferred and he later on took up independent studies on e-governance, and the subsequent administrators took minimum interest in building Gyandoot further. Initial funding for the infrastructure and project work came from international funding agencies and the fund for sustenance, to be given by the state government, has been less than required.

The story of Gyandoot is not unique. Such projects taken up the government seem to all achieve a peak popularity status and then slide down into total decay or a run of the mill “government” activity providing no particular value.

## Some More Cases

Around the same time, the government of Andhra Pradesh introduced what was purported to be a flagship e-governance venture, Computer-aided Administration of Registration Department, or CARD.

**CARD** is a catchy name given to the comprehensive project of computerizing one of the oldest wings of the Government "The Registration & Stamps Department". The project was originally conceived in August 1996 and implemented at two test sites in August / September 1997. Judging the project by its initial success and the immense potential it has in transforming the concept of public service, the Government decided to replicate it all over the state. Thus began an intensive and dedicated effort, which is now the watchword of the Department...**CARD**.

This project also enjoyed high publicity and a shower accolades. Much was made of it, the manner in which the whole process of land registration was made transparent giving little scope for skullduggery. The system was deployed in several sub-district level zones and seemed a clear winner for the cause of Information Technology in contributing to good governance.

The success of this contributed to the officer, who managed this project, to be subsequently appointed as the Secretary of Information Technology of his state. According to his own statement, in a new journal, later, CARD was not doing all that it was expected to do because of many officers at the stations subverting the system in their varied interests.

CARD exists today, only as archival project, and one wonders to what extent it is being used for land registration.

Computerization of Check posts in Gujarat received plenty of hype. This system enabled freight trucks to complete the formalities at the border check posts without having to wait very long. For the regulatory authorities, it meant the ability to verify documents more accurately and thus to ensure that freight carriers declared their goods honestly and paid correct taxes. It was declared that the collection of taxes because of this more than paid up for the investment in technology in just one year.

The system consisted of scanners, electronic weigh bridges, video monitoring, computers and trade databases, etc. Contract personnel carried out some of the manual operations.

We are told that the same enthusiasm does not exist today as it did in the year of its inception. The governmental authorities and freight carriers have been successful in exploiting the loopholes of the system in collecting bribes and evading taxes, respectively.

One can quote several such examples from the Indian scenario. An e-governance initiative is launched with much fanfare, newspaper articles are written about them; some even get a World Bank report written about them. After a year or two, they seem to go underground and the sustenance and growth expected never happen.

A classic case is that of "Mukhya Vahini", introduced in Karnataka state. The objective of this was to monitor the smooth deployment of all projects invested in by Global players, right from the chief minister's office. It was slated to subsequently grow into a full-blown portal for all departments of the State.

The government even published a handbook with complete details about the project. The objective stated in the brochure goes as follows:

### **"OBJECTIVES**

- Improved information availability both in terms of quality and timeliness.
- Strengthening, modernizing and speeding the existing information systems of the departments
- Improved response to citizens' petitions, representatives' request and information needs
- More focused review of the departments

The hope is that this project will act as a catalyst to improve the information systems in the government."[3].

The system passed its pilot stage and was to have been deployed in full. The officer in charge was transferred to a different department and the next incumbent took charge of the project though the progress slowed down. However, shortly thereafter, a new post called, "Secretary, E-governance" was created in the State the incumbent of which would be responsible for all E-governance projects in the state. These projects were the responsibility of the department of Information Technology, earlier.

The new secretary of e-governance became interested in identifying and promoting new projects, blatantly ignoring projects initiated by the earlier regime.

The chief minister's secretariat made some weak attempts to support and pursue "Mukhya Vahini" but let it slip into the back burner due to lack of organizational competence and passion to pursue it.

One reason for poor sustainability of e-governance emerges directly from the experience of this case: absence of the champion! Another reason that is clearly implied is political games that are a part of governmental processes and structures.

## **Sustainability**

Mckenny [10] refers to a Maestro who understands the languages of both the business as well as technology and whose presence is essential for the success of any Information Technology initiative. The champion is equivalent to the Maestro because, in most cases (and all of them cited above), the officer who champions a particular ICT intervention in government also happens to be reasonably familiar with information technology. Once he or she is transferred or moved out of position, the e-governance initiative suffers unless the new incumbent is equally passionate about the same project. This does not happen and this is where the political factor comes into play. This kind of political power play, often played at a very subtle level, is a factor for success or failure of any IS implementation.

This particular case is quite similar to that of the Financial Information Systems at Golden triangle Corporation, described by Lynne Markus in his paper, "Power, Politics and MIS Implementation", where the person chosen to head the corporate controller's office, in the restructured organization, turned out to be an old rival of the head controller of the chemical company divisions, which got subjugated to a new corporate entity on account of mergers (with the latter actually having hired the former several years ago).[9]. It is not surprising that the system met with implicit but very strong resistance from the division.

Thus, at least two factors seem obvious for the sustainability of e-governance: the continuity of the maestro and a non-destructive political climate. Not only is this demonstrated by the cases above but are also supported by Information Systems theory.

Bhoomi (meaning earth) is an e-governance implementation in the state of Karnataka, again, which has received global attention. It is an ICT implementation that has made the entire process of registering one's land holding, mutation, sale, etc., into a paperless one. It has not only resulted in very high reduction in transaction time but also deters tampering of land records. It has minimized possibility of corruption through disintermediation.

The utility and the economic worth of the Bhoomi may be questioned, but the fact that it has sustained the hype created over it and has remained a steady example of e-governance over a period of as long as eight years, is because the officer who 'championed' this project continues to be in this position for eight years without being transferred to a different post— the normal tenure of any officer in position being 3 years. Thus, enough time was given for this initiative to take root and also see it through its phase of consolidation, through one leader. It is assumed that even if he were to be moved out now, enough systems have come into place for Bhoomi to continue without failing.

The implementation of any MIS has deep rooted problems - resistance by various forces being the major one. When it comes to e-governance, this issue becomes graver since, more often than not, a particular implementation depends on the assumption that all actors that interact with the system are rational and that the initiator and managers of the system can objectively determine what is of value to these actors. Any mismatch results in resistance. [5]

Any technology based solution requires change in existing processes and, in the governmental structure where existing processes have evolved over long periods, through socio-political patronage, required changes are bound to meet with resistance. So the moment the pressure of novelty and hype are withdrawn, the system has a tendency to collapse.

The often cited case of the Washington Licensing Department, illustrates how both these issues were addressed:[2 ]

The “champion” demonstrated considerable leadership skill in pushing the project in spite of all odds and bought away any future resistance in ensuring a “win- win” situation for all the actors.

This takes me to the next theory, that of Barry Boehm, called, “ Theory W”. The essence of this theory is that unless a software product is built around the “Win” requirements of all the stakeholders, the chances of its failure is very high.[1].

A good example of this is the classic case of software runaways, namely, the automated, integrated baggage conveyor system at the Denver International Airport. In spite of the experience and technical expertise of BAE, the contractor of this system, it became a scandalous failure because, among other things, it failed to take note of the Denver mayor’s win requirement, which was to show case this system during his reelection campaign.

We can already note that there are enough theories of IS that can be applied to e-governance initiatives in assessing their sustainability.

In the Indian scene, the reasons for non-sustainability of e-governance can be over simplified to the fact of non- continuity of the officers during the initiation of the project and the political environment not being supportive enough. It is actually far more complicated, however, and very difficult to analyze.

Oftentimes, what appears to have sustained itself over a period of time may only be artificially so. Either that the whole truth is not known or that it is kept alive by regulatory measures – like life sustaining apparatus.

## **E-seva**

Take the example of a high profile e-governance initiative of the government of the state of Andhra Pradesh, called e-Seva (seva means, help). Originally, implemented to serve citizens only of the capital, its aim was to provide a “single-window” facility for payment of utility bills, like electricity, water, telephone, etc.

The system is based on heavy 3-layer architecture, connected through ISDN lines, where the payment windows are privately owned kiosks. The infrastructure is owned by the government. The kiosk owners are required to pay a percentage of their revenue to the government. As mentioned earlier, the system was deployed only in the capital city with the contention that it will be expanded to cover all the other districts of the state by the year 2000.

One did not see any promised expansion even by 2004. Only then did some extensions take place but not exactly the way it was visualized. The expensive architecture became too inflexible to be extended and so the only expansion that took place was to a neighboring district.

The issue of sustainability is whether this system would have survived without the government compelling the citizens to make their utility bill payments through these kiosks, by barring all alternative means of payment? Could the citizens be given the option to choose the method that they found cost effective to them?

Probably as a means of moral justification, e-seva, was shortly promoted, not just as a utility payment gateway but as a portal for general citizen services of what has been categorized as GtoC (government to citizen) and BtoC (business to citizen) services. It is not clear how much of these services are used, or even actually activated.

The irony of it is that these agenda would clash with that of the portal of Andhra Pradesh, called, AP online, which was originally and still intended to offer all citizen services. This appeared to have originally been very similar to what was Ukgovonline, of United Kingdom (now, “direct.gov.uk). So, this duplication is seemingly an ad hoc requirement of the system, introduced only to sustain e-seva.

A privately set up internet access in the rural areas, in Tamil Nadu state seems to be doing great business by offering services to villagers through private entrepreneurs. [4] While the kiosk owners seemed quite happy with the situation, one of the functions that they said was in great demand was to be able to pay their utility bills through these kiosks instead of having commute to the district headquarters every time. This service is not available to this private network. In fact, such services make more sense for the remote rural areas than for urban metropolis that e-seva serves.

As Hirscheim and Klein point out, there are several explicit and implicit assumptions upon which information systems design are based and each of them is likely to result in a different set of solutions [5]. To arrive at a proper solution and, hence a sustained solution, these assumptions should be close to reality.

A peep into the some of the assumptions on which e-seva was built – as shown in the box below indicates the strong corporate business orientation that was followed in designing its architecture.

### III. Principles

Principle 1: Business needs should have priority when making systems management decisions.

- System management must facilitate the business process. Business unit needs should play a primary role when identifying requirements and selecting technology and applications. Business units are assuming a larger role in driving technology selection and its application.
- Whenever a business need conflicts with a systems management need, the business need must take priority.
- Business units should have as much autonomy as possible to select applications that meet their needs. As long as the business functionality justifies the cost and the business unit is willing to pay the price, then the selected application is acceptable. Support costs should be considered by the business unit.
- To support business processes, systems management must focus on increasing system stability and availability while reducing costs. It can achieve these goals by setting standards, establishing guidelines and centralizing systems management functions along business functional lines.
- Centralization/standardization should occur within a business function. However, a single standard does not apply to all lines of business. For example, all operators using the same system should have a minimum standard hardware and software configuration to meet their needs. Operators using other systems may require different tool sets to meet the needs of their unique business applications. Configurations can be different, however all configurations can be based on the same architectural components.

This is ideal and, one presumes, a strong wish list of the decision makers. But the reality may be far from this. This is a socio-political situation and one cannot go only by a single presumed premise that serving the citizens by the government runs on the same lines of corporate business.

Jenson Hoff analyzes very well the relationship between the use of ICT and the citizen in his paper on a Theory of Democracy for the Information Age. [8]

Information Systems theory, again talks about secondary users as an imperative for robust systems. It applies to e-governance projects as well.

There are primary beneficiaries that the system addresses first, but then, it should be designed to penetrate its value to the secondary (even tertiary levels) too. [11]

For example, in the Bhoomi initiative discussed above, the primary target consists of the citizens who have to transact a land deal and obtained certificates related to their landholding, etc.

Financial institutions that may be approached by a landholder for loans against the land become the secondary beneficiary. The systems cater to them to the extent that its information gains credibility among them in terms of authenticity and security. Its value gets enhanced when the secondary beneficiary is drawn into the system by giving them direct access to its use.

The privately managed service of Nlogue , while it offers a variety of services to a villager, has also roped into several partners into offering a value system to the user. To quote from its experience:

“It is possible to deploy ICT for the development of the rural masses in ways that are economically viable, and hence, sustainable.

Private parties should be encouraged to take up such initiatives.

Services should be based on user needs and not government priorities – the services should sell themselves to the villagers.

Finally – the most important factor – required services should be co-opted into partnership. The current problem of all government initiated “e-governance” services is that they are department centric rather than service centric. [7]

This looks at yet another factor leading to sustainability of e-governance.

The e-governance initiative of India that has not only stood its test of time but has also made a tremendous change in the way that the citizens have benefited from it is the online railway reservation system.

The Indian railway is owned by the government and covers a network of nearly 109,000 kilometers, with 11,000 trains carrying 7,000 passengers in a day.

The passengers used to be put into enormous inconvenience whenever their travel involved transitions at different points. At best they could pay for telegraphic messages to these transit stations to reserve their seats, which were rarely honored, or look for some known person out there who would book their tickets for onward journeys. Even where the journey was a direct point to point one, the passengers would have stand in long lines only to be at the mercy of the ticketing agent to give them a reservation. More often than not the agents exploited the system and indulged in high skullduggery.

With the online reservation system, a passenger can book for any combination of routes from any station. This kind of convenience was not even dreamt of by citizens whose expectation from government offered services have always been low.

This system has extended itself through levels of users making so robust that it no more depends on a champion or patronage of the government through benign budget sanctions.

## **Conclusion**

So, what is the framework by which one can assess whether an e-governance initiative will be sustainable or not?

One thing that is certain is that if an initiative is the pet peeve of a single person only and that the person is transferable, the chances of its survival is very poor. However, for any successful implementation, a Maestro is required but more in the form of continuous concept than an ephemeral individual.

The tragedy of “Mukhya Vahini” clearly shows that an e-governance project should receive the backing of the political structure. Otherwise, it is likely to get subsumed by the political interests of the actors.

The third point is that the requirements of the e-governance initiative itself should be derived from the win requirements of all the actors, mainly the beneficiaries of the system.

Thus, we have a three dimensional measure for the sustainability of e-governance. A balanced approach along these dimensions is a must.

These three dimensions are the minimum requirements for sustainability. If it fails on any of them, there will be no need for further analysis, because beyond, this it becomes a very complex issue.

All the theories related to successful, robust, information systems, in general are equally applicable here. Long-term sustainability, for instance, cannot happen unless the system extends itself beyond its primary services to secondary and tertiary levels. The general theories of IS sustainability essentially, refer to penetration, impact, participation and effectiveness of the implementation.

Fundamentally, almost all the e-governance initiatives are based on the assumptions of what the citizen’s priorities are. In reality they may be entirely different. The example of providing for utility payments inside a modern city is a case in point: alternate channels are available to the urban elite, like credit card companies and banks. On the other hand, as has been pointed out, this service is not made available in remote rural areas where the requirement is felt more intensely.

In fact, one can perceive the presence of strong political motives behind the e-governance projects in India. They become the source of publicity, strength and future career growth for the officers concerned. Consequently, only those projects are taken up that attract media attention, glamorizes the protagonists as patrons of high technology and provides them an artificial sense of achievement. On the other hand, as the railway reservation

system shows, true sustenance is achieved by addressing a social need that enhances the quality of life radically. Most of the projects discussed, as can be seen, on the other hand, deal with marginal changes with low penetration. Such systems, however economical and technologically advanced it might be, are unlikely to be sustainable (except through life support systems provided by the government, like in the case of e-seva).

Thus, behind those minimum requirements for sustenance, stated above, the discussion on sustainability becomes very complex. From available literature, this seems to be true for all places and not just to India.

It also appears that these projects' definitions get embroiled in technology sophistry rather than social realities.

This takes me to the real issue of sustainability of e-governance – it has very little to do with technology or skills of project management. The true paradigms of sustenance should actually be provided in the political and social domain. It is audacious to treat it as much simplicity as has been attempted here.

All the discussions that I have seen about success and failures of e-governance in India are about what functions can be provided and what technology is best to use. None of them ask about what kind organizational structures are to be considered and how to assess true requirement as a solution to a quality of life problem.

To achieve sustainable e-governance programmes, the initiators and implementers should first give up their cavalier approach towards it.

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# Looking Back to the Future: Hai'er, Lenovo and SAIC in Historical Context

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## Abstract

Chinese corporations such as Hai'er, Lenovo and Shanghai Automotive Industry Corporation, have captured much attention recently for what appears to be an unprecedented rapid surge into world markets. For many years China has been seen as the factory of the world, but now we are seeing Chinese corporations, and their brands, taking a position in the global economy that outstrips Japan's expansion in the 1960s and 1970s. This paper locates that Chinese expansion within the context of the historical importance of China, and Asia, in the global economy and its resurgence from the late 20<sup>th</sup> century.

## Introduction

Chinese corporations such as Hai'er, Lenovo and Shanghai Automotive Industry Corporation, have captured much attention recently for what appears to be an unprecedented rapid surge into world markets. For many years China has been seen as the factory of the world, but now we are seeing Chinese corporations, and their brands, taking a position in the global economy that outstrips Japan's expansion in the 1960s and 1970s. This surge has been staggering, because few people other than China specialists, and the Chinese themselves, had heard of these corporations even a few years ago. Now it is widely predicted that a growing number of such corporations will become household names before long [18]. The Chinese, as the Japanese and South Koreans before them, they have entered world markets in basically two ways. One is as low-end producers of labor-intensive products, especially textiles, a pattern which had been set originally by Britain in the 18<sup>th</sup> and 19<sup>th</sup> centuries [3]. The other method was to establish a reputation as an Original Equipment Manufacturer (OEM). This has acquired various meanings over the years but is used here in the sense of a company which manufactures either components or whole products which are sold under another brand name. This again was the route by which Japan and other countries which had developed a comparative advantage in manufacturing, with an appropriate, but constantly evolving mix of quality product at relatively low cost, but which lacked the marketing expertise and power in target countries entered advanced markets [13]. This continues to be a mainstay of Chinese exports, and is likely to remain so for some time [34]. However, something new is happening.

Firstly, Chinese corporations are acquiring parts, or the whole, of prestigious Western companies. These are not hostile take-overs, so far, but usually a result of the Western company looking for a foreign bail-out. The two major instances of this currently are Lenovo's purchase of IBM's PC division, and the projected entry of Shanghai Automotive Industry Corporation (SAIC) into the British car industry.

IBM's sale of its personal computer division to Lenovo (formerly Legend) was a highly symbolic and significant event. IBM, it will be recalled, had been slow moving into the market for what were then known as microcomputers, leaving the field to upstarts such as Apple and Tandy, while it focused on mainframe computers. When it belatedly entered the market it soon established a leading role, and introduced 'personal computer', or PC, into the lexicon. Part of the strategy was to buy in generic components which allowed other manufacturers to produce clones, the IBM-compatibles [28]. Over time PCs have been commodified, so much so that retailers, such as Dell, have assumed the leading role. It was perhaps not surprising that IBM decided it was time to get out, but nevertheless it was widely seen as the 'end of an era' not just for 'Big Blue', as IBM is known, but also for US industry itself [32].

According to the *Washington Post*, the sale to Lenovo was an IBM initiative. When Samuel J Palmisano took over as president and chief operating officer of IBM in 2000 he moved to transform the business from one selling hardware and software to 'one whose main function is selling its expertise' [16]. The deal with Lenovo

involved not merely the sale of the PC division, and its brand, but also the expertise in technology, management, marketing and distribution to turn the Chinese company into a 'global enterprise' [16]. Whether this strategy is wise for IBM only time will tell. The Chinese are quick learners and IBM will need constantly to replenish and advance its expertise to stay ahead and that may prove difficult.

SAIC is bidding for a majority holding in Britain's historically famous, but perennially ailing, MG Rover car company. The British automobile industry has long been the 'sick man' not merely of Europe, but of the global motor industry. At the time of writing the SAIC deal is not completed, and it may yet fall through [22] [24] [25]. SAIC's acquisition of South Korea's Ssangyong carmaker in 2004 was a protracted affair, and the merger of the two companies has not gone smoothly. Significantly, according to Korean sources, this is because the Chinese executive assigned to Ssangyong, Jiang Zhiwei, speaks neither Korean nor English [6]. Whatever the current deficiencies of foreign language, and foreign experience skills, amongst SAIC executives, the company does have huge resources, sufficient to enter the top 500 global companies [11]. It seems likely that the global knowledge of its executives, especially the emerging middle-ranking ones, will grow rapidly with international exposure and experience. Presumably one of the reasons for the merger strategy, as with Lenovo, is to acquire 'mentoring' from established global players in the acquired company [11]. In the meantime the deal has the strong support of the British government, with the Chancellor, Gordon Brown, making it a focus of a visit to China in February 2005 [23] [35]. SAIC itself aims to be the world's sixth largest automobile manufacturer by 2020, with its own brand [36].

There are a number of other Chinese corporations making their way on the world stage, including Kelon (fridges), Galanz (microwaves), Guangdong Donlim (kettles), GD Midea Holding (rice cookers), TCL (TVs and DVDs) and Hisense (TVs) [8] [36]. However, the one capturing the most attention is Hai'er (also frequently, if incorrectly, spelt Haier). Hai'er originates from the port of Qingdao, home to China's most famous beer, and arguably its first global brand, *Tsingtao* [18]. 'Tsingtao' is merely an older spelling of the city name. Hai'er stands out because of its rapid growth in China, diversification across industries and aggressive expansion into global markets. What is significant is that while this expansion has usually involved some sort of deal with companies in the target market, it has been conducted increasingly under the Hai'er brand. This is happening even though many customers, un the US at least, cannot pronounce its name [38]. India is currently the only country where Hai'er operates with a wholly-owned subsidiary [1]. Hai'er entered the US market selling through the 'superretailers' such as Wal-Mart and Target [11]. Attention to distribution has been one of its characteristic strengths, both at home and abroad. For instance, in late 2004 just before the Chinese retail market was opened to foreign companies in compliance with World Trade Organisation (WTO) agreements, Hai'er entered into a sales joint venture with Suning Appliance Chain Store, China's second largest home appliance chain store [31]. However, what is significant about Hai'er's operation in the United States is that it has gone beyond the expected, and virtually obligatory, deals with the dominant retailers into production. It started selling in the US in 1995 under other names before establishing its own operation in 1999 [29]. The following year completed a \$40million factory in Camden, South Carolina, moving to an area where wage rates were ten times what it was paying in China [38]. The Japanese had reluctantly opened up production in the United States in the 1980s in order to circumvent and deflect American protectionism fueled by a large trade deficit. The Hai'er investment has echoes of that, because America's deficit with China has replaced that with Japan as a major concern but there are considerable differences. The Japanese were hesitant not because of any disparity in wage rates but because they considered American workers inferior to Japanese. Hai'er has given various reasons for the Camden factory such as being able to respond quickly to orders from retailers while maintaining a low inventory, and cutting transportation costs from China but arguably the main one is the strategic desire to establish the perception of Hai'er as an 'American company', and nationalist pride [14] [38]. Nevertheless, the Hai'er investment may be starting a trend, with American regions vying for Chinese FDI in that way they sought Japanese investment in the past [12].

Hai'er has a charismatic leader, Zhang Ruimin, who besides being a vigorous and visionary business leader, is also a member of the Central Committee of the Chinese Communist Party [17]. The Hai'er story has spawned already spawned a film, a book, articles in academic journals, and a number of Harvard Business School case studies [21] [37] [5] [15] [27].

The Chinese expansion in global markets, as exemplified by Hai'er, Lenovo and SAIC, has been extremely rapid and has taken most observers by surprise. However, if we look back into history we can see harbingers of the

present, and future, in the past. We can also trace the early historical ascendancy of China, and Asia, its decline and resurgence. Within this historical perspective the Chinese global offensive becomes less unexpected and even takes on an element of inexorability. Looking back, it seems clear that when the major Asian civilizations regained their political independence and made the transition to modernity, the two being linked together, then it was virtually inevitable that they would soon take a leading, perhaps dominant, role in the international economy. Japan led the charge, followed by the Newly Industrialising Economies (NIEs), initially the 'Four Little Dragons (South Korea, Taiwan, Hong Kong and Singapore), the leading ASEAN economies, China, and latterly, India [4]. The reasons for the order in which this happened, and the process and modalities are immensely complex and contested, but once the geopolitical foundations had been laid it was unlikely that the historical ascendancy of Asia would not be regained to a substantial extent and in some way.

## The Past Regained

Two quotations can be used to delineate our perception of pre-modern China's economy and its attitude to foreign trade. First there is the famous edict of the Qianlong emperor to Britain's George III in 1793 rebuffing British attempts to open up trade relations:

The Celestial Court has pacified and possessed the territory within the four seas. Its sole aim is to do its utmost to achieve good government and to manage political affairs, attaching no value to strange jewels and precious objects. The various articles presented by you, O King, this time are accepted by my special order to the office in charge of such functions in consideration of the offerings having come from a long distance with sincere good wishes. As a matter of fact, the virtue and prestige of the Celestial Dynasty having spread far and wide, the kings of the myriad nations come by land and by sea with all sorts of precious things. Consequently there is nothing we lack, as your principal envoy and others have themselves observed. We have never set much store on strange or ingenious objects, nor do we need any more of your country's manufactures [33].

This condescension and incomprehension was to lead to disaster in the next century, with the British battering their way into the China market with the Opium Wars, and where the British went, others followed [2]. However, the Chinese emperor had a point. We can see now that Britain was embarking on the Industrial Revolution which was to transform the world but at the end of the 18<sup>th</sup> century Britain did not really have any products superior to the Chinese or able to satisfy actual or potential Chinese needs and wants (which is why opium came into the equation). 'Strange or ingenious objects' such as mobile phones, TVs and computers, for which China is now the largest consumer in the world, would have been as inconceivable to George III as they were to the Qianlong emperor. Moreover, in terms of pre-modern commercial activity, China was still perhaps ahead of Britain. Even half a century later, after the first of the Opium Wars had made China's weakness manifest, a Frenchman, the Abbé Huc, traveled from Tibet, down the Yangtze and over the Meiling Pass to Canton in 1850-51 and revealed a surprising view of the Chinese interior. He is here describing the towns of Hanyang, Wuchang and Hankou which together form Wuhan. His is the first important foreign description of the city, some ten years before it became a treaty port:

European productions will never have a very extensive market in China....As foreign commerce cannot offer them any article of primary necessity [that is, which they do not already produce themselves (Murphey's note)] nor even of any real utility, they will interest themselves very little in its extension, and they would see it stopped altogether not only without uneasiness but with a certain feeling of satisfaction....China is a country so vast, so rich, so varied that its internal trade alone would suffice abundantly to occupy that part of the nation which can be devoted to mercantile operations. There are all the great towns important commercial establishments into which, as reservoirs, the merchandise of all the provinces discharges. There is a constant bustle going on about them, a feverish activity that would scarcely be seen in the most important cities in Europe.

The immense populations of China, the richness of its soil, the variety of its product, the vast extent of its territory, and the facility of communication by land and water, the activity of its inhabitants, all

unite to render this nation the most commercial in the world....The stranger is struck by the prodigious bustle and movement going on everywhere under the stimulus of the thirst for gain....From north to south, from east to west, the whole country is like a perfect fair....And yet when one has not penetrated to the centre of the Empire and seen the great towns Han-Yang, Ou-tchang-fou, and Han-keou, facing one another, it is impossible to form an adequate idea of the amount of internal trade [26].

The snapshots complement the historical picture we can reconstruct from statistics. Two main sets of data are used here to trace the historical process. The first is from a couple of studies for the Organisation for Economic Cooperation and Development (OECD) by Angus Maddison looking at long term trends in the world economy [19] [20]. He does not use 'long-term' lightly, and his data runs for 2000 years. This data gives estimates of wealth, both national Gross Domestic Product (GDP) and individual (per capita GDP), and population. Firstly we look at the world as a whole, in terms of regions, and then a comparison of China and West Europe.

The second set of data comes from the World Trade Organisation (WTO) and is solely concerned with merchandise trade.

#### **Wealth of Nations**

Maddison divides the world into a number of regions, some of which I have conflated better to focus on China. Maddison's 'Asia' includes the Middle East, or West Asia but not Central Asia, which is included under 'former USSR'. His 'Western offshoots' is an amalgam of USA, Canada, Australia and New Zealand. It is a rather strange phrase given that it does not include Latin America (which is a separate region). Latin America was settled by the Spanish and Portuguese, and you cannot get much further west in Europe than the places they came from. It may be that including the less successful with the more successful diminishes his argument about the vitality of the 'Western model'. Figures for GDP are given in '1990 international \$' which allows comparison over time (1990 being the benchmark) as well as globally.

Fig. 1 shows GDP by region over these two millennia. Firstly, it is interesting to note that in the year 1000, Africa was the second richest region, second only to Asia, accounting for 11.8% of world GDP. Thereafter it declines and currently (i.e. 1998) it is only 3.1%. Eastern Europe plateaus in the late nineteenth century before declining rapidly with the collapse of the Soviet Union, at the end of the twentieth. Latin America does not 'take off' with European colonization (its share is lower in 1870 than in 1000) but does grow substantially to a new, stable level, in the first half of the twentieth century, helped presumably by escaping from the two world wars. However, it is Western Europe and Offshoots' (WE&O) and Asia which capture our attention. WE&O has been, from the beginning of this period, which was when the Roman Empire was at its height, a major part of the world economy, but it is with the period of European expansion and imperialism that it starts to claw its way to a dominant position. Nevertheless, it is not until the 19<sup>th</sup> century that it overtakes Asia and it looks as if its place at the top will not last much longer. Asia was in long term relative decline from the beginning of the period, mainly because of the rise of WE&O; it should be remembered that we are discussing shares, not absolute amounts of GDP which increase for all regions over this period, apart from Eastern Europe which plummets from \$2.1 trillion in 1973 to \$1.8 trillion in 1998.

Asia and WE&O are clearly the major players in the global economy and their relative shares move inversely to each other. As WE&O colonizes the world and establishes empire, formal and informal, so does its share of world wealth increase. 1950 marks Asia's nadir and WE&O's zenith. Asia begins to rebound with the end of colonialism. This, in itself, does not prove a causal relationship, but it is suggestive.

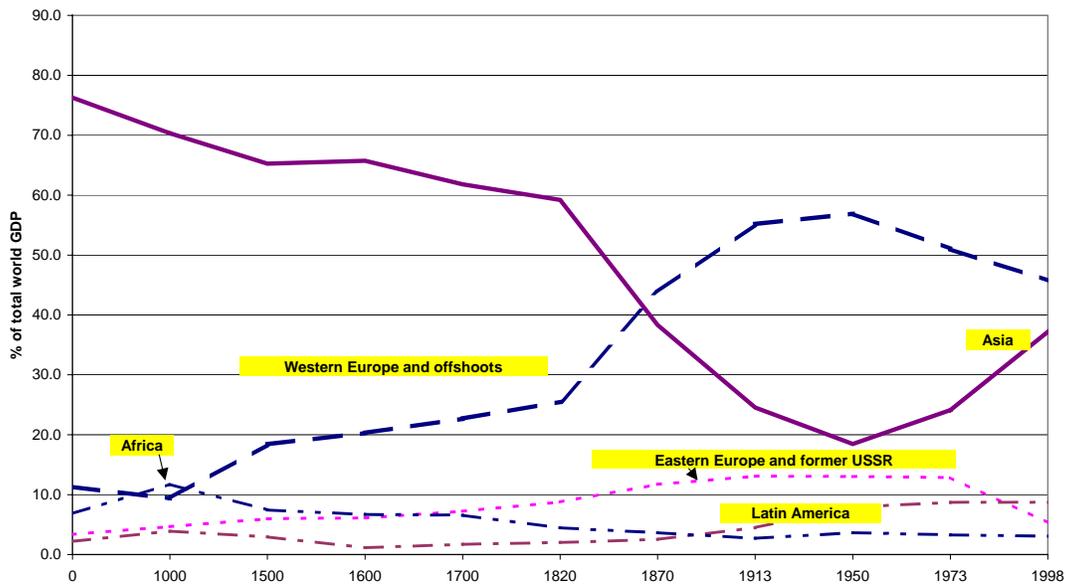


FIG. 1: REGIONAL DISTRIBUTION OF WORLD GDP, 0-1998

The next set of data takes this further by focusing on China, rather than Asia as a whole, and West Europe, shorn of its offshoots; that is without North America, Australia and NZ. There are two sub-sets of statistics in this group – GDP and per capita GDP (pc GDP). These statistics are graphed in Figs 3 and 4, with the underlying data tabulated in the Statistical Appendix (Table A2). Each graph follows the same format. The main data series (GDP, pc GDP) are plotted as columns, with their Y-axis, giving the value, on the left. Also plotted is a line showing the Chinese figures for that variable as a percentage of that for West Europe. The Y-Axis for this line is on the right. Also shown is the 100% level where China and West Europe are equal; above that line China is larger in that variable than West Europe and below it, smaller. Taken together, this enables us to get a pretty clear picture of change, and relative change, in these two key variables over two millennia.

The first dataset relates to GDP, or what we may roughly consider as ‘national wealth’ (Fig 2). This is immensely important as a motivating artifact in myth and fable as well as in actuality. Up until the 19<sup>th</sup> century, the Chinese economy was considerably greater than that of all of West Europe combined. Even as late as 1820, according to Maddison, it was as half as big again as Europe’s. Whether Maddison’s estimates are correct or not is in many ways of less consequence than the perception in early modern Europe that distant Cathay was a prize of great wealth. This was the lure that set Christopher Columbus, in 1492, ‘sailing the ocean blue’, and provided the motivation for the funding that made his journey possible. Columbus, as we know, stumbled across America, with momentous consequences that are still with us, but the search for sea routes to China continued. If there was one holy grail that served as a beacon for European expansion, which included the settling of the ‘Western Offshoots’, it was the fabled riches of China. The image of China as a place of vast wealth continued into the 19<sup>th</sup> century, fuelling the imperialist squabble over East Asia and the unfortunately, but accurately, named Opium Wars. Even when reality dashed the hopes of easy picking, the myth of the ‘vast China market’ continued to entice business even during the century of China’s most abject economic and political prostration. It burst into fresh life during the last quarter of the 20<sup>th</sup> century and although its realization still eludes many foreign companies it grows more powerful by the day, helped by China’s accession to the World Trade Organization.

‘Myth’ is used here in the sense of an inspirational image rather than as something divorced from reality. The reality, in as far as we can know it, is that the Chinese economy was much larger than that of West Europe through most of history and even at the lowest point in this dataset, in 1950, its GDP was \$239.9 billion, or 17% of

that of the whole of West Europe, and probably as large as the biggest single economy in it. Since those dark days there has been astounding growth, both absolutely and relatively, and in 2001 China had climbed back to 61% of the European level, and with no indication of slowing down. Unfortunately, for business and government, GDP does not automatically or easily translate into market opportunity.

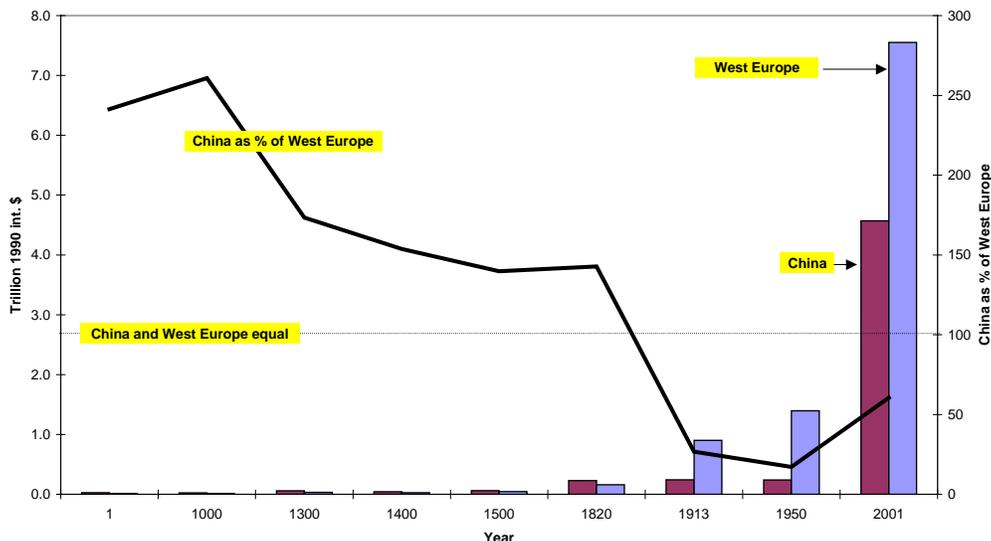


FIG. 2: CHINA AND WEST EUROPE: GDP, 1-2001

One of the reasons that national wealth, or GDP, does not necessarily provide a market is that it must be related to population. Wealth spread over many people creates consumers with little spending power; when that wealth is spread very unequally, as it is, most people are not market consumers at all, and most of those that do participate in market relations can only buy the cheapest of foreign goods, if they can at all. Fig 3 looks at this key measure of per capita GDP or average wealth.

In the beginning, in AD1, the average Chinese was as wealthy (or as poor) as the average West European and things continued this way until 1300. By 1500, the Chinese level was only  $\frac{3}{4}$  of the European, and as West Europe moved into global expansion, so did pc GDP expand hugely, leaving China (and much of the rest of the world) far behind. According to Maddison, Chinese pc GDP in 1950 was \$439, slightly less than the \$450 it had been close on 2000 years before. West Europe, on the other hand, had seen its pc GDP grow from the same level as China's in AD1 (\$450) to \$4,579 in 1950. In that year, China's pc GDP stood at just 10% of the West European level (which would have been substantially behind that of the US). When Westerners encountered China, from the mid-nineteenth to the mid-twentieth century, most Chinese were, in their terms, abysmally poor. In addition there was civil strife, disease, poor sanitation and health (eg opium) and general decay, or lack of modern progress, in governance, social, political, military and civil. It is not too surprising if foreigners at this period regarded Chinese (and other Asians) as lesser beings. There is a limit to how far we can empathize with people whose situation is so different from ours. We might be able to say, 'there but for the grace of God go I', when faced with other's misfortune, but only to the degree that we can envisage it happening to us. When the gap is great, and the prevailing ideology is one of racial, and national, superiority, then it must be difficult for most people, perhaps impossible for all people, to make that leap of faith into a recognition of a common human vulnerability to the consequences of political and economic forces, and the vagaries of fate. There might be sympathy, and the Christian missions to Asia would be evidence of the strength of that, but how many of those who gave generously in church on Sunday would have welcomed a poor Chinese family emigrating and moving in next door?

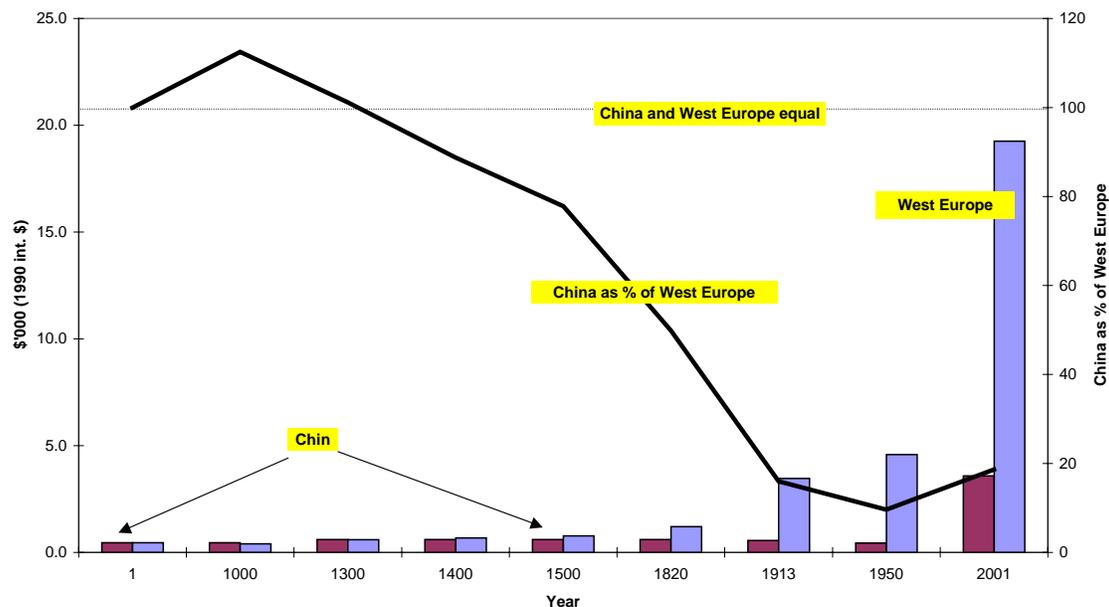


FIG. 3: CHINA AND WEST EUROPE: PC GDP, 1-2001  
Source: as Fig 2

However, in the second half of the twentieth century, Chinese pc GDP began to grow rapidly and by the beginning of the next century, in 2001, it was \$3,583, eight times more than it had been 50 years before and now 19% of the West European level. Moreover, the catch-up was continuing, and it was conceivable that before too long Chinese pc GDP would reach advanced world levels; if the world's environment did not burst under the strain, but that is another story.

Fig. 4 puts China, and the other leading Asian economies, within the context of current distribution of world wealth amongst countries. The data is from the CIA and is calculated at purchasing power parity which gives substantially higher US\$ figure for 'poor' countries such as China and India, and a lower figure for rich countries such as Germany, than exchange rate calculations.

Fig. 4 brings home just how big some of the Asian economies now are, and gives part of the explanation for the rapid global growth of Hai'er and its fellows. Traditionally, the size, and sophistication, of the US domestic market was a prime reason for the success of US corporations in global markets. The Japanese later benefited from their very large and increasingly affluent domestic market [13]. China is now moving from its large domestic market and its huge production base for foreign companies, into global expansion by Chinese companies and Chinese brands [30]. When Chinese companies expand abroad they, like their US and Japanese predecessors, do so from a strong domestic position. Hai'er for instance, celebrated its 20<sup>th</sup> anniversary in 2004 with predications that it would achieve \$12 billion in global sales. It claimed that it had built up 'a network composed of design, manufacturing, sales and service, with 18 design centers, 10 industrial parks, 30 overseas factories and manufacturing bases, 58,800 sales offices, and 96 product group categories around the world' [10]. But behind that global push was its size and dominance in the Chinese market. It has 34% of China's home appliance market [10]. With water heaters, Hai'er has 31% of the home market, and the largest production facilities in the world [19]. Not merely does Hai'er have large production facilities, with corresponding economies of scale, but it also has the marketing prowess to beat off foreign companies in China. America's Whirlpool Corporation., the world's largest appliance maker, moved into China in the late 1990s, "with quite a bit of bravado" but paying insufficient attention to customers. Hai'er, on the contrary, produced compact products that better fit the needs of Chinese consumers who, like most people in the world, have smaller houses than Americans [29].

Had China, and other parts of Asia, just got richer in isolation, with no contact with the rest of the world (as had been the case in the pre-modern period) that that would have been that, with no particular consequence for anyone else. However, there were all sorts of economic and other linkages, so what happened in Asia inevitably impacted elsewhere. The easiest relationship to trace is that of merchandise trade, and we look at that next.

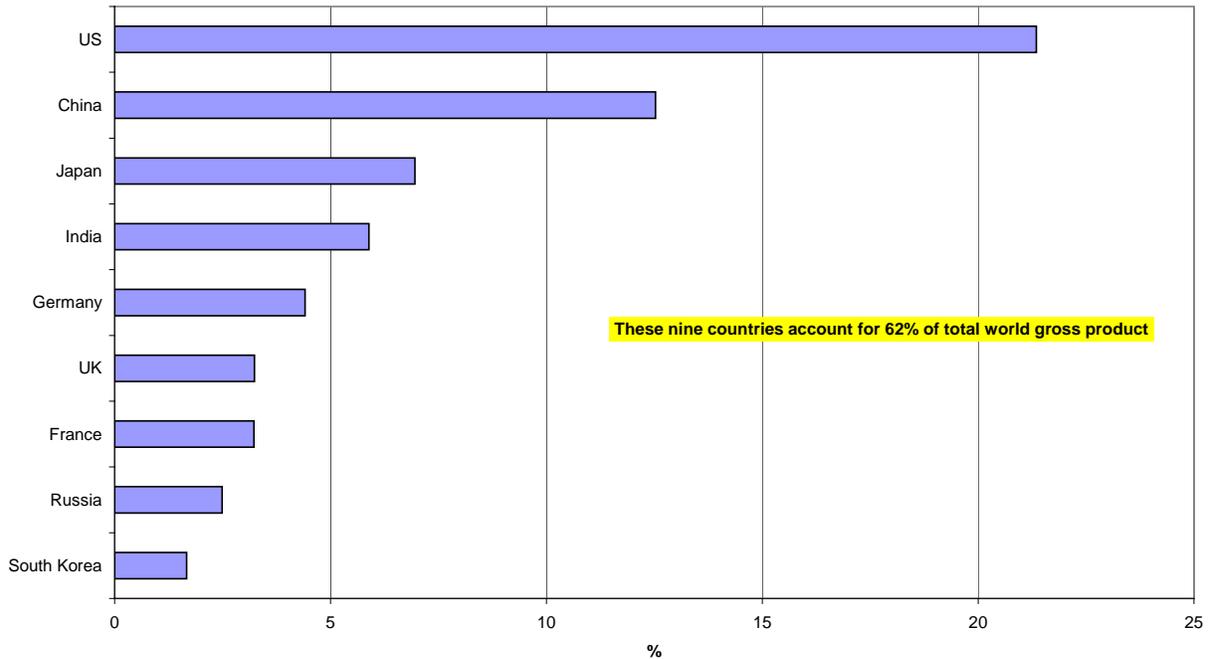


FIG. 4: SHARE OF WORLD GROSS (DOMESTIC) PRODUCT, 2003

**Merchandise Trade**

Fig. 5 and 6 take World Trade Organisation data and plot the share of Asia, and the United States for comparison, in world imports and exports, respectively.

These two graphs tell rather different stories with common elements. The US position in world trade in the late 1940s was unsustainable when (or if) other parts of the world recovered from the ravages of the Second World War and its aftermath. But Asia not merely recovered from the war, it also regained its independence. This is a broad description and the reality was obviously very complex but it does encapsulate the key characteristic of the change in Asia's situation, a change that enabled it, with varying degrees of wisdom and success, to have more control over its economic policy.

Asia's increase in share of world trade over this period is quite dramatic. Its share of world imports went up from 9.9% in 1948 to 23.5% in 2003 and its share of exports from 10.1% to 26.9%. However, while Asia's share increased for both imports and exports, America charted a different course. Its share of imports fell behind that of Asia, but still increased over this period. The US proportion of world imports rose, with fluctuations, from 13.0% in 1948 to 16.8% in 2003.

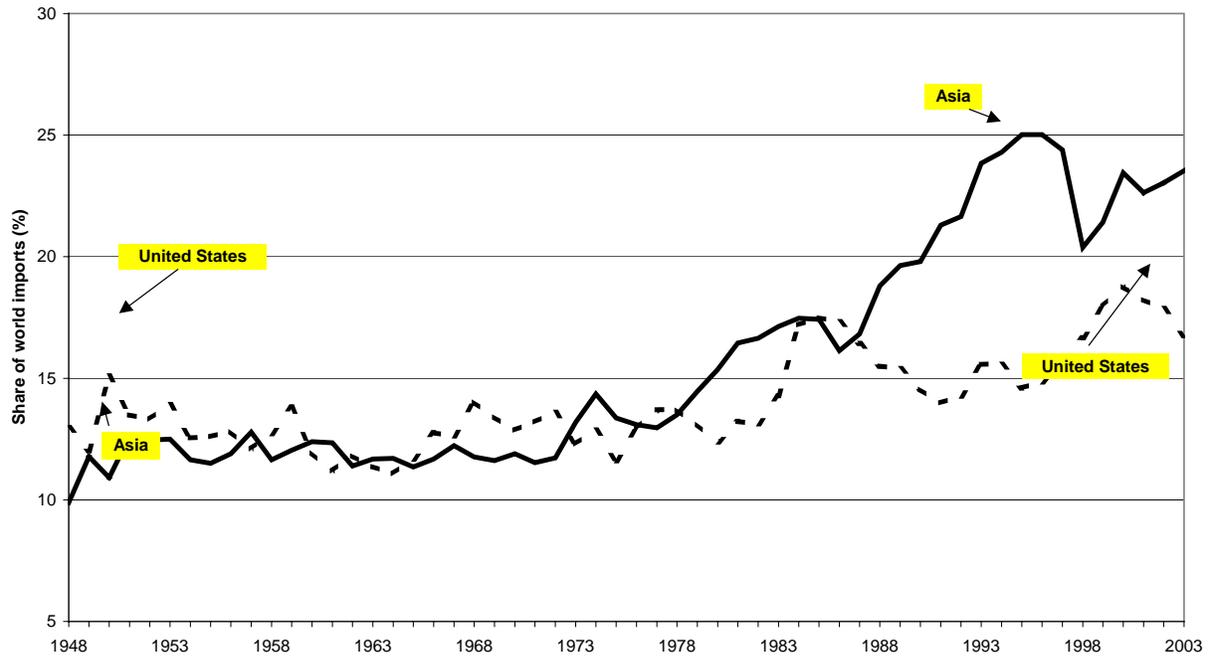


FIG. 5: SHARE OF WORLD IMPORTS, 1948-2003, ASIA AND US

However, the US share of world exports fell from 21.7% to 9.6% in 2003 (Fig 6)

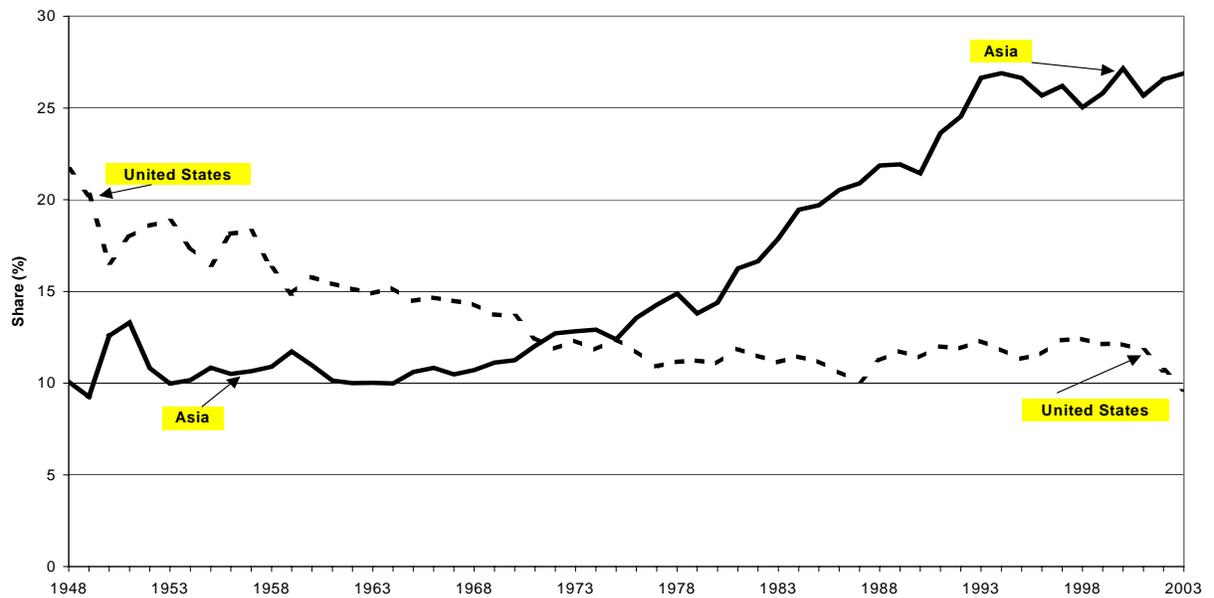


FIG. 6: SHARE OF WORLD EXPORTS, 1948-2003, ASIA AND US

Inevitably this poor export performance was reflected in a growing balance of trade deficit. Asia's balance has been effected by events such as the oil shocks but has moved into a strong positive position (Fig. 7)

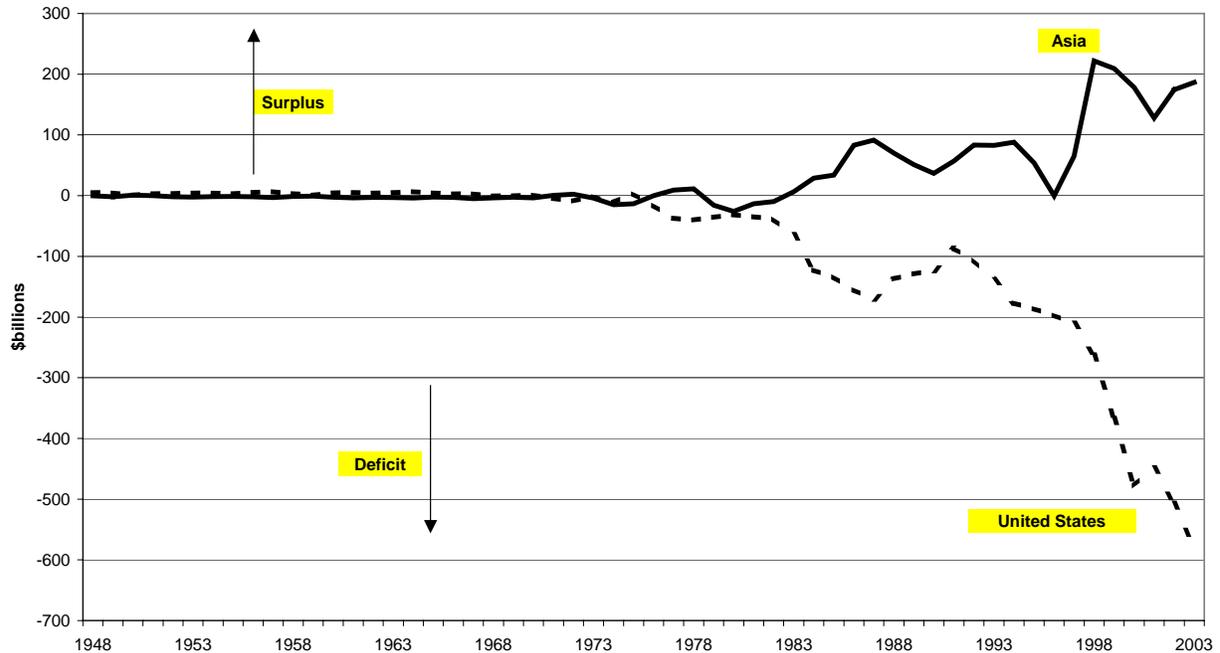


FIG. 7: BALANCE OF TRADE WITH THE WORLD, 1948-2003, ASIA AND US

Asia's surplus and America's deficit is both a cause of, and a manifestation of, the advance of Asia corporations such as Haier into world markets. Even if the United States manages to tackle its trade deficit, it is unlikely that the Asian advance will be halted. What we are seeing is China, and Asia in general, reclaiming its traditional place in the world economy. As Andre Gunder Frank put it, after having noted how Germany and North America had displaced Britain,

Alas for some, today their place in the sun is also being displaced by the "Rising Sun" in East Asia. One of the theses of this book is that these developments should come as no surprise, because parts of East Asia already were at the centre of the world economy/system until about 1800. In historical terms, "the Rise of the West" came late and was brief [7].

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## Challenges of the Expanded Europe: A Cultural Perspective

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### Abstract

Globalization is constantly changing the appearance of the modern world. The most intense processes of integration are taking place in Europe in the framework of the European union (EU) enlargement. Though the formal process is more or less concluded, the subtle in informal ones still have a long way ahead. Social structures (institutions, organizations, norms, etc.) are with the transfer in the direction west-east and north-south truly converging, but the question is, whether they “are placed” into acceptable cultural environments; for the structures do not exist by themselves alone. Structure and action are merely two reflections of the same phenomenon, which in the end depend on the cultural environment in the narrower sense of the word - human perception and values. This poses the basic question, whether the cultural orientations of the new (or soon to be) EU member states are compatible with imported social structure.

### Introduction

Drafting a cultural image is very important when assessing the development potentials of individual societies. In this sense we are particularly interested in the process of transition from post communist countries into (post)modern societies, which beside a structural has a cultural component as well. The former assumes the adaptation of fundamental institutional, legal and behavior standards, which are valid in developed western societies. It depends on socioeconomic resources, human capital, capabilities, will and interest of social elites for structural reforms. The resources are heterogeneous, thus some transition countries successful than others. While the assumed normative and behavioral patterns, as well as organizational and institutional structure can be under favorable conditions rather quickly ‘standardized’, at the core of culture i.e. at value systems the problem is more complex. If a critical mass of modern values does not exist, it can additionally and in the long-term hinder the transition process. The process of cultural ‘synchronization’ should not be understood as unilateral transmission and as process of taking over certain cultural patterns from Western Europe, because it would lead to cultural assimilation. On a global level Ronald Inglehart (1997) is finding the processes of changing of cultures in the direction of postmodern, discovering that the changes are not occurring linearly.

On the cultural differences cannot be looked upon as achieving different civilizational stages in development-genetic sense (e.g. on the line premodern-modern-postmodern). Some cultural orientations are simply different and it is not necessary, that they are lower or higher on the evolutionary scale. Therefore e.g. in a society mass culture stands opposite of masses of subcultures, it exists so called organizational and other sorts and kinds of cultures, but on international, as well as on national and regional level, different distinctive cultural entities are emerging. Therefore cultural diversity should not be placed into development models (Inglehart 1997; Berger & Huntington 2002; Höhmann 1999). Even less appropriate it would have been to derive from starting point of unification (where the globalization processes are heading for). Quite opposite, they should be humanly managed and preserved as invaluable asset.

Despite everything it can be assumed, that in the transition societies cultural sediments, which obstruct the enforcement of modern social structures and principles, are still present. These sediments function as contra-cultural<sup>1</sup>.

Due to lack of suitable data bases assumptions about cultural changes of Slovenes cannot yet be defined. Although on the basis of available international comparable research and selected theoretical model can be determined what it is like and where is the placement of Slovenia in the context of European culture.

## Methodology

The research will be based on 26 units, i.e. European countries, which are included into European values survey (EVS): Austria, Belgium, Bulgaria, Czech republic, Denmark, Estonia, France, Great Britain, Greece, Ireland, Italy, Latvia, Lithuania, Luxemburg, Hungary, Malta, Germany, Netherlands, Poland, Portugal, Romania, North Ireland, Slovak republic, Slovenia, Spain, Sweden.

For determining the cultural characteristics of Slovenes the Hofstede's research model with five cultural dimensions will be used. In the empirical part they are measured with the following indexes:

- **Power distance<sup>ii</sup> (PD)** – Hofstede describes it with the relationship towards equality and hierarchy in society, above all, to what extent and in which way people are accepting uneven distribution of social power, particularly those, which do not possess it much [Hofstede 200: 33, 412];
- **Individualism (IND/COL)** – this cultural dimension lets us know, how individual societies are assessing individualism, i.e. person's orientation towards him/herself (or his/her family), pursuing own goals and interests or society, where social ties among family members are not firm. The opposite term is collectivism, which is connected with positive evaluation of devotedness, loyalty and placement of the individual in the collective, into "we"-group, where he feels protected [Hofstede 2001: 410-411];
- **Masculinity (MAS/FEM)** – is a cultural component opposite from femininity. It is characteristic for societies with firmly fixed differences in role distribution between genders [Hofstede 2001: 412]. In societies with lower value of MAS index – in the so called feminine cultures – the borders between traditional roles are vague, cooperation is highly appreciated as oppose to competition or rivalry [Apfelthaler 1999: 59];
- **Long-term orientation (LTO/STO)** – "Confucius dynamics<sup>iii</sup>", as this variable is called other wise, is a national cultural component, which expressed long-term or short-term orientations of the members of a certain culture. Long-term orientation is all about fostering virtue, directed at future success, especially thriftiness and persistence; short-term orientation on the other hand is about retaining values, which are linked with the past and future. In the forefront are respect for traditions, preserving reputation and fulfillment of social obligations [Hofstede 2001: 411-412];
- **Uncertainty avoidance (UA)** – signifies the perception of society members being under threat before the unknown and uncertain situations [Hofstede 2001: 411]. This dimension refers to reactions of some culture to uncertain future, especially its mastery with the help of the law, technology, rules and rituals. Cultures with high UA index show little tolerance toward so called unstructured situations, ambiguous relations and uncertain future. They try to handle the feeling of being uncomfortable by following strict rules of standardized behavior.

At every cultural dimension we will (like Hofstede) measure the value relation to the chosen problem, on two levels. First we will search the variable, which fits the relation to the chosen problem, on the individual or social life level (school, work, family), then on the general level (politics, state, ideology, societal norms...). Values of both variables will represent one cultural dimension.

When drafting the empirical model we have leaned it on contemporary empirical research approaches of culturologists Hofstede<sup>v</sup>, Trompenaars<sup>v</sup>, Apfelthaler and Inglehart<sup>vi</sup>, where values have a central place in cultural orientations.

## Empirical Analysis of European Cultural Orientations

### Power Distance Index (PDI)

How Slovenes are comprehending (a)symmetrical power distribution? Some cultures except it absolutely uncritical, as externally given (Venezuela, Panama, Thailand, China etc.), others (USA, Great Britain, Australia, Canada, the Netherlands etc.) pass critical judgment from the principle of equality point of view [Hofstede 2001: 72]. We can compare Slovenia in the existing data base with EU member countries and accession countries.

1. On the level of family ties, lower or higher power distance is reflected on parents-children relationship. High value of PDI means, that parents raise their children as obedient, well behaved, respectful [Hofstede 2001: 48]. Value of PDI can be therefore made out from answers to a question, whether 'obedience' is an important characteristic, which children gain from their parents' upbringing, or not.<sup>vii</sup>

Slovenes put above average importance on obedience as imparted attribute of the children (high value of power distance index – PDI.1) (Tab.1). This is distinctive for some other countries as well, like Germany, Austria, Denmark, Sweden, Czech republic, Greece, Romania etc. On the other side there are countries, where obedience as virtue is not appreciated e.g. Great Britain, Spain, Belgium, North Ireland and Ireland.

2. On the social relations level there is interesting relationship towards the way of ruling. According to Hofstede high values PD are associated with oligarch or autocratic orientations [2001: 56]. Intriguing question arises, whether Slovenia together with most other candidate countries, which have had half a century era of totalitarian regime, still bare the burden of the past in cultural sense? Citizens of European countries included in the research have expressed their attitude towards the system, in which a 'strong leader' would rule without elections and parliament. EVS indicates, that Slovenes have lower value of the PD in comparison to European average, which means, that in this dimension it has some positive supposition for development of democracy. Low index (named PDI.2) have Germany, Denmark, Greece, Czech republic, Italy and Austria. Romania, Bulgaria and Luxemburg have high PDI.2 value, which correlates negatively with democracy. The latter can be named autocratic syndrome<sup>viii</sup>.

TABLE 1: POWER DISTANCE INDEX (PDI)

<i>countries</i>	<i>PDI.1</i>	<i>PDI.2</i>	<b>PDI</b>
France	63,7	36,3	51
Great Britain	51,2	48,8	62
Germany	88,2	11,8	48
Austria	83,3	16,7	51
Italy	72,3	27,7	56
Spain	51,6	48,4	63
Portugal	61,3	38,7	52
Netherlands	73,2	26,8	50
Belgium	58,1	41,9	55
Denmark	85,7	14,3	50
Sweden	87,3	12,7	46
North Ireland	42,7	57,3	69
Ireland	52,6	47,4	60
Estonia	71,6	28,4	55
Latvia	79,6	20,4	31
Lithuania	80,6	19,4	32
Poland	67,7	32,3	55
Czech republic	82,8	17,2	50
Slovak republic	73,6	26,4	53
Hungary	67,1	32,9	56
Romania	82,0	18	26
Bulgaria	84,2	15,8	34
Greece	83,2	16,8	53
Malta	59,0	41	61
Luxemburg	73,9	26,1	36
Slovenia	74,9	25,1	51
average	71,2	28,8	50
the West	68,6	31,4	53
transition economies	74,8	25,2	46

Own calculations from EVS 1999

**Index of Individualism (IIND)**

According to Hofstede [2001: 92-102] the collectivistic cultures are the ones, where collective interests come before individual ones, where the dominant role of the state in the economy prevails, where ideology of equality predominates the ideology of free will, where the equilibrium and consensus are the highest goals etc. In the forefront of the so called individualistic cultures the interests of individual prevail over collective, the right to privacy is highly appreciated value, state has a limited role in the economy, because it is based on individual initiative, political power is executed by electors not by interest groups, freedom of the press is asserted, liberty comes before equality and self actualization of the individual is the highest aspiration.

1. Individualistic and collectivistic orientations will be compared by measuring European (collectivistic) attitude towards dilemma will be measured, whether 'the state should control private companies more or should they be given more freedom'<sup>ix</sup>.

The results show, that what role of the state in the economy are concerned, collectivistic values in Europe are not prevailing, although there is an exception (Luxemburg). Distinctive collectivistic cultural orientations are exhibited by citizens of Latvia (73,0 %), Slovak republic (72,4 %), Hungary (62,6 %), Luxemburg (61,2 %), Estonia (60,2 %), Poland (61,0 %) and Czech republic (55,7 %) (Tab.2). On the other hand distinctive individualistic orientations are displayed in Sweden (17,6 %), Austria (23,4 %), Denmark (26,6 %), North Ireland (27,9 %) and Malta (28,9 %), Lithuania (30 %) and Great Britain (34,3 %). Slovenia together with the rest with value of ICOL<sup>x</sup> 45,6 % is placed in the group of countries, where nor one or the other distinctive orientations prevail. Despite this

fact it can be determined, that citizens of developed western countries express predominantly individualistic while the rest (besides mentioned exception) above average collectivistic value orientations.

2. What are the individualistic orientations on the personal level like? This will be measured with the help of index of individualism (IIND), which measures the evaluation of independence on the basis of parental opinion, whether 'independence is especially important quality the children can be encouraged to learn at home'.<sup>xi</sup>

Countries with the lowest IIND are mostly those, which still have a patriarch pattern of upbringing embedded in their culture. To this group belong some of the transition countries (Estonia Poland, Romania) and Western societies with predominant catholic culture (France, Spain, Portugal, Malta and Italy). IIND is particularly high in the so called protestant countries such as Germany, Denmark and Sweden and in some middle European countries (Austria, Czech republic, Hungary and Slovenia); in this group of countries is also Lithuania.

Therefore it can be concluded, that Slovenia on the individualism-collectivism scale is showing two faces. On the general state level are the Slovenes more collectivistic oriented, though not exaggeratedly. This is a consequence of etatistic mentality, which is still being maintained as a cultural rest over of the previous collectivistic economic system, partly as corporatevistic tradition, which has even before communism held back the domination of pure liberal concepts as well in economy as in politics. In this aspect Slovenia resembles to other societies with predominant catholic orientations. On the personal level the individualistic dimension in Slovene culture is more explicit, this was also proven in other sociological research (Zver 2002, Bobek, Sruk, Treven, Zver & Zivko 2003). In Slovenia the patriarch family ties are very loose; the so called big family is practically non existent. The nuclear family is prevalent, though it is loosing its meaning. 'We' thinking has almost disappeared; the family members are primarily working on individual identity. Family relations are more equal not just between genders, but also in parents-child relations. The traditional family communication "vikanje" (children addressed their parents formally) has almost completely disappeared, though less than century ago children were sill "onikali" their parents. According to the measured variables we can say, that Slovenes are predominantly individualistic oriented<sup>xii</sup>.

TABLE 2: INDEX OF INDIVIDUALISM/COLLECTIVISM (IIND/ICOL)

<i>countries</i>	<i>ICOL</i>	<i>IIND.1</i>	<b>IIND</b>
France	34,3	28,9	47
Great Britain	31,2	52,9	61
Germany	34,2	70	68
Austria	23,4	70,5	74
Italy	37,5	41	52
Spain	41,6	33,6	46
Portugal	47,2	22,4	38
Netherlands	49,1	52,4	52
Belgium	48,5	41	46
Denmark	26,6	80,4	77
Sweden	17,6	68,7	76
North Ireland	27,9	50,5	61
Ireland	37,2	50,6	57
Estonia	60,2	21,7	31
Latvia	73,0	50,8	39
Lithuania	30,0	75,4	73
Poland	61,0	22,1	31
Czech republic	55,7	68,9	57
Slovak republic	72,4	61,3	44
Hungary	62,6	70	54
Romania	57,8	28,4	35
Bulgaria	47,6	41,9	47
Greece	54,2	46,3	46
Malta	28,9	30,1	51
Luxemburg	61,2	48,6	44
Slovenia	45,6	70,3	62
average	44,9	50,0	53
the West	38,1	50,5	56
transition economies	54,1	49,2	48

Own calculations from EVS 1999

### **Masculinity index (IMAS)**

Masculine culture is oriented towards success and efficiency. It is characterized by power, upbringing is gender differentiated and conflicts are dealt with rivalry. Masculine type of culture is associated with values and concepts of successful economic society, growth is of great importance and the stronger are being favored, society is repressive, power and victory are given priority over compromise [Hofstede 2001: 137-148]. So called feminine culture has marked early modernism and postmodernism, as well as Western civilization circle. In feminine societies gender relations are more equal, humane relations are priority, sensibility is a virtue, the weak are sympathized with, the emphasis is on equality, justice, solidarity and compromising. The quality of life is referenced over success.

1. Masculine society is determined by clear gender role division, e.g. woman is ascribed to the primary role in taking care of household and children's upbringing. From EVS database we have measured the percentage of those, which have agreed with the following statement: 'It is OK if a woman is employed, but what she really wants is home and to have children'<sup>xiii</sup>.

Europe according to this dimension is more masculine oriented. Even in this variable we are able to classify countries into groups, which coincide with either with religious affiliation or general civilization development. In order to explain the similarities and differences between countries, both components must be considered. The highest IMAS (Tab.3), which depicts the degree of masculine culture, can be observed among transition countries (Lithuania, Romania, Germany, Bulgaria, Poland, Czech republic, Hungary), that is in the societies, which have in the past lived under totalitarian regimes and publicly proclaimed gender equality, but gender segregation was actually ruling in mental structures.

Religion is a very decisive factor in the inculturalization process. This can be once again viewed in a group of countries, where IMAS is less evident. The least masculine culture can be found in Denmark, followed by Northern Ireland and Ireland<sup>xiv</sup>, Sweden, Great Britain and Germany, which values are below the average of 50 % as well. These societies can be considered as feminine cultures. Again masculine element is more emphasized in catholic societies, e.g. in France, Italy, Portugal, but not as much as in the transition economies. Feminine culture therefore coincides with protestant religion, level of economic development and secularization.

Slovenia with emphasized masculine culture (IMAS.1 = 64,7 %) together with Estonia, Latvia, Hungary, Slovak republic, Belgium, France and Italy belongs to the European average.

2. Indexes of masculinity and femininity can be measured with otherwise. We have already established that masculine cultural posture on the meaningful level is associated with money, power, competition, material possessions etc., feminine culture on the other hand thrives toward care for fellow human, more than money and possession people, good personal relations and quality of life are important. In EVS the interviewees were asked, whether it would be good, if there would be changes from our current living style in the future, for example 'less importance should be given to money and material possessions'<sup>xv</sup>.

High value of the index can be viewed in countries, where according to Inglehart post modernistic values find most expression in, especially in France, Great Britain, Hungary, Spain, Belgium, Denmark, Sweden, North Ireland, Ireland, Malta and Luxemburg. Above average high is index in Greece, a little above average also in Romania and Slovenia. In other societies the characteristics of masculine culture are more evident. Especially in Latvia that is least feminine oriented.

Slovenia is partly on the track towards post modernistic culture, where Weber's values of rational capitalism should loose their importance. In Western societies, also in Slovenia, the process of feminization of masculinity and masculinization of femininity is taking place, which means that gender differences are loosing their societal relevance<sup>xvi</sup>.

TABLE 3: INDEX OF MASCULINITY/FEMININITY (IMAS/IFEM)

<i>countries</i>	<i>IMAS</i>	<i>IFEM.1</i>	<b>IFEM</b>
France	66,0	70,4	52
Great Britain	44,3	65,7	61
Germany	44,0	53,4	55
Austria	41,5	50,1	54
Italy	67,5	70,6	52
Spain	46,7	80,6	67
Portugal	52,5	57,2	52
Netherlands	34,5	59	62
Belgium	55,8	69,4	57
Denmark	18,5	70	76
Sweden	40,4	67,3	63
North Ireland	35,1	71,6	68
Ireland	35,1	69	67
Estonia	67,0	54,1	44
Latvia	66,9	31,8	32
Lithuania	93,8	45,6	26
Poland	74,2	60,1	43
Czech republic	72,1	48,7	38
Slovak republic	61,1	61,4	50
Hungary	70,2	45,1	37
Romania	85,0	65,5	40
Bulgaria	75,7	57,6	41
Greece	79,6	73,7	47
Malta	70,2	81,8	56
Luxemburg	55,4	70,8	58
Slovenia	64,7	62,8	49
average	58,4	62,1	52
the West	47,8	66,6	59
transition economies	72,8	55,9	41

Own calculations from EVS 1999

**Long-term Orientation Index (ILTO)**

Culturologists give more importance to another cultural dimension called long-term or short-term orientation. The theory of socialization looks upon long-term orientation as a feature of mature personality. An individual with short-term orientation strictly obeys tradition, gives great value to his social duties and is declined to investment. Long-term orientation adapts tradition to modern circumstances; it emphasizes saving, future investments.

1. If we can choose among some work aspects, than people with short-term orientation would as most important choose good pay, people with long-term orientation on the other hand job security, good promotion prospects etc. This question, on the basis of which STO and LTO respectably will be measure, was part of EVS.

The average value is our border line, which builds two groups of countries, which partly explain long-term and short-term orientation. Salary in Europe still remains the most important choice factor for work and profession. Despite this we can conclude, that in the developed countries this orientation is less expressed as in lesser developed ones. Most long-term oriented are citizens of Denmark, Sweden, Luxemburg, Belgium, Austria, France, Netherlands, Germany, Latvia and Czech republic (Tab.4). The other group, where “easy money” is regarded as value, consists of mostly transition countries, as well as less expected ones (Great Britain, Italy and Spain).

2. We have already mentioned that one of the core features of long-term orientation is saving, which is a result of several factors. We assume, that people in less wealthy countries lack saving funds and that they have to live on “day by day” basis, while in the reach countries there are enough resources for saving and investments. We can also assume that in transition economies, which fought with high inflation, saving (in their national currency) was not very reasonable and it is therefore unknown in their culture and behavior. Moreover we assume that saving is one of

the core characteristics of so called protestant work ethic, which Weber wrote about and it is supposed to have influenced the development of capitalist economic system as the most rational one. The Calvinist commend about thriftiness and modesty is supposed to have start the formation of accumulation in Western economic systems, which later on enabled faster economic development in general, people were inspired by this living style in hope for salvation. Due to this presumption we can justified assume, that this value is the most important in predominantly protestant societies.

Our results show the opposite. Lower LTO have mostly developed countries, e.g. Netherlands, North Ireland, Romania, Great Britain, Germany, Italy, Portugal, Sweden, Czech republic and Slovenia. Other group with more explicit LTO represents Latvia, Luxemburg, Malta and Austria.

It can be concluded that saving is not important cultural orientation of Western societies anymore; definitely it can not be placed into the corpus of post modernistic values, typical for the West. Bigger saving volume in the cultural pattern of transition economies could be explained that these countries not long ago became capitalistic and that it is as an early modernistic value necessary on the general (in economic sense as capital accumulation) as well as on the personal lever (mostly as an active form of surmounting uncertain future).

In short, virtue of saving does not correlate with level of economic development, not even with certain work ethics, but it is rather a result of new system living conditions, in which people from transition economies found themselves in<sup>xvii</sup>.

TABLE 4: INDEX OF LONG-TERM/SHORT-TERM ORIENTATION (ILTO/ISTO)

<i>countries</i>	<i>ISTO</i>	<i>ILTO.1</i>	<b>ILTO</b>
France	68,5	37,5	35
Great Britain	81,2	32,8	26
Germany	75,2	36,8	31
Austria	66,2	47,6	41
Italy	84,7	34,6	25
Spain	83,4	32,8	25
Portugal	80,2	35,6	28
Netherlands	73,1	23,0	25
Belgium	69,7	43,9	37
Denmark	53,9	9,6	28
Sweden	58,2	30,5	36
North Ireland	88,8	25,7	18
Ireland	88,8	21,4	16
Estonia	88,5	44,4	28
Latvia	75,4	45,1	35
Lithuania	92,6	41,6	25
Poland	93,0	38,1	23
Czech republic	73,9	31,6	29
Slovak republic	91,0	38,6	24
Hungary	89,7	40,9	26
Romania	90,7	29,3	19
Bulgaria	90,9	38,9	24
Greece	85,9	37,1	26
Malta	89,0	54,0	33
Luxemburg	65,6	48,4	41
Slovenia	87,2	35,4	24
average	80,2	36,0	28
the West	74,9	33,2	29
transition economies	87,4	39,8	26

Own calculations from EVS 1999

## Uncertainty Avoidance Index (UAI)

As we have already mentioned an important cultural difference between societies is a way, how people who find themselves in unknown risk situation, e.g. in uncertainty, overcome them [Hofstede 2001: 180-193].

Low UAI means that people confront these risks and uncertainties firmly, they are not afraid of changes, which could be possible to handle. Competition is highly valued, encouraged are vertical and horizontal mobility. Such cultures, which feel strong enough, accept uncertainty as normal and do not adopt special measures, they face them automatically.

1. According to this dimension we are able to distinguish typical state regulations. Countries with weak uncertainty avoidance have little laws and rules. Normally these countries are more democratic, because people are accepted as competent for (self)decision-making, even participation is higher. The citizens of the other type (regulation with strong system of uncertainty avoidance) have negative inclinations towards institutions and politics, conservatism, xenophobia and oppression of minorities are predominant. In short, these societies favor democracy less. They show various kinds of fundamentalism and are inclined toward ideological rationalization and expertocracy.

Even this variable, which according to theory should differentiate countries with higher level of democracy than others, we got some surprising results. High percentage of positive answers, that all rules at work should be obeyed, even without conviction, that they are correct, can be found even in developed northern countries like North Ireland, Great Britain and in Hungary and Portugal. Low values of UAI show Slovenia, Lithuania and Estonia (Tab.5). How can the phenomenon of liberal perception of rules in transition countries be explained? Most probably it can be explained with anomie, which means general neglect of moral and legal norm or loss of rights, which occurs in the periods of the most intense changes of established value patterns. Especially in former communist countries of mass number of rules and norms, which were set by the regime, they were not accepted by the citizens. On one hand due to the high number of (forced) rules and because the state tended to determinate all the areas of human life, on the other hand these norms and rules did not match the value orientations most of the people. In view of this contradiction people tend to follow as much as possible their own internal orientations, not the external pressure.

Below average is UAI in Netherlands, Austria, Italy and Malta can be explained with post modernistic culture, a value of individual autonomy of life in the work place.

2. Low UAI is associated with democratic orientations. EVS included a question, which kind of state governance do interviewees find suitable. They were able to choose the option, that it is the best for the state, that 'experts and not the government are decision-makers'. The power of science is in contemporary society exceptional. The experts usually solve problems their way, most often their decision is based on cold scientific calculation of profitability, efficiency and impartial legality. People often demand that branch of knowledge should decide in a certain matter. Many find the democratic decision-making inefficient, irrational and too expensive.

Extraordinary high value of UAI can be found in transition countries, especially in Slovenia, Bulgaria, Romania, Hungary, Slovak republic and Poland. This is a direct consequence of people's dissatisfaction, which had higher expectations regarding democratic development in these countries; it also means peculiar kind of no confidence in the political elites.

The lowest UAI value is in Greece, Denmark, North Ireland, Swede, Estonia and Great Britain (Tab.5); with exception of the first, are these the countries with predominant protestant religion. A little high AUI value has Germany, Italy, Spain, Portugal and particularly Austria (except the first one they are all catholic states). This could result from explicit corporativistic mentality and practice and can be partly seen in Slovenia as well. Democracy, which is based on rivalry, is not adequate to solve social and economic problems of society. They demand that politics should be replaced by branch of knowledge<sup>xviii</sup>.

TABLE 5: UNCERTAINTY AVOIDANCE INDEX (UAI)

<i>countries</i>	<i>UAI.1</i>	<i>UAI.2</i>	<b>UAI</b>
France	33,4	50,4	58
Great Britain	44,4	47,0	54
Germany	36,3	56,0	54
Austria	25,3	60,6	57
Italy	26,9	51,0	61
Spain	36,9	55,1	54
Portugal	42,4	47,4	55
Netherlands	27,3	38,0	67
Belgium	30,4	57,5	56
Denmark	35,7	29,6	67
Sweden	38,0	41,4	60
North Ireland	47,9	37,9	57
Ireland	37,1	38,2	62
Estonia	21,1	56,7	61
Latvia	26,7	60,6	56
Lithuania	19,3	57,0	62
Poland	25,5	87,8	43
Czech republic	30,5	63,2	53
Slovak republic	33,6	85,5	40
Hungary	43,0	85,2	36
Romania	34,0	84,7	41
Bulgaria	35,8	82,4	41
Greece	38,5	17,0	72
Malta	29,5	33,5	69
Luxemburg	33,0	46,2	60
Slovenia	18,7	81,4	50
average	32,7	55,8	56
the West	35,6	44,9	60
transition economies	28,9	70,7	50

Own calculations from EVS 1999

### Comparison of National Cultural Orientations

National cultural orientations are compared on the basis of similarities and differences of values of individual variables, which we have merged with Hofstede's research model of cultural orientations. To summarize: the results have shown that Western countries (like Great Britain) do not accept hierarchy, inequality and authority as opposed to transition countries (like Romania). Slovenia is in respect to the latter among the average. The most individualistic cultural orientations can be find in the west (like Denmark), most collectivistic in the transition economies (like Poland, Estonia). Slovenia is above average individualistically oriented in Europe (Tab.6). Most feminine cultures are in Scandinavia (Denmark, Sweden), least again transition economies (Lithuania). Masculine orientations are predominant in Slovenia. The last two dimensions did not show a clear division between western European and transition countries. Slovenia is regarding Confucius's dimension under the European average, as well as in the area of determination and self-confidence in facing uncertainties of life.

TABLE 6: REVIEW OF »CULTURAL« INDEXES

<i>countries</i>	<i>PDI</i>	<i>IIND</i>	<i>IFEM</i>	<i>ILTO</i>	<i>UAI</i>
France	51	47	52	35	58
Great Britain	62	61	61	26	54
Germany	48	68	55	31	54
Austria	51	74	54	41	57
Italy	56	52	52	25	61
Spain	63	46	67	25	54
Portugal	52	38	52	28	55
Netherlands	50	52	62	25	67
Belgium	55	46	57	37	56
Denmark	50	77	76	28	67
Sweden	46	76	63	36	60
North Ireland	69	61	68	18	57
Ireland	60	57	67	16	62
Estonia	55	31	44	28	61
Latvia	31	39	32	35	56
Lithuania	32	73	26	25	62
Poland	55	31	43	23	43
Czech republic	50	57	38	29	53
Slovak republic	53	44	50	24	40
Hungary	56	54	37	26	36
Romania	26	35	40	19	41
Bulgaria	34	47	41	24	41
Greece	53	46	47	26	72
Malta	61	51	56	33	69
Luxemburg	36	44	58	41	60
Slovenia	51	62	49	24	50
average	50	53	52	28	56
the West	53	56	59	29	60
transition economies	46	48	41	26	50

On the basis of statistical processing of our database (SPSS programme, cluster analysis, Ward method) we got two large groups of countries:

- Lithuania, Latvia, Bulgaria, Romania, Slovak republic, Poland, Estonia, Portugal, Hungary and Czech republic (transition economies with exception of Portugal),
- countries, which can be divided into two subgroups:
  - ⇒ Spain, Great Britain, Ireland, North Ireland, Greece, Netherlands, Malta, Italy, Luxemburg, Belgium and France (developed countries with exception of Malta),
  - ⇒ Denmark, Slovenia, Germany, Sweden and Austria.

The position of Slovenia and Malta in dendrogram (Fig.1) is quite incentive, because as to cultural orientation they belong to wider circle of developed western European countries.

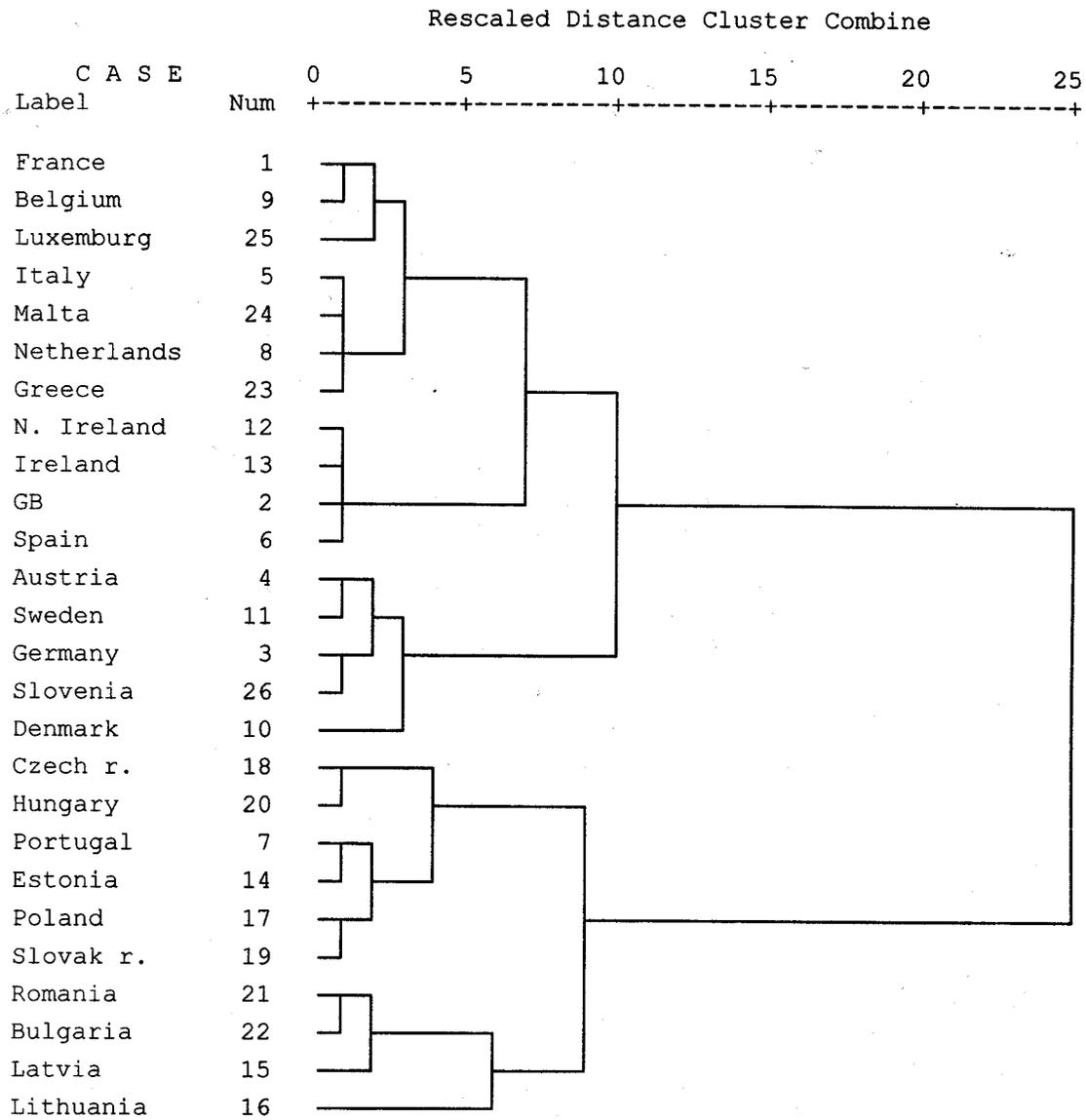


FIG. 1: COUNTRY CLUSTERS OF CULTURAL ORIENTATIONS IN EUROPE

### Conclusion Remarks

Inglehart (1997) has already included Slovene cultural orientations in his research and placed them in respect to our studied cultural dimensions, though at that time Slovenia was not considered as a separate entity. Its data was derived from Yugoslav part of his research. From the point of view of valid sampling it could be questionable, as well as his findings on predominant ex-communist cultural sediments among Slovenes. On the other hand our analysis, which is based on more current database from the year 1999 and includes Slovenia as a separate entity, in comparison with Inglehart's does not give reliable cognitions about big changes, at least not regarding the topics and to the extent they were encompassed into our empirical analysis. Predominantly is Slovenia part of modernistic

cultural circle, though there are still present symptoms, which are from West-cultural point of view considered as pre modernistic or even contra-cultural (e.g. authoritarian or expertocrate syndrome). In spite of this Slovenia belongs to Western cultural circle, closest to Germany.

In the end we can conclude that in Europe there are not only significant differences in cultural orientations on the national level, but also similarities. The differences can represent obstacles while introducing and enforcing uniform modern social structures, especially in transition economies, which still preserve pre modern cultural orientations, which are going to deepen the so called democratic deficit in these societies, not abolish it.

From the point of view of meaningful compatibility of structures and cultures we can expect difficulties in functioning of democratic institutions in transition economies. Trust in the fundamental democratic institutions, which the stability of democratic system depends on, is already now barely adequate. If there is a lack of trust in these structures, they do not function and if they do not function, then a structural crisis occurs. Democratic stability does not only depend on cultural factor (suitable democratic political and economic culture), but also on certain level of economic development. In bigger social or economic crises people can turn their back on expensive and inefficient democracy (this is Hitler's secret of success in the 30ies in Germany), which has only in the recent years become a general accepted norm of European culture. Transition countries therefore have double problem: cultural and economic.

Cultural variety on its own does not represent an obstacle for introduction of modern social structures in Europe, at least democratic ones, if we are going to evolve them in poliarchic direction. The existence of common cultural core in the European space it is most welcomed. The latter by all means does. The problem is that it does not include all post-communist countries. Most importantly, Slovenia is a part of it. The purpose of this paper was to resolve this dilemma.

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## End Notes

<sup>i</sup> The meaning of contra-culture's symptoms is the negation of modernistic and post modernistic culture. In the research (Bobek, Struk, Treven, Zver & Zivko 2003) they are shown as the rate of decline of democracy, acceptance of autocratism, expertocratism, system of privileges, acceptance of non democratic economy, state control versus free, justification of tax evasion etc. (see Zver 2002).

<sup>ii</sup> PDI is, as mentioned above, the statistical measure for the level of 'power distance' in individual national culture and it is based on Hofstede's research (questionnaire was being filled out by IMB employees worldwide). In empirical part of our paper PDI will have the same meaning, it will have more moderate size and quantity-wise it will express values of other variables, which will still have to clearly define mentioned cultural dimension. The same goes for other cultural dimensions.

<sup>iii</sup> Most important assumptions of Confucius are the following [Hofstede 2001: 235-236]:

1. Social stability is based on unequal relations between father-son, older-younger brother, man-woman etc.
2. Family is a prototype of all social organizations. An individual is not primarily an individual, but family member.
3. Virtuous behavior – other should be treated the same as we are (the golden rule of individualism).
4. Virtue (in respect to our own duty in life) means, that we try to gain certain skills and knowledge, to work hard, but not more that absolutely necessary, patience and persistence.

<sup>iv</sup> According to Hofstede culture is 'software of mind', which guides human behavior and among characteristics gained by socialization, also has the following principal attributes: it is shared, collective and serves for group distinction [2001: 411].

<sup>v</sup> Trompenaars, who has formed a useful model of cross-cultural differences, differentiate three levels of cultural expressiveness: the highest is national, the middle one is corporate or organizational, the lowest professional culture (1993).

<sup>vi</sup> Ronald Inglehart has more than two decades been researching cultural, economic and political changes in many world countries (World values survey). These changes occur in the direction from pre modernism and modernism towards post modernism (1997).

<sup>vii</sup> EVS Q49: Here is a list of qualities which children should be encouraged to learn at home. Which do you consider to be especially important? Please name five at most. Possible choices were: good manners, independence, hard work, feeling of responsibility, imagination, tolerance and respect for other people, thrift, saving money and things, determination, perseverance, religious faith, unselfishness, obedience.

<sup>viii</sup> Calculated index of obedience is transformed into  $v$  PDI.1, index of autokraticism into PDI.2. Because the lower value of PD correlates with western that is modernistic-post modernistic cultural orientation, we have to invert the values of both indexes. In the EVS results we have considered answer 'important' for the first variable, for the second one the answer 'bad'. Both dimensions are added up (PDI.1 + PDI.2), PDI represents their average. Unites (countries) will be later on compared on the according to the values of indexes of other cultural dimensions.

<sup>ix</sup> Interviewees were able to answer on a scale form 1 to 10, where 10 means 'Government ownership of business and industry should be increased' and 1 'Private ownership of business and industry should be increased'. Values between 6 and 10 mean different intensive etatic or collectivistic orientation and will statistically represent index of collectivism (ICOL).

<sup>x</sup> Index of collectivism is opposite pole of IIND – index of individualism.

<sup>xi</sup> Interviewees could choose 'important' or not choose this characteristic at all.

<sup>xii</sup> For further empirical analysis it is crucial, that we merge both measures into one dimension. Because we have for ICOL actually measured the opposite pole of IND, we have to transform it:  $IIND = (IIND.1 + (100 - ICOL))/2$ . Values of individual indexes will be first showed in table separately, than together.

<sup>xiii</sup> Interviewees could choose from 1 'agree strongly', 2 'agree', 3 'disagree' and 4 'disagree strongly'. Index MAS is the sum of answers 1 and 2.

<sup>xiv</sup> Interestingly, in this group we also find traditionally catholic Ireland, though in respect to other parameters we could anticipate different result.

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<sup>xv</sup> Options for the interviewees were 1 'would have been good' in 2 'would have been bad'. On the basis of answers 1 we measure in index FEM.

<sup>xvi</sup> Based on this dimension we measure the whole IFEM, which is composed out of average of the sum IFEM.1 + (100 – IMAS.1).

<sup>xvii</sup> Whole value of ILTO is an average of the sum of the first and second variable ILTO.1 + (100- ILTO.2).

<sup>xviii</sup> We have calculated DPI from the average of the following sum: (100 – IPN.1) + (100 – IPN.2) for each unit separately.

# Emerging Global Economic Order: Trends and Prospects

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## Abstract

The stalemate at the fifth ministerial summit of the World Trade organization (WTO) at Cancun, Mexico opened the season for the blame game. The developed as well as the developing countries, the global business communities and the non-governmental organizations are pointing the finger at each other. The paper argues that the stalemate is the necessary outcome of a conflict between the two policy regimes that have evolved in the last 30 years and are attempting to govern economic interactions in the global arena. These two regimes are inconsistent and sometimes are in open conflict with each other. The one regime, guided by free market ideology, aims at ushering in a borderless economy, polity and homogenized (Americanized) human world. The other policy regime, seeks to establish a regulatory framework to promote ecological stewardship, equity and cultural integrity. This paper suggests that the real cause of conflict is the difficulty of achieving the goals of equity and ecology within the framework of global-finance led process of economic growth.. It offers an alternative model of globalization that can meet the challenges of ecology, equity and economic growth in a socially-fragmented world.

## Introduction

The standoff at Cancun has been described as a setback, a debacle, a disaster sinking the WTO into oblivion, and, a tragedy for the world's poor. This failure has been blamed on intransigence and brinkmanship by both rich and poor countries; on the irresponsible and inflammatory behavior of the NGOs and the deeply flawed decision-making system of the WTO itself. The search for an optimal institutional superstructure for the emergent post-capitalist global village has been in the forefront in the public square for the last four decades. This search has exhibited two strands. One strand has been to establish a rule-based judicial system backed by an ability to impose sanctions against non-compliant parties. The GATT negotiations, culminating in establishing WTO in Marrakech in 1994 represents this strand. I refer to it as the Marrakech approach. The acceptance of such decision-making process depends upon criteria for evaluation and boundaries of acceptance which in turn depend upon sharing of an unified ideology by those who accept and ultimately support the judicial authority. The Marrakech approach articulates an ideology of free market economy. The other strand, labeled by me as the Rio approach, is to establish the rules of the game or global codes of conduct through compromises that reflect the diverse interests and opinions of participants. There has been persistent effort by the rich countries to shift more issues from the Rio approach to the Marrakech agenda. The Cancun stalemate reflects the failure of this effort.

The failure can be the result of the irrational, myopic or strategic behavior of all participants, resulting in a sub-optimal Nash equilibrium. This is however, unlikely in a situation of repeated encounters. The paper offers an alternative explanation. The inability of the WTO mechanism to earn, maintain and deepen its legitimacy is due to a perception that the free market ideology that undergirds this mechanism is unable to meet the central issue of the 21<sup>st</sup> century: How to achieve economic growth in an ecologically sustainable way in a socially fragmented world? This erosion of faith and of commitment to the ideological framework is partly responsible for the inability to achieve consensus on the scope and content of the institutional framework of the WTO.

## Three Major Expectations (3Es)

The new global economic institutional framework will have to meet three major expectations of the global community. There are (A) Economic Growth, (B) Ecological Sustainability and (C) Economic and Social Equity. The post World-War II social compact between the rich and the poor – within nations and among nations – has

emphasized economic growth as a primary goal of developmental policy. Internationally, the emphasis was on the state acting as a main agent and private sector as a junior partner to achieve the desired economic growth rate. Foreign aid was the primary means of development. The 1972 Stockholm Conference on “Human Environment” attempted to raise the issue of ecology. The poor countries in the South, rallying under the banner of “poverty is the worst form of pollution,” pushed for adding the right to development (through a demand of respect and justice but, in practice, equated to economic growth) kept the focus on economic growth. The 1992 Rio conference on “Environment and Development” ended up with a strong emphasis on development (meaning economic growth) rather than on environment. As a sideline, Rio also raised the issue of vertical equity among nations by highlighting the principles of common but differentiated responsibilities, burdens and benefit-sharing and advocating technological transfer and financial assistance from the North to the South. In short, in principle, the North had accepted the principle of vertical equity, had agreed to act first, bear a large part of the adjustment burden, share environmentally safe technology and provide financial assistance to adopt them and then the South will commit itself to any caps on future emission levels. Meanwhile, they will abide by same reporting duties. The south insists, and the North accepts, that there will be no ecology without equity among nations.

On the ground level, there has been some progress in building structures and policies to ensure ecological sustainability but no progress on the vertical equity front. The withdrawal of U.S. and possibly Russia from the Kyoto Protocol and the inability of other industrialized nations to complete the ratification process reflect the conflict between ecology and economic growth. The hesitancy in moving forward by the North arises primarily from the desire to protect the process of economic growth (which at present, is contingent on high fossil energy use). The absence of the process of technological innovation focused on low-energy use in the North and the active pursuit of high fossil-use growth path by the South dims the hopes of any progress from the demand side on the ecological front. The structural adjustment policies of the IMF and the WB, the debt relief programs of G-7 and the failure of social summit in Copenhagen shows clearly that the North is uninterested in meeting its commitment on the vertical equality front. The new developmental consensus that views transnational corporations (not states) and global financial flows (not multilateral aid) as the main agents of development makes it impossible to achieve vertical equity among nations. There is a conflict between the goals of economic growth and equity.

The rise of anti-globalization movement, the growth of nongovernmental civic organizations (NGOs) and the upsurge of fundamentalist movements asserting respect and dignity of different social groups have raised the issue of vertical equity, not only among nations, but also among various social groups as well as interpersonal equity within nations. The 2002 Johannesburg World Summit on Sustainable Development ended up with a focus on ways to deal with poverty and achieve equity in human society. The World Bank’s 2003 report talks of transforming institutions to achieve economic growth with equity (quality of life for all groups) in an environmentally and socially sustainable way. Equity has taken place alongside economic growth and ecology as a major societal expectation.

These three expectations are at present on the collision course. We need an ideology – a mental construct – that provides a roadmap about how and with what “rules of game” we can resolve these conflicts. This ideological base then can provide a blueprint for individual behavior, for institutional reorganization and for evolving coherent policy regimes. The WTO-IMF-WB institutional and policy regimes embody an ideology that asserts that free market – especially in the financial markets – will achieve efficiency and a higher economic growth that is a necessary condition for achieving equity (among nations and among groups within a nation) and ecology . The WTO as a judicial arbiter makes its decisions within this framework of ideology and it is this ideology that links the exercise of its powers to the support and acceptance by the member states. This ideology, sometimes referred to as Washington Consensus, is enforced by the IMF and WB with their financial clout.

## **From Uruguay to Cancun**

The dominance of financial interests emerging from fluidity of finance across national boundaries in the developed countries has led these countries to bring more issues under the WTO agenda. This effort began with the Uruguay round when negotiations on agriculture and services were included as a “built-in-agenda” along with discussion on

further tariff reductions and the implementation issues. Doha added negotiations on trade and environment as well as on intellectual property rights on the agenda. At Singapore; four more issues - (A) trade and investment, (B) trade and competition policy, (C) transparency in government procurement policies and (D) simplification of trade procedures – were recommended for inclusion on the agenda. There was also an attempt at Doha to bring the examination of the relationships between trade, debt and finance as well as between trade and transfer of technology under the preview of the WTO. Cancun was supposed to authorize the start of negotiations on these matters.

## **Free-Market Ideology**

The free market ideology that undergirds the WTO-IMF-WB institutional complex can be summarized in three propositions.

- (1) Globalization of trade and finance will lead to higher economic growth. The proposition is not extended to globalization of labor flows. Witness the debate on outsourcing of skilled jobs and immigration laws concerning unskilled labor.
- (2) Higher economic growth will improve equity by reducing poverty and inequality.
- (3) Higher economic growth will also create potential for progress on ecology front. It is politically and socially easier to devote a portion of GDP increment to solving ecological problems instead of redeploying a part of stagnant or slow growing GDP.

These propositions present relationships for which both analytical argument and empirical evidence, to say the least, is ambiguous.

## **Trade and Growth**

The relationship between openness to trade (removing or lowering of trade barriers) and economic growth is not clear-cut. The outcome, as Sirinivasan points out, depends upon whether the forces of dynamic comparative advantage pushes economy towards or away from the direction of activities that stimulate long term growth.<sup>3</sup> Frankel and Romer's attempt to unravel the causation between trade and growth<sup>4</sup> suffers from a weakness that they link growth with trade outcome (exports, imports) measures, rather than trade policy (tariffs and non-tariffs) measures.<sup>5</sup> Even World Bank has recognized the fact that greater globalization does not imply adoption of pro-trade policies. The rise in trade may have been due to other policies or even to pure chance.<sup>6</sup> Even if there is a link, it does not say anything about the direction of causality per se. Has trade caused faster economic growth or faster growth has led to more exports which in turn enabling more imports, has lead to high trade –GDP ratio. Faster growth may be accomplished by high productivity growth reducing per unit cost making exports more competitive. It is analytically possible that causality may be in the reverse direction.

The only evidence offered is anecdotal. China, India and East Asian countries are usually cited as fastest growing economies and their achievement is attributed to their increased integration with the world economy. Yet, both India and China had achieved their high rates of growth prior to their opening up process. India had achieved these rates in 1980's, a decade before it embarked on its policy of liberalization. China picked up its growth rate since 1979, before it opened up its economy for world integration. East Asian countries, e.g. South Korea; had pursued a policy of import substitution (behind a tariff barrier) initially followed by active exports promotion policies as part of its industrial policy. Sub-Saharan African countries have a high trade/GDP ratio and their growth performance is below that of India and China who are relatively the less globalized and the less open economies. Both of them had raised their investment rate in previous three decades and had a large public sector concentrating on building social and physical infrastructure. These factors also contributed to their high growth rate in recent decades. This does not mean that trade is disadvantageous. It only means that an opening up process can be managed within the framework of an active industrial policy pursued by a country. It is even less unclear that openness to global finance will bring more foreign direct investment (FDI) and/or foreign institutional investment (FII) and will lead to higher economic growth.. FDI and FII (portfolio) investment historically has gone to countries that have

vibrant economies. Even China was able to attract more FDI only in the 1990s; after a decade and a half of liberalizing its economy and even with the presence of overseas Chinese to serve as a conduit for such transfer of capital. India has exceptionally low levels of FDI for an economy of its size and its growth ratio. In recent years, openness to global finance has led to severe financial crisis in several countries. India, China, Malaysia were able to escape or minimize the impact of financial crisis in East Asia through controls on flows of global finance. Certainly, FDI can bring more resources and may bring new technology and management. Yet, that is not the only way to improve productivity of domestic resources. These flows and their timings and sequence can be controlled and managed within the framework of an innovation policy adopted by a country.

## **Trade and Equity**

The weakness of the first proposition undermines the strengths of the other two propositions. The World Bank has estimated a decline of 200 million in the number of poor in the world between 1980 and 1998<sup>7</sup>. The estimate is contingent upon the definition of poverty line and the methodology used. Another World Bank report estimates constancy in the number of poor between 1987 and 1998.<sup>8</sup> Deaton explains this inconsistency in terms of a lag in the emergence of information on poverty trends.<sup>9</sup> These estimates are heavily influenced by the high growth rates in India and China. Estimates of national average are weighted by country population in estimating global distribution of income in these calculations. High growth rates for both these countries are bound to show a reduction of the degree of inequality between the developed and the developing countries.

We are not interested in international equity (equity among nations) but equity at the global level or between different social groups at the domestic level. The ideal indicators will be the ratio of per capita income of the top decile with that of the poor in the lowest decile, either globally or domestically in each country. A broad consensus among scholars on this issue is that inequality in this sense has worsened since the 1990s.

This should not come as a surprise. Globalization based on frictionless mobility of capital accompanied by the absence of globalization of labor (e. g. immigration laws) is likely to shift income distribution from labor to capital. Demand for labor will become more elastic for each country. This cannot but increase income inequality both globally and domestically.

The issue of equality also encompasses the issue of equity among different human groups; i.e. religion, regions, gender etc. That raises the question about who participate in the process of globalization and who benefits or bears the costs of globalization. The present focus on the comparison of the mean income of different countries does not deal with these dimensions of equity.

## **Trade and Ecology**

The pursuit of high economic growth via globalization based on unrestricted mobility of capital and goods is unlikely to lead to ecological sustainability. There is no evidence that transnational corporations are willing to embark upon a low emission path. Both industrialized and new industrializing countries are pursuing a growth path predicted on high energy intake. The struggle among them centers on who will get how much of limited environmental resources. The real losers in this process are marginalized and economically vulnerable traditional and indigenous communities that directly live from nature. The elite groups in all societies, as primary beneficiaries, are interested in economic growth (via global finance-led growth process) and ignore the costs imposed upon these marginal, locked-out groups. There can be no ecology unless we develop low-energy-use growth-path. There will be no ecology within the present high energy-intake growth-path.

This failure of the free-market ideological complex to meet the three major expectations of human world has eroded the ideological commitment and fidelity of the member states. Hence their unwillingness to expand the ambit of the WTO. The stalemate at Cancun is the visible expression of this ideological breakdown. In the absence of an alternative coherent ideology that reconciles these major expectations; the effort to establish a judicial regime are doomed to failure. It is this poverty of ideas that is reflected in the Cancun stalemate. Till then, decisions and

policies will be the result of a social drift; of compromises that represents interests, opinions, and aspirations of different parties. These compromises will be logically inconsistent, wasteful, reactive rather than pro-active and will lack a coherent vision. Yet, they will be flexible and responsive to the crisis and the urgent needs of different groups. The Rio approach, at present, seems to be the more effective and viable approach in making our collective choice regarding the emerging architecture of world economic system.

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SECTION 15  
SELECTED ABSTRACTS



## **Association between Communication Apprehension and Emotional Spiritual Quotient among Malaysian Students**

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### **Abstract**

Communication skills and emotional spiritual quotient are important for employees to achieve organizational goals and mission. In order to achieve the organization's objectives, the level of communication apprehension must be low and emotional spiritual quotient must be high. This research intend to find out the level of communication apprehension and emotional spiritual quotient of students, whether significant relationship exist between all the dimensions of communication apprehension and emotional spiritual quotient, and whether there exist any differences between the communication apprehension and emotional spiritual quotient based on demographic factors. A total of 340 respondents were selected using the stratified random sampling method. The results indicate that there exists a significant and positive relationship between communication apprehension and emotional spiritual quotient. There are no significant differences between communication apprehension and emotional spiritual quotient based on demographic factors.

## **Creating Computer Literate Employees: Challenges for Office Managers**

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### **Abstract**

The role of office managers in seeing that employees are equipped with the latest office technology skills is challenging what more with the existence of different age groups in the organization. Previous studies have focused on the identification of knowledge and skills that individuals need to successfully adapt to changing work environment (Daley, 1997; Kozlowski, 1995). This paper tries to answer the opinion of the employees' and problems adopting computer technology in the workplace. Selected senior office workers were interviewed and their responses were analyzed based on the theme of the research. Participants are 7 senior office workers who have worked for at least 15 years in a various government departments. This research found that most of participants perceived computers as a means to enhance their career development. Many of them declare that they used to learn the use of computers informally with less effort by employers. This finding proves that the management can still contribute a lot to the creation of computer literate employees regardless their age.

## **Limitation Period of Action for Specific Performance in Contract of Sale of Land: Conflicting Legal Contention**

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### **Abstract**

In all legal systems based on common law, limitation period plays an important part in all its civil actions. Failure to comply with the limitation period would diminish the action instituted. The limitation period for all actions founded on contract pursuant to section 6 of the Limitation Act 1953 is 6 years. However, based on the decided cases, the limitation period for action of specific performance of a contract of sale of land, notwithstanding that this action is unequivocally founded on contract, is 12 years, not 6. This is because all actions for specific performance of contract of sale of land were and are held in the decided cases to be actions 'to recover land'. Pursuant to section 9 of the Limitation Act 1953 all actions for the recovery of land, their limitation period is 12 years. However, in the author's view, the limitation period of action for specific performance of contract of sale and purchase of land should instead of 12 years, be 6 years as well, as this action too is an action founded on contract. However this is contrary to the judgements found in the decided cases. This article examines these cases and also provides the grounds to support the contrary contention of certain learned legal author in regard to the limitation period of specific performance for contract of sale of land. This article will attempt to unveil and study the grounds and policies of the courts concerning the issue.

# **Managing Organizational Change and Development: A Human Resource Management Perspective**

*Mohamad Zainol Abidin Bin Adam*

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## **Abstract**

No one in any organization is indispensable with the challenges brought about by change. All members in an organization should be dynamic to cope with the demands and ordeal of change. With the advent of globalization, top management is put to test in the frontline vis-à-vis employee and corporate productivity. Then, how can executives effectively manage change and development in the light of human resource management?

This paper revolves within the context of managing change and development in institutional setting. Specifically, it discusses sources of resistance to change. It also examines the changing environment of HRM. Likewise, this paper advances that everyone in the organization needs to grapple with all types of change. The paper also spells out that to implement change, the top management needs to develop a shared vision and communicate it; empower employees; involve employees throughout the change process; establish a sense of urgency; and, lead by example.

## **Replacing Foreign Workers with Locals: Saudization and Service Industry in Saudi Arabia**

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### **Abstract**

The Kingdom of Saudi Arabia, like several other states in the Arabian Gulf region, is seeking to reduce its dependence on oil and promote a new economic order which will be characterized by greater diversity. One important element of the policy, at a time of rising unemployment, is that of maximizing job opportunities for locals and reducing the size of the expatriate workforce by installing Saudi nationals in public and private sector posts previously held by foreign workers. This job localization program has been termed the Saudization Drive and the government is vigorously pursuing ambitious targets with a view to realizing the perceived benefits of the process for individuals, organizations and society. The background to the Saudization initiative and its features are explained in this article which focuses on implications for the Kingdom's service industry, identified by the government as a growth area of the future. Information used in this study was obtained from published research, service sector experts and the authors' own observations made during his employment for a five years term as a faculty member in a premium university and as a management consultant in Saudi Arabia.

## **Skills and Other Requirements for Supporting Vendor Development**

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### **Abstract**

As Malaysia steps forward to achieve a developed country and as well as to achieve the objective of Vision 2020, Malaysia has to extend its export market which was traditionally agricultural-based economy to manufacturing and production-based economy. At the same time, local market had increase simultaneously with current trend.

The dynamic economic growth in 90's decade had promoted Malaysia as an example among the developing countries. However, success is thorny to arrive at. Together with growth in manufacturing, attention also had been given to increase the usage of local resources so as to create job opportunities in the country.

The current economic growth indicates that economy currently is in the process of recovery after the recession. Therefore, all the economic activities will get back to where it was before the recession period. Thus, to achieve the economic growth before recession, government had introduced several programs to encourage the production sector such as Vendor Development Program (VDP).

This paper will discuss the development and issues relating to vendor development program in a regional development organization.

# **Technology Adoption and Risk Management in the Malaysian Agriculture Industry**

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## **Abstract**

Of late the agriculture industry in Malaysia has been given the attention that is long overdue. Hailed as a sector that is ailing and in the sunset industry, the agriculture sector is very much overshadowed by the manufacturing sector. The need to transform this industry is realized when food import bills rose to a staggering high of RM11.3 billion. The government is determined to transform this sector and turned it to a modern and money spinning industry. Research and development projects are underway to produce crops of high productivity and newer methods of managing the land. Nevertheless, not much research is being conducted to look into the loss exposures and risk management measures employed by the farming community. This research attempts to explore risks faced by the farmers and the methods used to mitigate these risks. It also examines the farmers' perception and also acceptance forwards the adoption of new technology (such as crop Insurance) in minimizing their loss exposures.

## **The V-Factor in Decision Making: Its Impact on Organizational Development**

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### **Abstract**

This paper looks into the significant of values in the decision-making process and the impacts they have on organizational development that one cannot ignore even at the slightest fraction of a second for it is able to determine the outcome of what is to be implemented or carried out. More so, when we take into account that Organizational Development is associated with how people, individuals and groups of various levels with values intact or non-existed, act in an organization.

No doubts that values practiced are based on the set-up or background of one's ethnicity, culture and religion, still their universality when identified is, nevertheless for all to consider. The differences are no obstacle to a global understanding on what values to come into play when a decision is about to be reached in order to bring about planned changes. To this effect, once a decision is made, its impacts are far reaching. On a global scale, the ever increasing of white collar crime rates of several giant conglomerates, for instance, is at best cases of values ill-considered or worst still not considered prior to decisions that have all but gone haywire.

## **Which Strategy? To Exit or To Defend? A Dilemma for the Malaysia's Rubber Industry in Facing the Globalization Onslaught**

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### **Abstract**

Rubber has been Malaysia's main income export earner for almost a decade. Since Independence in 1957, the total area planted under this plantation crop has increased and reached at its peak a staggering 1.2 million hectares. There were 300,000 rural dwellers that were involved in the production of the rubber produce. The price at an average of USD 1.00 per kg of processed rubber in the world market had made Malaysia achieved a respectable economic growth rate and was able to finance the country in its development program. Come 1980's, Palm oil became the number one agricultural crop earner. The country's wealth and the standard of living improved such that the laborious job in the plantation turned to be no longer preferred. With the competition from synthetic rubber and the cheap labor force of the neighboring countries, Malaysia suddenly discover that rubber production and its revenue obtained from the rural areas is no longer a preferred choice. Losing to the neighboring countries in terms of cost of production, land and labor, is a reality. The competitive advantage that it once held has dwindled. The basic indicator namely the total planted area is declining steadily (900,000 hectares in 2000). Government has been propping the industry up but is it worth it? Or should the life- support program be plugged out? This paper will discuss some possible exit as well as protective/defensive strategies open to the country. It is going to be a strategic decision and who dares make the final decision?

## **Global Variety and Multinational ERP Project Management**

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### **Abstract**

Information system project environments are rapidly changing, with greater diversity in technologies, people, and boundaries. One of the major driving forces behind this emerging paradigm in IS/IT project management is the deployment of global enterprise-wide information systems such as enterprise resource planning (ERP) systems. Growth in global systems has been driven by multinational organizations and by expanding networks of supply chains. Global systems often face increased variety in conditions, caused by national differences in cultural, language, and regulation differences, as well as different opportunities to obtain professionals. This paper intends the extension of current understanding of the nature of global variety. It considers four cases of multinational ERP implementation projects. Kirsch's (2000) contingency model is used to evaluate project characteristics of multinational ERP implementations. Findings identify three categories of global variety (socio/psychological, economic/political, and demographic/geographical) and confirm their effects on multinational ERP implementation practices. Implications for general multinational IS project management are drawn.

# **Marketing Problems of Small and Medium Size Enterprises (SME) faced in International Markets and their Importance in Economic Development (A Case of Turkey)**

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## **Abstract**

Different economic systems have appeared between countries of world and the policies of some countries acting together have resulted in arising free trade zones, customs union and economic union in several levels. The abilities and desires of firms to expand foreign markets and their determinations to accomplish this task indicate not only their success but also their contribution to development of country.

The sizes of business have changed in nowadays according to economic conditions in the growing industrialization process. Because of their position in the markets and their competitive power together with contribution of the employment, these firms are very important to our country that is a tool for economic development. Turkish economy has followed a closed model till 1980's. In the 1980's, the policies of liberalization were valid. Because of these improvements, SMEs have become more important as a tool for economic development. Since their dynamic and flexible structure, at the same time, SMEs have been very important economic unit on structural change and technological harmonize and SMEs have been a tool that they reduced inequality between regions and social classes. In addition, SME's marketing activities play a key role on accumulating of capital, increasing in productivity and creating new products and so forth.

In this paper, we would like to find some solutions for SME's marketing problems with collecting data via the interview. The problems facing the SMEs have been examined in both international and domestic levels and because of this, it has been tried to discover advantages and disadvantages of SMEs in the competitive environment. In this way, the problems facing in international and national levels have been compared to each sector and then we discussed their contribution on economic development, we used Paired t ways and Wilcoxon because of sample size

# **Intra-Day and Inter-Day Price Volatility as a Measure of Trading Friction in Domestic and International Equity Markets**

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## **Abstract**

The ability of an equity market to accommodate a series of trades and incorporate information into stock prices with minimal price volatility is an important aspect of its quality. We use return series with various differencing intervals that are as short as half-hour and as long as two weeks to investigate the short-term volatility accentuation in five equity markets: Nasdaq and the NYSE in the US, and the London Stock Exchange, Deutsche Boerse and Euronext Paris in Europe. Variance-ratio statistics are employed and results confirm an intra-day reverse J-shaped pattern of half-hour volatility. In addition, we find evidence of an intra-week pattern in volatility with higher volatility on Monday opening periods and Friday closing periods. The evidence also suggests an accentuation of volatility during longer periods, such as 24-hour intervals. This accentuation appears to subside when we extend our differencing interval to longer periods such as one-week or two-week returns.

## **Regionalism in Hiring Practices of University Business Schools-A Canadian Study**

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### **Abstract**

The need for university instructors in the higher education system is melded within a world environment that has increasingly become global in both commerce and information systems, resulting in increasing competition to meet these needs. The potential of global educational standards and qualifications is recognized by the World Trade Organization (WTO) which enforces the General Agreement on Trade in Services (GATS) agreement. However, in reality, education as a service is not included in mutual trade agreements for many members, being restricted as a national service (AUCC, 2003a). The inherent regionalism in higher education tends to mitigate a free flow of academics between countries and regions to develop the increasingly global perspectives required by business students in all regions of the world.

Universities serve as a means through which national culture is questioned, researched, and formulated. The Canadian culture that values cosmopolitanism, internationalism, and respect for diversity and tolerance, is increasingly becoming unique within North America (AUCC 2003b). The Conference Board of Canada recognizes the importance of both Canadian students studying abroad and international students studying in Canada as key indicators of the countries' economic well being (Canadian Broadcasting Corporation, 1999). However this is not recognized by Canadian federal government funding sources that spent less than \$1 (Cdn) per capita on international exchange programs for Canadian students. Less than one percent of Canadian students participate in international exchange programs (AUCC 2003b).

A review of academic staff who listed their qualifications on Canadian Business School websites indicated there were 642 (or 25.7 percent) who listed their terminal degree as originating in a Canadian University, and 657 (or 26.3 percent) who listed their terminal degree as originating in the United States. Of Ph.D or equivalent degrees obtained outside of North America (235 or 9.4 percent), the largest number was obtained in England (101 or 4 percent), with the next closest being from France (64 or 2.6 percent). The number of professors with degrees obtained in countries other than the 4 countries listed above is a mere 2.7 percent. There were 525 (or 21 percent) who did not disclose information about either the origin of their terminal degree.

Questionnaires were also emailed to Deans and Directors of Canadian University Business Schools where the primary language of instruction is English. 18 of the 45 Canadian University Business Schools surveyed responded to the questionnaire for a credible response rate of 40 percent. The schools responding represented nine of ten Canadian provinces, (six provinces with at least 2 responding Universities) and were representative in terms of size and known teaching vs. research orientation. The survey was designed to examine two concepts related to practices of hiring new (first hire) faculty candidates: 1) perceptions of the relative desirability of various candidate attributes including world region or country of the candidate's terminal degree (results- Table 1) and 2) capture of perceptions of Ph.D. candidates with terminal degrees from the UK.

TABLE 1: PERCEPTION OF PH.D. CANDIDATES BASED ON COUNTRY OR REGION OF TERMINAL DEGREE SCHOOL

Graduates from schools in:		Mean	Perceived as Superior to with Statistical Significance (Paired T tests $p < .05$ )
Perceived as Superior to Cdn. PhD Grads	US n=21	2.80	Western Europe, Eastern Europe, India, Pacific Rim, Other
	Canada n=21	3.00	Western Europe, Eastern Europe, Pacific Rim, India
Perceived as Inferior to Cdn. PhD Grads	*UK n=20	3.16	India
	Western Europe n=21	3.47	None
	*Eastern Europe n=14	3.86	None
	*Pacific Rim n=15	3.47	None
	*India n=15	3.87	None
	*Other n=12	3.29	None

Overall the candidate's publication record and the research reputation of the candidate's terminal degree school are most important. AACSB accreditation of the candidate's terminal degree school was important primarily only to research- oriented schools. A minority but substantial perception of UK graduates that they are less suitable than Canadian PhD graduates is based on the UK program being based on independent research and the Canadian system being course based with a research component, similar to the US pedagogical model

While it is recognized that Universities are crucial to the continuing post secondary educational needs of the population and of society's continual striving for advancement, it appears that Universities face a dichotomy in the precepts to their educational staff. University professors receive their terminal degrees in schools that are primarily known for their focus on research. If these schools are located in North America, the terminal degree includes a teaching component as well as research. If these schools are located in the UK, the course work is far less structured with increased emphasis on research. The research that is taught or learned in UK institutions, however, is perceived in this survey of the academics in Canadian schools to be more "narrow in focus", not as well grounded in research methods and philosophy, and not based as well in the foundations of knowledge. This may stem from the North American increasing dependence on quantitative research while the UK more readily acknowledges the different uses of different methodologies, leaving the discrepancies between the two models as a source of on-going debate.

On a more general note, the global reality of the world of commerce today seems to be understood by many Canadian universities to exist. The 9.4 percent population (2.7 % when degrees from UK and France are removed) of non North American Ph.D. degrees as represented in the 50 Canadian University business school web pages seems to belie this emphasis.

The need for standards and a levelling of educational requirements and expectations is recognized by the WTO although the nationalistic retention of control over education denies this. With the increasing globalization in commerce and communication, world events are increasingly impacting the North American continent. The Conference Board of Canada recognizes the importance of international education. Yet from the results of this survey, this trend is not recognized by the educational institutions that are preparing tomorrow's business leaders. Replication of this type of study in the US, Europe and the Pacific Rim as well in emerging economies would seem to be of interest to the global business education community. It is the author's belief that Canada is far from alone in terms of regionalized hiring practices in an increasingly global business education environment.

# **Development of the Securities Market in Bangladesh Over the Past 50 Years: A Critique**

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## **Abstract**

The Bangladesh securities market came into being in 1954. Despite its operation for half a century, its growth is not impressive. The factors leading to the stagnation of the market include, inter alia, the existence of weak legal and regulatory frameworks, the absence of active market professionals, the predominance of individual investors, and a serious dearth of foreign and institutional investors. Legal and regulatory weaknesses are considered to have critically hindered the market's potential growth. Some important laws are outdated, and the regulator has introduced some unrealistic reforms over the years. Most of the reforms accomplished thus far concentrate on incentives to investors and issuers alike, but nothing significant has been done to provide protection to the investor. This study suggests that the issue of investor protection be addressed on a priority basis in order to achieve real growth for the ailing capital market.

## Historical India – Historical MNE? An Initial Enquiry

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### Abstract

The purpose of this paper is to conduct a preliminary enquiry into the proposition as to whether the multinational enterprise (MNE) *could have* originated in historical India. For the purposes of this paper, the historical period is defined as recorded Indian history ending with British colonization of India. Given this assumption, it is self-evident that there is no such extant Indian MNE which predates or was concurrent with British colonization of India. The MNE is defined as per the broad definition offered by the Organization for Economic Cooperation and Development (OECD) and the United Nations Center for Transnational Corporations (UNCTC) : “ an enterprise that engages in foreign direct investment (FDI) and owns or controls value-added activities in more than one country” (Dunning, 1993).

We start with an assertion that there is no linkage between historical India and historical MNE. This is suggested by the celebrated work of Max Weber (2001) on ‘the spirit of capitalism and the protestant ethics’. From the economic philosophy perspective, our research belongs to the context of capitalism. From the economic and business history perspective, our enquiry relates to the research of Moore and Lewis (1999) on the ‘birth of the multinational’ in the 2000 years preceding the early Christian era and possibly associated with the Assyrians, Phoenicians, Greeks and Romans . Research of this genre permits the antithetical perspective that given the historical existence of the MNE, there could have been the possibility of the MNE in historical India. However, both these works, belong to a relatively proximal space – that of the Occident. In that sense, the ‘strategic geography’ is relatively similar (Kemp and Harkavy, 1997). Our research shifts to the Orient, and more specifically to India, with a comparatively dissimilar ‘strategic geography’. The time period is somewhat similar. Indeed, our enquiry springs from the Moore and Lewis (1999) research.

Our preliminary investigation explores

- Birth of the MNE:
- History of Globalization:
- History of Capitalism
- Mohanjadaro and Harappa were the twin cities of the Indus Valley Civilization.
- Spice Route (& silk Route)
- Division of Labor in historical
- Organization of the Indian Village
- Role of Colonial Powers

Whether the historical MNE could have or could not have originated in historical India has fundamental consequences for research on the Indian context as well as on the theory of the MNE. The above issues are pulled together to examine the possibility of whether historically India had the necessary context for the origination of the MNE. If it was not so, the obvious question is what factors need to have been in place to give birth to the historical MNE, or else, the absence of what critical factor (s) prevented the MNE’s fruition. The study, however, should be considered a preliminary enquiry.

# **Analysis of US Public Companies Disclosures of Audit and Non-Audit Fees Before and After the Sarbanes-Oxley Act**

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## **Abstract**

Due to the failure of the auditing firms in U.S. to detect manipulations of financial statements in the late '90s and early in this century, a lot of scrutiny was placed on the manner in which the profession governed itself. After the sudden collapse of Arthur Andersen, following the Enron scandal, Congress enacted the Sarbanes-Oxley Act, primarily to address the issue of the perceived loss of independence of the auditing firms. One area addressed in the act is the issue of the provision of nonauditing services, which is proscribed for most non-audit services. The purpose of this paper is to analyze the disclosures made by U.S. companies in their financial statements for the amounts paid to auditors for audit and non-audit fees prior to and after the enactment of Sarbanes-Oxley. The results of the study will enable us to understand if the theory of audit fees being "loss leaders" for auditing firms to derive primarily non-audit services is true, as the audit firms would have to adjust their fees to reflect the actual costs of the audit absent the income from non-audit services.

## Costa Rica and Jamaica's Trade Balance: Co-integration and Error Correction Modeling

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### Abstract

During the second week of January, 2004 the leaders of the countries of the America's met in Monterrey, Mexico to finalize a date for the commencement of the Free Trade Area of the America's. When President Bush in 2002 received "Fast-Track" negotiating authority from Congress, it made it all but certain that within five years almost all of the nations of this hemisphere would have acceded to a Free Trade Area of the Americas (FTAA). The crisis in Mexico months after the 1994 initiation of NAFTA made many in Congress leery of approving "Fast-Track" precisely because of the perceived ubiquity of macroeconomic stabilization problems within FTAA. Against this checkered background this paper examines the relationship between the trade balance and the real exchange rate for two countries in the western hemisphere: Costa Rica and Jamaica.

Starting from a static Monetary/Keynesian two-country equilibrium model of international trade, the estimable form of the trade balance can be expressed as:

$$B = f(\text{Rex}, Y_d, Y_w)$$

Where B is the trade balance, Rex is the real exchange rate, Y<sub>d</sub> is domestic income and Y<sub>w</sub> is world income.

A cointegration test is then carried out on the long run elasticity, with the Bickerdike-Robinson-Metzler condition being validated if a real currency depreciation improves the trade balance. Next, an error correction model would be developed to investigate the dynamic adjustments in the short run to chart the longevity of a real depreciation. This exercise tracks the percentage of the path back to long run equilibrium that is completed in the first two years. Knowledge of the short run dynamics allows for the development of appropriate export promotion policies that are consistent with the likely FTAA rules.

## Evidence and Perspectives on Arrangements of Exchange Rates System in Asia

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### Abstract

There has been a common understanding among people that world prosperity will not be achieved without the continued prosperity of the Asian economy. The prosperity of the Asian economy will not be achieved without achieving monetary stability in the Asian region.

I have been working on a project concerning the monetary stability problem in Asia. The most contentious point about the monetary stability problem in Asia is how to establish a concrete exchange rate system in Asia. Policy makers in any country involved in monetary transactions have had strong concerns about the use of exchange rate regimes because of concern for their own country's interests in international monetary flows.

In seeking to refine the analysis, I will argue that arrangements of exchange rates should be based on an academic survey which has been conducted with academics, business persons, journalists, governmental policy makers, and so on in the Asian region.

The main arguments described in the academic survey are listed as follows:

1. What significance can be seen in establishing the optimum currency area based on the Japanese Yen in Asia?
2. Would the basket system be more preferable including Japanese Yen, US Dollar, Euro, and other Asian currencies?
3. What currencies in Asia should be included in establishing the basket system in establishing the monetary stability in Asia?
4. Should a single currency system be established in Asia?
5. In establishing the single currency system, what conditions should be maintained in Asia?
6. Should the Asian Monetary Fund be established in Asia to maintain monetary stability?